Kentucky School Bus Driver Training Manual

Revised November 2020

ACKNOWLEDGEMENT

The Kentucky Department of Education recognizes the need to have a uniform driver training program. The Kentucky Department of Education worked with the Federal Motor Carrier Safety Administration (FMCSA), Kentucky State Police, Kentucky Transportation Cabinet, Kentucky transportation directors, and Kentucky driver trainers from throughout the state to incorporate updated training material and remove outdated information. Together, we have developed a standardized and comprehensive school bus driver training instructor manual, which will conform to future FMCSA requirements, and continue coordinated efforts to ensure the safety of school children statewide.

The purpose of the instructional program is to provide school bus driver training instructors across the Commonwealth of Kentucky with a standardized and comprehensive curriculum to train and qualify new and previously employed school bus drivers.

FOREWORD

The information contained herein is the official curriculum of the Kentucky Department of Education to be used in training local district school bus drivers.

TRAINING CONCEPT

The purpose of this training manual is to use in the:

1. Training and certifying Kentucky School Bus Drivers and Training Instructors, also known as Driver Trainers.
    a. Driver trainers shall satisfactorily complete curriculum requirements and evaluation through a training workshop, provided by the Kentucky Department of Education, Division of District Support, Pupil Transportation Branch, prior to the award of a driver training instructor certificate. A driver trainer shall attend an annual six-hour update, approved and developed by the Kentucky Department of Education, Division of District Support, Pupil Transportation Branch.

2. Training, certifying, and re-certifying Kentucky school bus drivers utilizing this

curriculum.

a. School bus drivers shall be trained using the "Kentucky School Bus Driver Trainer Manual," and satisfactorily complete training requirements and evaluation by the driver trainer prior to receiving a driver certificate from the Kentucky Department of Education, Division of District Support, Pupil Transportation Branch.
b. Kentucky school bus drivers require an annual update in order to renew their certification. The annual update consists of eight (8) hours of classroom, on-the-track and over-the-road training provided by the driver trainers and pertaining to the core curriculum.

NOTE: A certificate of Completion/Renewal will be issued by the driver trainers upon satisfactory completion of the initial driver training course and after each scheduled eight (8) hour mandatory annual update.

The Kentucky Department of Education, Division of District Support, Pupil Transportation Branch, grants certification of all drivers and driver trainers. This certification may be revoked, at any time, at the discretion of the Kentucky Department of Education, Division of District Support, Pupil Transportation Branch. Improperly training a driver, falsifying documentation, failure to properly certify a driver, and failure to attend mandatory updates, may qualify as reasons to have certifications revoked.

INSTRUCTOR CLASS ENROLLMENT

A school district may nominate a current school bus driver, or person with at least two years of experience with school buses, to become a school bus driver trainer. This person must complete the curriculum and be dedicated to the enhancement of school bus safety in Kentucky. Independent contractors or private school personnel may attend these classes when openings are available.

CHAPTER 1

KENTUCKY LAWS AND REGULATIONS GOVERNING SCHOOL BUS DRIVERS

OBJECTIVES

- Understand state laws and regulations to legally operate a school bus.
- Gain knowledge and understanding of the daily demands and responsibilities required of a school bus driver.
- Be alert of the responsibilities involving local transportation policies and regulations.

Laws and regulations can be printed from the Kentucky General Assembly website.

INTRODUCTION

It is not the purpose of this unit to cover all relevant laws and regulations. We will only discuss those pertaining to a school bus driver. There are many other laws, especially traffic laws, which you should know and obey. You should also be aware of the policies and procedures adopted by your local board of education.

Let's discuss some of the laws and regulations that are most important to you as a school bus driver. We will begin with the statutes. Each of these can be printed from the Kentucky General Assenbly website to ensure the most up to date version is utilized.

STATUTES

KRS 156.160 – Promulgation of Administrative Regulations by the Kentucky Board of Education.

This statute provides the Kentucky Board of Education (KBE) the authority to regulate the transportation of students.

KRS 158.110 – Transportation of Pupils.

This statute states, in relevant part, “Boards of education may provide transportation from their general funds or otherwise for any pupil of any grade to the nearest school to the pupil's residence within the district if the pupil does not live within a reasonable walking distance to such nearest school of appropriate grade level.” This means pupil transportation is permissive and not required for a school district. Most school districts provide transportation, however, some do not due to their size and distance from schools. This regulation also allows school districts to have walking zones, but does not regulate the size of the walking zone as each school district is different in terrain and traffic.

KRS 161.185 – Certified or classified staff member to accompany students on school-sponsored or endorsed trips — Exceptions.

This means someone other than the school bus driver shall accompany the students on the school bus during trips. An exception to this would be if the coach was also the bus driver. The person accompanying the students would typically know the students and can help control the students. There should be an adult accompanying the students on each school bus utilized during the trip.

KRS Chapter 189 are laws pertaining specifically to the road. Below are a few of the laws that as a driver, you need to be aware of.

KRS 189.300 – Vehicles to keep to right.

This statute allows passing of other vehicles. Therefore, a driver is not allowed to stop their bus to block the other lanes to load or unload students. The statute states, in relevant part, “The overtaking vehicle shall return to the proper traffic lane as soon as practicable and, if the passing vehicle enters the oncoming traffic lane, before coming within two hundred (200) feet of any approaching vehicle.”

KRS 189.340 – Overtaking vehicles, bicycles, or electric low-speed scooters; traffic lanes; following vehicles; exemption for commercial motor vehicle platoon trailing vehicle.

Periodically you may encounter bicycles while on your routes. This statute states, in relevant part, “Vehicles overtaking a bicycle or electric low-speed scooter proceeding in the same direction shall: . . . If there is only one (1) lane for traffic proceeding in the same direction, pass to the left of the bicycle or electric low-speed scooter at a distance of not less than three (3) feet

between any portion of the vehicle and the bicycle and maintain that distance until safely past the overtaken bicycle or electric low-speed scooter. If space on the roadway is not available to have a minimum distance of three (3) feet between the vehicle and the bicycle or electric low-speed scooter, then the driver of the passing vehicle shall use reasonable caution in passing the bicyclist or electric low-speed scooter operator."

It also states in Subsection (2)(b), "The driver of a motor vehicle may drive to the left of the center of a roadway, including when a no-passing zone is marked in accordance with subsection (6) of this section, to pass a person operating a bicycle or electric low-speed scooter only if the roadway to the left of the center is unobstructed for a sufficient distance to permit the driver to pass the person operating the bicycle or electric low-speed scooter safely and avoid interference with oncoming traffic. This paragraph does not authorize driving on the left side of the center of the roadway when otherwise prohibited under state law." Subsection 6 states, "The commissioner of highways is hereby authorized to determine those portions of any highway where overtaking and passing or driving to the left of the roadway would be especially hazardous and may by appropriate signs or markings on the roadway indicate the beginning and end of such zones, and when such signs or markings are in place and clearly visible to an ordinarily observant person, every driver of a vehicle shall obey the directions thereof, except as provided for in subsection (2)(b) of this section."
Just because you can pass the bicycle by law, does not mean you should. You must take into consideration road and weather conditions. Use extreme caution and remember you are transporting students. Safety is always the number one priority.

KRS 189.345 – Prohibitions against driving on left side of roadway.
This statute should be remembered when utilizing the previous statute. If you cannot see if traffic is coming from the other side, do not pass. The statute states, in relevant part, "No vehicle shall be driven on the left side of the roadway under the following conditions: When approaching or upon the crest of a grade or a curve in the highway where the operator's view is obstructed within such distance as to create a hazard in the event another vehicle might approach from the opposite direction".

KRS 189.370 – Passing Stopped School or Church Bus Prohibited; Application to Properly Marked Vehicles; Rebuttable Presumption as To Identity of Violator.

One of the biggest issues school buses have with traffic, is the illegal passing of school buses. This statute spells out when an illegal pass has occurred. It states, in relevant part, "If any school or church bus used in the transportation of children is stopped upon a highway for the purpose of receiving or discharging passengers, with the stop arm and signal lights activated, the operator of a vehicle approaching from any direction shall bring his vehicle to a stop and shall not proceed until the bus has completed receiving or discharging passengers and has been put into motion. The stop requirement provided for in this section shall not apply to vehicles approaching a stopped bus from the opposite direction upon a highway of four (4) or more lanes." This means if there are 3 lanes, all vehicles in all directions must stop. If there are four or more lanes, only the vehicles following the bus must stop.

KRS 189.375 – School or Church Bus Signaling Device; Use; Stopping Regulation.

This statute explains the requirements for stopping a bus and using the flashing lights and the stop arm. These steps need to be followed each and every time. The statute states, in relevant part, the following: "Prior to stopping the school bus for the purpose of receiving or discharging school children, the driver shall activate the amber flashing signal lamps. Once the bus comes to a complete stop, the driver shall extend the stop arm and activate the red flashing signal lights prior to opening the door so it shall be plainly visible to traffic approaching from both directions that the bus is in the process of receiving or discharging passengers. No driver shall stop a school or church bus for receiving or discharging passengers in a no passing zone which does not afford reasonable visibility to approaching motor vehicles from both directions unless a "School Bus Stop Ahead" sign has been installed a reasonable distance before that spot in the roadway. No driver shall stop a school or church bus for the purpose of receiving passengers from or discharging passengers to the opposite side of the road on a highway of four (4) or more lanes. . . ."

KRS 189.378 – Funeral processions.

Drivers are often unaware of what the requirements are for funeral processions. This statute not only provides guidance as to the right-of-way laws, but also states, "Any person who violates

this section shall be guilty of a Class B misdemeanor". It is important to know when you can or cannot pass vehicles during a funeral procession. "A person who drives a vehicle that is not part of a funeral procession shall not drive the vehicle between the vehicles of the funeral procession or otherwise interfere with the progress of the procession, except when:
(a) The person is authorized to do so by a police or safety officer . . . ."

KRS 189.450 - Stopping, standing, parking, or repairing vehicle on roadway or shoulders of highway.

Section 5 of this statute dictates where a vehicle may not stop, to include, but not limited to, within an intersection or on a crosswalk, at any place where official signs prohibit stopping or parking, within thirty (30) feet upon the approach to any flashing beacon, stop sign, or traffic control signal located at the side of a roadway and within fifteen (15) feet of a fire hydrant.

KRS 189.540 – Regulation for School Buses; Operator Required to Have Commercial Driver's License with School Bus Endorsement.

This statute states school bus drivers are to follow the state guidelines for having received a CDL.

KRS 189.550 – Vehicles Used for Transporting Children to Stop At Railroad Crossings.

School buses "shall stop their vehicles before crossing any railroad when tracks are at the same level of the roadway. The stop shall be made not less than fifteen (15) feet nor more than fifty (50) feet from the nearest track over which the highway crosses, except where the crossing is protected by gates or a flagman employed by the railroad. After making the stop, the operator shall open the service door and carefully look in each direction and listen for approaching trains or other on-track equipment before proceeding. If visibility is impaired at the required distance for stopping under this section, the operator may allow the vehicle to slowly roll forward for the purpose of gaining the visibility necessary to safely cross the railroad tracks."

REGULATIONS

This next area discusses the regulations pertaining directly to school bus drivers.

702 KAR 5:010 – Pupil Transportation: Technical Assistance and Monitoring.

It is imperative all drivers receive the proper training and the training files are complete and in compliance. This regulation states, in relevant part, "The Department of Education may make inspections of bus driver training records. If a school bus driver training record is found to be out of compliance, the department may decertify a driver whose training records are out of compliance until proper corrections are made."

702 KAR 5:030 – Pupil Transportation.

Kentucky school bus drivers are to receive initial and annual training. This regulation outlines that the annual training shall be at least eight (8) hours.

702 KAR 5:080 – Bus Drivers' Qualifications, Responsibilities, and Training.

This regulation is the longest regulation for pupil transportation and most pertinent to school bus drivers. It outlines the background and motor vehicle checks, drug and alcohol testing, physical requirements, training requirements and many other requirements that drivers must follow.

702 KAR 5:150- Transportation of Pre-School Children.

This statute pertains to three and four year old's. It states, "each school bus transporting three (3) and four (4) year old children [are] to be staffed with a minimum of one (1) driver assistant who is qualified and trained to assist in the transportation of three (3) and four (4) year old children."

FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION (FMCSA)

In addition to state laws and regulations, there are also federal laws a commercial driver must follow. One of those laws is the Mobile Phone Restriction. The FMCSA restricts the use of all hand-held mobile devices by drivers of commercial motor vehicles (CMVs). This rulemaking restricts a CMV driver from holding a mobile device to make a call, or dialing by pressing more than a single button.

Fines and Penalties – Using a hand-held mobile phone while driving a CMV can result in driver disqualification. Penalties can be up to $2,750 for drivers and up to $11,000 for

employers who allow or require drivers to use a hand-held communications device while driving.

Disqualification - Multiple violations of the prohibition of using a hand-held mobile phone while driving a CMV can result in a driver's disqualification by the FMCSA. Multiple violations of state laws prohibiting the use of a mobile phone while driving a CMV is a serious traffic violation that could result in a disqualification by a state for drivers required to have a Commercial Driver's License.

EMPLOYEE DRUG AND ALCOHOL AWARENESS TRAINING

Each board employee who possesses a commercial driver's license must receive a minimum of one (1) hour of training in drug and alcohol awareness. Following is the outline for this training, along with a drug handout from the FMCSA website.

CFR 49 Part 382 is the FMCSA regulation which pertains to CDL drivers and controlled substances and alcohol testing. School districts may have stricter guidelines than what is required by federal law.

The purpose of employee training is to ensure you understand the following:

a. the performance impacts of drug and alcohol abuse;
b. the expected standards of employee conduct and the penalties for violation of the policy;
c. how substance abuse can affect the workplace in terms of economic loss, vehicle safety and incidents, workplace attitudes and morals, productivity, and equipment reliability;
d. how the physiological and psychological effects of drugs endanger health and the work environment, with particular emphasis on alcohol, marijuana, methamphetamines and cocaine;
e. knowing what Employee Assistance Program (EAP) services are available;
f. the general procedures for specimen collection for drug testing;

g. knowing that impaired job performance may lead to a request for a urine specimen for reasonable suspicion testing;
h. knowing where to go for assessment and referral for drug or alcohol abuse for themselves, co- workers, or family members;
i. understanding the principal of confidentiality and how it applies to the drug and alcohol policy;
j. an appreciation of their role in creating a workforce value system which actively supports the concept of a drug-free workplace;

CHAPTER 2

DRIVING FUNDAMENTALS

OBJECTIVES

To give students an overview of their responsibilities while driving a school bus.

- Starting and stopping the bus.
- Parking the bus.
- Type D Bus differences.
- Defensive driving.
- Distracted driving.
- Night time driving.
- Traffic control devices and signs.

PERFORMANCE STANDARDS:

Drivers will demonstrate their ability to apply all the knowledge and skills gained during the instructional phase of this unit by successfully completing a minimum proficiency of 80% or more on the written exam.

INTRODUCTION

School bus drivers have been entrusted with a most precious cargo – our children. A great responsibility is assumed by an individual who becomes a school bus driver. The purpose of this unit is to give the school bus driver the knowledge and skills necessary to safely transport our most precious cargo. When applied, each area helps create a good defensive driver.

GETTING READY TO DRIVE

There are several tasks which a driver must complete in order to get ready to drive a school bus. To many of you, these might seem very simple. After all, doesn't everybody know how to start a motor vehicle? There is more than starting the vehicle to get ready to drive. We will discuss all the little things which must be considered in order to properly drive a school bus. If you take care of the little things, the big things will take care of themselves.

The Driver

Driver Wellness

A driver needs to be in good mental and physical health before getting behind the wheel of a school bus. Ensuring they are in top performing condition will allow a driver to be more alert and capable of assisting students in an emergency. Three areas that can affect mental and physical health are nutrition, exercise, and sleep.

Nutrition

As a driver, spending time on the road can make it difficult to make healthy choices when it is time to eat, and proper nutrition can be a struggle. Poor nutrition can cause additional health issues, such as stress, which can affect your performance. Pre-planning, watching your portion sizes, and swapping soda for water, can make a major difference in your health. In today's world of convenience, it is easier than ever to make healthier choices. While in between routes, it is easy to go to the vending machine or stop at a fast food restaurant, but consider carrying a lunch with pre-washed and pre-cut fruits and vegetables, bagged lettuce and spinach, protein bars and drinks, almonds, and granola bars. These are great sources of nutrition and energy. Fast food is often full of calories and carbohydrates which can cause you to feel sluggish and tired.

Exercise

Exercise is another way to eliminate stress by helping you maintain your mental and physical health. As a school bus driver, you may be able to exercise before or after a route, but sitting for long periods of time can still cause issues. Getting out of the driver's seat and taking a short walk can help revitalize and refresh your body.

Exercise prevents sugar from accumulating in the blood by triggering muscles to take more glucose from the bloodstream to use for energy. Other benefits of exercise include reducing risk of developing diabetes; better sleep; lower blood pressure; weight control; strengthening of bones and lungs, and assisting in the prevention of diseases.

Fatigue

According to the AAA Foundation for Traffic Safety, the percentage of crashes involving drowsiness is nearly eight times higher than federal estimates indicate. Not getting enough sleep not only puts you at risk, but everyone on the road and every student on your school bus. The definition of fatigue is extreme tiredness resulting from mental or physical exertion or illness. The Centers for Disease Control and Prevention says that 35 percent of U.S. drivers sleep less than the recommended minimum of seven hours daily. Getting 6 hours of sleep or less, puts you in the deprived category and quadruples the risk of having an accident.

Drowsy driving is one of the leading causes of accidents and is the equivalent to drunk driving. Drivers who fall asleep behind the wheel, cannot take any evasive action to engage the brakes. Sleep loss accumulates into sleep debt. You must sleep longer and deeper over several days to make up for the lack of sleep.

Warning signs of drowsy driving include yawning or blinking frequently, irritability, impatience, difficulty in remembering how far you have traveled or what you have recently passed, missing bus stops, hitting rumble strips, drifting from your lane, and nodding off.

Factors that lead to fatigue include sleep deprivation, poor nutrition, constant stress, medications, and general health. Fatigue causes increased reaction time, often leading to the impairment of

attention and mental processes for making crucial decisions regarding speed and distance calculations, greatly increasing the risk of a crash.

Avoid medicines that make you drowsy. When seeing a doctor, always inform them you are a school bus driver so they can prescribe a medication that will not make you drowsy. If your illness requires you to take a prescription that may cause drowsiness, have the doctor remove you from work until you no longer need the medication.
In addition to health and wellness, being knowledgeable of, and understanding the state highway laws, local rules and regulations is important, as it sets you up for success and allows you to be a safer driver. To help keep you and your passengers safe, it is important to know general maintenance procedures of the bus, incident and emergency procedures, defensive driving, and basic first aid. You must also be able to correctly and safely perform all driving maneuvers and operate all equipment (including emergency equipment). In this chapter we will discuss the driving fundamentals and you will soon be able to put them all into practice.

Lastly, and just as important, is your attitude. Often overlooked, attitude has the greatest influence on a person's driving performance. While not usually difficult to correct, it is probably the most difficult condition to recognize. The defensive driver must constantly check to make sure he/she is alert; thinking positively; concentrating on the job at hand; and is in control of his/her emotions.

How many times, while driving your car, have you day dreamed or thought about previous or future conversations? Have you had an argument BEFORE you start driving and gotten into the car angry? These types of situations must be put out of your mind when driving because you become a dangerous driver by not having your full attention on the road. As a professional school bus driver, you now have a greater responsibility to not only yourself, but the students you will have as passengers. You must be in proper control of the bus.

Knowing yourself is one of the most important factors in developing good eating, exercising and sleeping habits. You are unique, and what works for you might not work for another. Be the best and safest driver that you can be behind the wheel. Make good choices and remember that when

taking great care of yourself, you also are taking great care of everyone that shares the road with you.

THE BUS

When driving a school bus, drivers will be handling a vehicle that is much larger than the vehicle they are accustomed to driving.

The major differences between a car and a school bus are:

- A bus is longer and heavier.
- A bus is higher and wider, requiring more clearance than that of a car.
- A bus has slower acceleration.
- A bus requires longer stopping distance.
- Bus drivers must rely more on mirrors for adequate rear, side and, in some instances, front views.
- Buses have a pivot point when turning which causes the rear of the bus to swing wide out of its lane into the next lane.

There are some advantages associated with driving an oversized vehicle such as a school bus. The height gives a better view of traffic ahead and a better chance to avoid incidents. Other drivers can see you better and the height offers protection in case of an incident.

The disadvantages are that the vehicle is more susceptible to tipping and has a greater chance of hitting an overhead obstruction. We can compensate for that additional height by being alert, adjusting speed, changing lane position and using added caution. We must watch for traffic

conditions twelve (12) to fifteen (15) seconds ahead of time.

The weight of a full-sized, empty bus is approximately 20,000-26,000 pounds, and can weigh up to 43,000 pounds when fully loaded with passengers. This weight effects our ability to stop and we should be careful to avoid panic stops. To avoid panic stops, we must plan, slow down sooner and drive defensively.

The width of a bus is 96" – two (2) feet wider than a standard car and occupying 1/3 more lane space than a standard-sized vehicle. To compensate for added width, we must plan and adjust speed accordingly.

We must be fully aware of all the characteristics of each bus we drive, because even though all buses are similar, they have individual characteristics for which we must compensate. A school bus driver's prime responsibility is to deliver our most precious cargo safely to their destinations. Knowing how the bus handles and knowing its characteristics, will enable us to accomplish this task.

We will first go over the basics of the school bus and then the differences between a Type C bus and a Type D bus.

CONTROLS OF THE SCHOOL BUS

From the driver's seat, you will be able to see and monitor various aspects of the school bus operation. The controls are in the driver's area of the school bus and are standard for school buses in Kentucky. These must be monitored and understood for safe, efficient and economical operation. It is very important that you fully understand the function of the controls and how to read each of them.

Located on the instrument panel, in front of the driver, are lights and gauges that indicate the status of various vehicle functions. To the driver's left, are switches which control the lights and fans. The service door control is located to the right or left of the driver. The parking brake and transmission shift levers are located to the right of the driver.

At a minimum, Kentucky school buses will have these instruments in the chassis instrument panel:

- speedometer, showing miles per hour;
- odometer, showing accrued miles;
- oil pressure gauges;
- water temperature gauges;
- volt meter, showing alternator voltage output;
- low air gauge/buzzer and light;
- fuel gauge;
- high beam headlamp indicator;
- turn signal indicator lights;
- anti-lock brake system (ABS) light;

Drivers must be aware of the instruments and what the reading on each of them means.

OIL PRESSURE LIGHT OR GAUGE

The oil pressure light/gauge indicates if there is enough pressure to circulate oil in the engine. If there is insufficient pressure, the warning light will flash red. The gauge will register the oil pressure in pounds per square inch.

WATER TEMPERATURE LIGHT OR GAUGE

The temperature light/gauge indicates proper temperature of water circulating in engine. Water is too hot if the indicator light is showing red or the gauge registers 220 or above.

VOLTMETER (ALTERNATOR LIGHT)

The voltmeter (alternator light) indicates if there is enough energy to start the engine and run the electrical system. If there is not enough energy, the alternator light will show red or the gauge will register on discharge side with less than 12 volts. On some buses, the voltmeter will be digital.

When you turn the key, the voltmeter will show the amount of charge in the battery. Once the

bus is started, the voltmeter will show how many volts the alternator is putting out. In both cases, the voltmeter should read 12-14 volts.

LOW AIR BUZZER OR GAUGE

The air pressure gauge indicates the amount of air pressure available. The low air pressure buzzer will sound if the pressure drops below 60 pounds per square inch. A red light will also turn on indicating low air pressure or loss of hydraulic brake booster power.

FUEL GAUGE

The fuel gauge indicates the amount of fuel in the tank. A red light indicates there is low fuel. Fuel gauge must show adequate supply of fuel to complete trip.

MIRRORS

The school bus is equipped with mirrors to assist the driver in seeing the areas around the bus. One of the characteristics of school bus construction is that it produces blind spots and danger zones. Many of the serious incidents involving school buses occur in these danger zones. Mirrors have been added to the school bus to assist the driver in seeing these areas. A driver must understand how to properly use the mirrors in order to safely operate the school bus.

The first and foremost action a driver must take when using the mirrors is to ensure they are properly adjusted so that all areas can be monitored, and the mirrors can be easily seen from the driver's seat. Mirrors should be positioned and adjusted so that the driver can monitor all areas without moving his/her head. When properly adjusted, a driver will be able to monitor the mirrors by only shifting their eyes. Mirrors must be checked as part of the visual scanning process that the driver follows in reading the road.

There are currently seven (7) mirrors on all buses. Mirrors will be different on each bus, depending upon the year of manufacture. There may be a West Coast mirror and two (2) convex mirrors on each side, or there may be a set of Euro-Style mirrors with two (2) convex mirrors on each side which could bring the total of mirrors to nine (9), counting the inside rear view mirror.

A school bus is equipped with the following mirrors:

- Interior rear-view mirror (student mirror)
    - mounted above the windshield
- West coast mirrors
    - mounted on the left so that the driver has an unobstructed view of it through the driver's window
    - mounted on the right so that the driver has a good view of the mirror through the right side of the windshield.

  Or
- Euro-Style Mirror
    - Four (4) convex mirrors and they may be round, square or rectangular.
        - One (1) crossover mirror mounted on each front fender.
        - One (1) positioned on each side to give a view down the left and right sides of the bus, called fender mirrors.

DIFFERENCES OF TYPE D VS. TYPE C (CONVENTIONAL BUSES)

There are many differences between Type D and conventional buses. There are two Type D buses, forward control and rear engine. One of the major differences is visibility in relation to mirrors, side windows, windshields and maneuverability. In operating a Type D vehicle, the driver will notice almost immediately that visibility is greater due to the width of the windshield.

MIRRORS

The driver of a Type D bus does not have as clear a view of the windows down the left side. The mirrors can be difficult to adjust in order to achieve full view. The driver will need assistance in the adjustment due to the height of the mirrors.

FORWARD CONTROL TURNING RADIUS

The forward control bus has a shorter wheelbase than the conventional bus so turns can be made easier in close areas. The wheelbase and rear wheels must be considered while making turns and while rounding curves. The forward control bus is generally easier to maneuver in tight places. Making left and right turns can be achieved with less room available, which decreases incident

potential.

BACKING

In backing the Type D bus, the turning radius is smaller, and care must be taken when backing and turning the wheel. You must remember that you have an overhang in front of the axle and in the rear. Be aware that the right or left corner will strike any object near the bus, if the driver turns the wheel in excess of what is required.

DRIVER'S SEAT

When entering a forward control bus, it is apparent that the driver's seating arrangement is much different than in a conventional bus. The housing for the forward engine (dog house) is an obstacle. In the older forward engine buses, the dog house is not to be climbed upon for any reason. The driver must get into the driver's seat by careful maneuvering. The newer forward engine buses have a plate on the dog house that will allow the driver to step on or walk over.

DISTANCE FROM STUDENTS

The driver is in an isolated area on Type D buses, which creates potential problems. Student behavior is more difficult to manage because of the design of the space and the sound of the motor is loud. The driver cannot always hear the students and the students cannot always hear the driver giving instructions. The driver is restricted by space which could cause problems if he/she needs to leave his/her area quickly. The time it would take to get to a student takes longer, so the driver has to be alert to potential safety problems.

FOOT POSITIONS

Older Type D forward engine driver seats have little or no lateral movement. Forward and reverse movement of the driver's seat is adequate. To obtain the best possible foot position, all drivers should adhere to the following:

- Adjust the driver's seat to the best possible body configuration.
- Adjust the seat so that the right foot can reach the foot pedals for safe operation of the vehicle.
- When moving the right foot from the accelerator to the brake, lift the right foot

completely off the accelerator pedal and place on the brake pedal. Do not mistake the accelerator for the brake pedal.

- When depressing the brake pedal, it is recommended that only light steady pressure be applied, using the forward portion of the right foot (ball) to apply the brake.

AIR OPERATED DOOR

Type D buses are equipped with an air operated door, activated by an electrical switch located on the control panel. All air operated doors are not equipped with a delay switch. Even though this door is easier to operate, the driver must constantly be aware of passenger movement to guard against student injury.

TURNING

When turning a Type D bus, you should pull further into the intersection before turning. As with turning any vehicle, you must have your speed reduced, be in the proper lane for turning and constantly monitoring the mirrors and traffic environment.

STOPPING DISTANCE

Tests have shown no significant differences in stopping distances comparing a Type D vehicle to a conventional. In a Type D bus, the driver feels the stopping distance is longer due to the increased distance of the driver from the rear of the vehicle. Note that Type D vehicles seem to slide more than the conventional when making a panic stop.

NOTE: The main concern regarding the differences between conventional and Type D buses, is the change from driving one type of vehicle to the other. When a driver makes such a change, they must continually be aware of the differences as they adapt.

MIRROR ADJUSTMENT

As part of the pre-trip inspection, drivers must be sure to check their mirror adjustment. Mirrors are vital to the safe operation of the school bus. They must be used to safely turn, back-up, or move the bus in traffic. A driver cannot be an effective professional school bus driver without using the mirrors properly. A school bus driver should constantly be performing a visual scan, checking all mirrors at least every five (5) seconds. No movement of the bus should be made until all mirrors have been checked to ensure no child or any object is close to the bus.

Use of mirrors is called for throughout this course. Be sure that you adjust and use them properly. You will have an opportunity to work with adjusting the mirrors later in this course.

VISUAL SCAN

The eyes should be focused on the road ahead as well as all around the bus. The correct way to accomplish this is to:

- Keep the eyes constantly on the move to obtain the "big picture."
- Look straight ahead. Use the left side, right side and rear-view mirrors.

STEERING

A school bus driver must be able to assume the correct steering position and make all turning maneuvers correctly and smoothly. It is vital that each school bus driver learn and perform the correct procedures necessary to prepare for making and turns. When an unusual turn or turnaround is required, the driver should use extreme caution. Added skills and judgment in making turns properly and safely are required as a result of the traffic conditions in which the school bus travels each day.

In steering the school bus, it is very important for the driver to use both hands. The correct steering position is:

1. Grip the steering wheel with both hands.
2. Hold the left hand at approximately the 9 or 10 o'clock position.
3. The right hand should be at approximately the 2 or 3 o'clock position.
4. Each hand should be located directly across from each other. Hence, 9 and 3 o'clock or 10 and 2 o'clock.
5. Hands should be on the outside of the steering wheel and your thumbs on top or outside of the wheel.

DANGER ZONES

Most injuries that involve school buses occur outside of the school bus. Drivers must exercise extreme care to ensure they do not injure or kill a child with the school bus. There are very hazardous areas around the bus – areas in which drivers have great difficulty seeing all that goes on around the bus. This is a ten foot area immediately surrounding the stopped school bus. These areas are referred to as "danger zones" or "death zones". Drivers must have their mirrors adjusted so they can see into these areas as it is virtually impossible to see small children while in these areas/zones.

It cannot be emphasized enough that no movement of the bus is to be made until the driver has checked each area for clearance.

We have looked at the components of the bus and discussed important factors to remember. Now let's talk about bus movement.

STARTING A SCHOOL BUS ENGINE

It is necessary to properly start a school bus engine in order to safely operate the bus. Starting the engine must become a matter of routine, incorporating principles of safety and preventative practices.

The correct sequence for starting a school bus engine is:

1. Ensure the brake is set to keep the bus from moving.
2. Apply the service brake.
3. Ensure the gear lever is in the neutral or park position.
4. Turn on the ignition key to complete electric circuits and engage the starter switch.
5. Warm up the engine at fast idle. **Do not race the engine**.
6. Review the gauges.
7. Check instruments to see they are registering properly.
    a. Voltmeter shows 12 volts plus.
    b. Oil pressure gauge registers at the middle of the gauge.
    c. Temperature gauge is at the midpoint.
    d. Fuel gauge registers full, or enough to complete the run.
    e. Air pressure gauge indicates pressure is building.

On some occasions, especially during cold weather, the engine might be difficult to start, and the air pressure will not build as a result of ice in the airlines. Drivers can correct these problems by taking appropriate actions.

BUILDING AIR PRESSURE

In cold weather, the driver should:

1. Start the engine.
2. Release the parking brake.
3. Depress the service brake pedal and hold it.
4. Run the engine at fast idle with the transmission in neutral.
5. When pressure reaches 120, you are to pump the brake several times.
6. Let the pressure build up again without the brake pedal being depressed.

7. If the air pressure does not come up to its required level, repeat process.

SHUTTING DOWN A DIESEL ENGINE:

1. Bring the bus to a full stop.
2. Set the parking brake.
3. Place the transmission in neutral.
4. Allow the engine to idle for at least one (1) minutes, by the clock.
5. After one (1) minute turn off the engine.
6. Remove the key from the ignition.

GEAR SHIFTING

Gear shifting requires skill and practice. A driver must learn the range of speed in changing gears upward or downward, then shift without losing view of the road. School buses are equipped with a four or five speed transmission or an automatic transmission. The synchromesh transmissions have alleviated most of the gear clashing and have made shifting easier for drivers.

The proper methods to use in operating a bus with an automatic transmission are:

1. Depress the foot brake and move the selector lever into the forward or reverse position.
2. Release the parking brake, release the foot brake and depress the accelerator. As the speed of the bus increases, the transmission will automatically shift to the next higher gear, until reaching the cruising gear.
3. Downshift for additional power by depressing the accelerator toward the floor firmly. A driver can downshift manually by moving the selector lever to the next lower position.

FOLLOWING DISTANCE/SPACE CUSHION

A good defensive driver allows for adequate space between themself and other vehicles. A school bus requires more stopping distance than a car, therefore, understanding the distance and speed of the bus is important.

To determine the safe following distance, the driver must allow one (1) second of following distance for each ten feet (10') of vehicle length up to forty (40) mph. The driver should add one (1) second if traveling over forty (40) miles per hour. In Kentucky, all bus drivers should assume their vehicle is at least forty feet (40') long, hence, no Kentucky school bus driver should ever be closer than four (4) seconds. To apply the four (4) second rule, a driver picks a point ahead (for example: overhead bridge, post, sign, etc.). As the vehicle passes the selected point, start counting "one thousand and one, one thousand and two, etc." if you don't complete "one thousand and four" by the time the front of the bus passes the selected point, you are following too close.

Look ahead twelve (12) to fifteen (15) seconds. By scanning the road that far ahead, trouble can be seen well in advance and can often be avoided.

Definite times to adjust following distance are when:

- increasing speed
- driving on wet or icy road
- driving at night
- during adverse weather conditions
- fatigued
- following emergency vehicles
- following dual-wheeled vehicles, which may cause damage to the bus by debris thrown from between the wheels
- following two-wheeled vehicles that can stop within shorter distances
- below the 4 second rule if driving 40 mph or slower
- below the five (5) second rule if driving over 40 mph

Stay alert. Watch for signs from the driver ahead as to what he intends to do. Is their turn signal on? Are their brake lights lit? Have they been gradually drifting to the right or left as if to prepare to turn?

Stay ahead of the situation. Look beyond the driver ahead to see situations that may force them to act quickly and thereby become a threat to you. Slow down and touch your brakes the instant you see a hazard developing that may require you to stop or take evasive action. Failure to do this is known as "delayed braking," and creates panic stops. A competent, professional school bus driver will rarely, if ever, have to make a panic stop. The best advice that a driver can adhere to is to stay away from other vehicles. Do not travel next to or close to any other vehicle(s), person(s) or obstacle(s) at any time unless it is necessary. Stay back. Use and apply the four (4) second minimum rule.

PROPER LANE USAGE

Lane usage and the position of the bus on the road are vital to the safe and efficient completion of each bus run. Drivers should not straddle lane marker lines or obstruct more than one lane. In urban areas, drivers should use the parking lane for stopping and parking.

Where there is more than one lane for traffic going in one direction, travel in the furthermost right lane (not including parking lane), unless parking or turning left. Drive at a safe distance from other vehicles. Use the four (4) second minimum rule for following vehicles. Remain at least fifty feet (50' – 1 ¼ bus lengths) behind a bus leaving school grounds.
When changing lanes, look for rear approaching traffic in the new lane. Glance out the window to check any blind spots. Move your head enough to see around the blind spot by using the mirrors. On multi-lane roads, look for vehicles about to enter the new lane from the adjacent lane. Check fender and west coast mirrors to observe vehicles passing, vehicles closing in fast from the rear, and vehicles about to enter the new lane. Position the bus so that you safely and smoothly accomplish the required maneuver.

BASIC ROAD RULES

A thorough knowledge of highway signs, signals, markings and legal rights on the road, are necessary to be a safe school bus driver. We will now look at basic road rules that you will need to remember for everyday driving.

BICYCLIST

Do not honk your horn as it may scare the cyclist and cause additional road hazards. As discussed in Chapter 1, if there is only one (1) lane for traffic proceeding in the same direction, pass to the left of the bicycle at a distance of not less than three (3) feet between any portion of the vehicle and the bicycle, and maintain that distance until safely past the overtaken bicycle. If space on the roadway is not available to have a minimum distance of three (3) feet between the vehicle and the bicycle, then the driver of the passing vehicle shall use reasonable caution in passing the bicyclist.

ANIMALS

Slow down when entering animal crossing zones or when noting animals on, or along roadway. If an animal enters a roadway, prepare to stop or maneuver if traffic permits. Hit the animal if stopping or maneuvering would jeopardize your own safety or that of passengers, other motorists, or pedestrians.

SPEED OF TRAVEL

The school bus shall not be operated at a speed in excess of the posted speed. The driver shall drive the school bus in a manner that is appropriate for the conditions of the roadway, weather conditions, or other circumstances. The bus should not be driven at speeds that would make it unsafe for the bus or the passengers.

A driver should check their speed every five seconds and keep your eyes moving. Adjust your speed to that of the other traffic by accelerating, decelerating, braking and/or downshifting, but be mindful not to go over the posted speed limit.

Basic speed law:

1. The driver should drive at a careful and prudent speed that considers all driving conditions. Drive at no greater speed than will permit stopping the vehicle within the assured clear distance ahead.
2. The following are the absolute speed laws: unless posted otherwise
    a. 70 MPH – maximum for Kentucky Interstate travel
    b. 45 MPH – minimum on freeways

c. 45 MPH – highway construction, road work or surveying
d. 25 MPH – business, residential and park areas, unless posted otherwise
e. 25 MPH – school zones

RIGHT TURN ON RED

A right turn on red is not allowed in a Kentucky school bus. The benefits of making a right on red turn are far outweighed by the additional chances that a driver must take. The chances of a school bus being hit by a vehicle while turning is very high. Having a controlled green light is the best and safest way to make this turn.

INTERSECTIONS

1. Look both ways. (Just like crossing the street when walking.)
    a. Look to the left first since traffic coming from the left is closer.
    b. Look to the right.
    c. Take one more look to the left before you pull out, just in case there is something you did not see the first time.
2. Do not rely on traffic signals.
    a. Look left and right, even if other traffic has a red light or a stop sign. Someone may disobey either one.
3. Make sure you have a good view.
    a. If the view of a cross street is blocked by a building or a row of parked vehicles, edge forward slowly until visibility is clear in both directions.
    b. If traffic in one lane is blocking the view of another lane, wait until it clears. If a driver tries to look by putting the front of the bus into the other lane, they may get hit.

Crosswalks are set aside for people to cross the street. Usually they are marked with yellow or white lines and have warning signs. Most crosswalks are located at intersections. Some are in the middle of the block, especially in cities and town. While turning a corner, watch for pedestrians who are about to cross the street you are turning onto. Remember, if a driver has a green light, the pedestrian has a green light also. The law requires drivers to yield to pedestrians in the crosswalk.

RIGHT OF WAY

The right-of-way rules contribute to the safe passage of the vehicles through an intersection provided each driver obeys the rules. Below are other right of way situations and rules.

YIELD RIGHT-OF-WAY TO PEDESTRIANS:

A. at stop signs;
B. at traffic signals;
C. at crosswalks;
D. when turning;
E. when entering a street from a driveway or alley; and/or
F. when meeting blind pedestrians

1. Right-of-way rules for an intersection not controlled by signs or signal devices.
    a. Generally, drivers on single lane or two (2) lane roadways must yield the right-of-way to vehicles on divided roadways or roadways of three (3) or more lanes.
    b. Usually, drivers on unpaved roadways must yield the right-of-way to vehicles on paved roadways.
    c. Drivers on roadways consisting of the same number or lanes and similar surfacing must yield the right-of-way to vehicles approaching from the right which are close enough to contribute to a hazard.
    d. Drivers who are required to yield the right- of-way may enter the intersection only if the movement can be made without interference or collision with traffic using the intersection.
2. Right-of-way at an intersection with a stop sign or yield sign.
    a. Drivers approaching intersections controlled by stop or yield right-of-way signs must obey such signs.
    b. After coming to a complete stop, give the right-of-way to pedestrians crossing the street.
    c. Drivers may enter the intersection if the movement can be made without interference or collision with traffic using the intersection.

3. Right-of-way at an intersection with a signal light.
    a. After a light turns green, yield to pedestrians still crossing the street. Yield to pedestrians walking with a green light or a "walk" signal.
    b. A driver entering the intersection on a green light has the right-of-way.
    c. A driver approaching the intersection on a red light must stop.
    d. A Kentucky school bus shall not turn right on red. REMEMBER: SAFETY FIRST … SCHEDULE SECOND!!!
    e. When a flashing red light is operating, a driver approaching the red light must stop before entering the intersection.
    f. Where there is a steady green arrow, yield to conflicting cars and pedestrians.
4. Procedure and right-of-way after stop are the same as at a stop sign.
    a. A flashing yellow light is a caution signal to warn drivers of a traffic hazard and requires a speed slow enough to avoid a collision.
5. Right-of-way when entering a roadway.
6. A vehicle entering a crossing or roadway from an alley, building, private road or driveway, must yield to pedestrians in your path and vehicles on the roadway.
    a. A vehicle merging from an alley, driveway (including a school driveway), or building in a business or residential area, must stop before driving onto the crosswalk or past the sidewalk and must yield to any pedestrians and vehicles on the roadway.
    b. A vehicle entering a roadway or traffic lane from an angle or parallel parked position, or from the roadway shoulder, must yield to all vehicles close enough to contribute to an immediate hazard.
7. Right-of-way on left turns.
    a. A vehicle turning left at an intersection, must yield to those vehicles approaching from the opposite direction that are close enough to contribute to an immediate hazard.
    b. A vehicle turning left within an intersection or into an alley, private road, or driveway, must yield to pedestrians and any vehicle approaching from opposite direction which is within the intersection, or close enough to be an immediate hazard.
    c. Right-of-way on the approach of an emergency vehicle.
    d. The approach of an emergency vehicle using a siren and/or red light, requires other

vehicles to move to the right, clear of any intersections, and stop until the emergency vehicle has passed. When conditions make it impossible to move to the right, the vehicle should stop and remain stopped until the emergency vehicle has passed. Under no circumstances should a driver ever pull to the left. Emergency vehicle drivers are taught to pass on the left.

STOPPING THE SCHOOL BUS

Always stop the school bus in a smooth and safe manner. The driver must always have the bus under control and know the distance required to make a smooth, safe stop, increases as the speed and weight of the bus increases.

The normal reaction time for most drivers is ¾ of a second. This might not seem like very much time, but even in ¾ of a second, the bus can cover a considerable distance depending upon the speed of the bus.

How far does a bus travel in the ¾ of a second that it takes a driver to remove his/her foot from the accelerator and apply the brake?

- Take the first digit of the speedometer reading and add it to the total speed. This will give the reaction distance in feet.

EXAMPLE:

36 mph + 3 = 39 feet in ¾ second (a bus is 40 feet)

45 mph + 4 = 49 feet in ¾ second

Now that the driver has the brakes on, the bus will still travel quite a distance before it can be brought to a stop. This is called “braking distance.” Braking distance varies with speed. It increases at a geometric rate as speed increases.

To stop a bus, the driver must allow for reaction time and braking distance. A driver can allow for this by maintaining a safe following distance between the bus and the vehicle ahead.

Drivers should always operate their bus within posted speed limits and with consideration for road and weather conditions. Be sure to drive at a speed that will permit stopping within the clear distance ahead.

Correct stopping procedures keep down wear and tear on the tires and brake system as well as maintenance costs. To stop correctly, a school bus driver must follow these procedures:

Stopping

1. Release the accelerator and depress the brake pedal.
2. Apply brakes gradually by increasing the pressure.
3. Reduce brake pressure slightly, but not completely just before coming to a stop to prevent jerking.

There will be occasions when it will become necessary for the bus driver to stop the bus on a hill or incline. When this situation occurs, allow an extra safety margin between the bus and the vehicle ahead.

PARKING THE SCHOOL BUS

At no time is it recommended to back a school bus out into traffic flow. This is extremely dangerous, and all options need to be explored to prevent backing the bus, this includes how the bus is parked. Drivers must be able to park so that it will not become a traffic hazard.

During your career as a professional school bus driver, you will be required at one time or another to park the bus at an angle, perpendicular, parallel and/or on a hill.

PARKING IS PROHIBITED:

- on a sidewalk;
- in front of any driveway, alley, theater, emergency exit, or fire escape;
- within intersections;
- within fifteen feet (15') of fire hydrants;
- on crosswalks;
- within twenty feet (20') of crosswalks, or if none, within fifteen feet (15') of intersection of property lines at intersection of highways;
- between safety zones and adjacent curbs;
- within thirty feet (30') of points on curb immediately at opposite ends of the safety zone, unless a different length is indicated by official signs;
- within fifty feet (50') of the nearest rail or railroad crossing;
- within twenty feet (20') of driveway entrance to any fire station, and on the side of a street opposite entrance to any fire station within seventy-five feet (75') of said entrance when proper signs are posted;
- along the side, or opposite a street evacuation or obstruction, when stopping, standing or parking would obstruct traffic;
- on highway side of a vehicle stopped or parked at the edge or curb or a street;
- upon a bridge or other elevated structure upon a highway or within a highway tunnel;
- at a place where official signs prohibit stopping;
- within five hundred feet (500') of an incident at which police officers are in attendance, when the scene of the incident lies outside of a city or village; and/or
- more than twelve inches (12") from a curb on the main traveled part of the highway when it is possible to park off the main traveled part of the highway outside of the city.

NIGHT DRIVING

Night driving poses a greater safety risk since drivers are unable to recognize hazards as quickly as they would during daylight hours. Being aware of how driver, roadway, and vehicle factors can affect you while driving at night, will help make you a better driver.

Driver Factors

A key element to safe driving is proper vision. School bus drivers should have their vision checked regularly and follow-up with a specialist if warranted. If you are prescribed corrective lenses, always wear them while operating the bus. It is important that you carry an extra set of corrective lenses with you in the event your normal pair is broken or otherwise inoperable. If you wear contact lenses, you should carry a spare set of glasses. Tinted lenses should not be worn at night, as they reduce the amount of light you need to recognize objects and road hazards quickly.

At times, drivers can be blinded momentarily by the glare of a bright light since it takes your eyes a few moments to adjust. Do not look directly at the lights of oncoming vehicles. Instead, look slightly to the right at the right lane or edge markings. If drivers approaching you do not put their low beams on, do not put your high beams on, as this could blind them momentarily and increase the likelihood of you being in an accident.

Make sure you get plenty of sleep the night before. It is not uncommon for drivers to become drowsy or fatigued at night. If you find yourself getting sleepy, pull over. Call for assistance if you have students onboard.

In an effort to help you be alert while driving, avoid heavy meals. Overeating or eating certain types of food can make you drowsy.

While you cannot control the outside environment, you have control over the inside environment. Keep cool by using whatever ventilation is at your disposal – opening the window or using the air conditioner (if equipped). On cooler days, use the heaters. Make sure the driver's area does not become too warm as this can contribute to you becoming drowsy.

Roadway Factors

Poor lighting on roadways can make driving at night a challenge. Be especially aware of joggers, cyclists, and animals. Drive slower when lighting is poor. Adjust your speed so that

you can safely stop the bus within your sight of distance. Use your high beams when it is safe and legal to do so (when you are more than 500 feet from an approaching vehicle).

Drivers under the influence of drugs and/or alcohol pose a safety risk to all motorists. While it is most common to encounter these types of drivers during the late night and early morning hours (11PM to 4AM), it is possible that you might encounter them at any time you are driving. Be alert and watch for drivers with erratic driving habits (inconsistent speeds, swerving in and out of lanes, and stopping for no reason at all).

Vehicle Factors

Conducting a proper pre-trip can help you address most vehicle factors. Lights are one of the most important equipment items that are used for nighttime driving.

Be sure your headlights are clean and operational. With low beams, you can see approximately 250 feet ahead. With high beams, you can see approximately 350-500 feet ahead.

While headlights help you to see what is on the road or what is approaching, other lights on the bus help others to see you. Your reflectors, marker lights, clearance lights, taillights, and identification lights, should also be clean and operational. Each Kentucky school bus also has a strobe light at the top of the bus. This should be used in darkness and during inclement weather to allow others around the bus to see it.

Drivers should always be sure the brake lights and turn signals are operational. They inform other drivers of your intentions. At night, they are even more important.

DISTRACTED DRIVING

A driver distraction is anything that removes the attention of a driver from their focus of driving. Whenever you are driving a vehicle and your full attention is not on the driving task, you are putting yourself, your passengers, other vehicles, and pedestrians in danger. A driver should recognize potential distractions and take necessary steps to remove or minimize those distractions. Distracted driving can cause accidents, resulting in injury, death or property

damage. In this section we will explore types of distractions, where they occur, potential distractions, and effects of distracted driving.

TYPES OF DISTRACTIONS

There are three main types of distraction:

- Visual: taking your eyes off the road;
- Manual: taking your hands off the wheel, and
- Cognitive: taking your mind off driving.

A distracting activity may include one or more of these types. For example, someone reaching for and using a cellphone while driving, would be engaging in all three types of distractions in this one activity.

WHERE THEY OCCUR & EXAMPLES OF POTENTIAL DISTRACTIONS

Typically, there are two main locations of these various distractions: inside and outside the vehicle.

Inside: Although not an exhaustive list, the following are a few activities that could take place inside the vehicle that can distract your attention to driving: talking to passengers; correcting behavior of passengers; adjusting the radio or climate controls; eating and drinking; reading maps or route sheets; talking on a phone or CB device; daydreaming, or being occupied with other mental distractions.

Outside: Some distractions that can occur outside a vehicle include other vehicles, traffic, pedestrians, objects in roadway, sunlight, and reading billboards or other advertisements.

EFFECTS OF DISTRACTED DRIVING

Effects of distracted driving include slowed perception, which may cause you to be delayed in perceiving or completely fail to perceive an important traffic event; delayed decision making and improper action, which can cause you to be delayed in taking the proper action or make incorrect inputs to the steering, accelerator or brakes.

In addition to the above effects of distracted driving, there is another effect that is significant for school bus drivers. Passing up student stops is often a result of inattention or distracted driving. Many districts require drivers to radio if a stop is passed or missed. If a driver, who is familiar with a route, is passing by stops, it is often a sign of daydreaming or being distracted by some other means.

The Large Truck Crash Causation Study (LTCCS) reported that eight percent of large-truck crashes occurred when Commercial Motor Vehicle (CMV) drivers were externally distracted, and two percent of large truck crashes occurred when the driver was internally distracted. Approximately 5,500 people are killed each year on U.S. roadways and an estimated 448,000 are injured in motor vehicle crashes involving distracted driving (NHTSA Traffic Safety Facts: Distracted Driving). Research indicates that the burden of talking on a cell phone - even if it's hands-free - saps the brain of 39% of the energy it would ordinarily devote to safe driving. Drivers who use a hand-held device are more likely to get into a crash serious enough to cause injury. (NHTSA distracted driving website) As stated in Chapter 1, it is illegal to use a handheld wireless device while the CMV is in motion.

ELIMINATING/MINIMIZING IN-VEHICLE DISTRACTIONS

Your goal should be to eliminate or significantly minimize all in-vehicle distractions before driving begins. The following are suggestive steps to take.

- Consider all potential in-vehicle distractions before driving.
- Develop a preventative plan to reduce/eliminate possible distractions
- Expect distractions to occur.
- Verbalize to students when it is an appropriate and safe time to have conversations with drivers.
- Discuss possible scenarios before getting behind the wheel and formulate a preventative plan to reduce/eliminate possible distractions.
- If drivers react a half-second slower because of distractions, crashes double.

RECOGNIZING OTHER DISTRACTED DRIVERS

You need to be able to recognize other drivers who are engaged in any form of driving distraction. Not recognizing other distracted drivers can prevent you from perceiving or reacting correctly in time to prevent a crash.

Here are a few things to watch for:

- Vehicles that may drift over the lane divider lines or within their own lane.
- Vehicles traveling at inconsistent speeds.
- Drivers who are preoccupied with maps, food, cigarettes, cell phones, or other objects.
- Drivers who appear to be involved in conversations with their passengers.

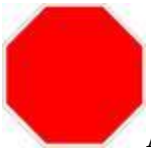
Give a distracted driver plenty of room and maintain your safe following distance. Be very careful when passing a driver who seems to be distracted. The other driver may not be aware of your presence, and they may drift in front of you.

TRAFFIC AIDS - SIGNS and LIGHTS

Traffic laws and signals are standard throughout the state, but traffic signs may vary depending upon the local road geography. Standardized traffic control devices are used to control and guide driver behavior. Most bus drivers will be familiar with many of the devices because they have been driving private automobiles for several years.

The driver should be able to describe the meaning and proper driver reaction to the various shapes and colors of traffic signs. Size, shape and color are used in specific ways and each convey a definite message.

SHAPE



An octagon (eight-sided) shape always means stop. It is red with white letters and has eight (8) sides. It means you must come to a complete stop in a safe position in relation to traffic, then proceed when the way is clear.

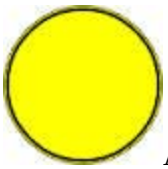
Come to a complete stop and yield right-of-way to pedestrians.Stop behind marked or unmarked crosswalk or stop line. Without stop line or crosswalk, stop even with the stop sign. If sign is placed so that a driver should not stop at the stop sign, stop at the point nearest the intersecting roadway where the driver has a view of approaching traffic on the intersection roadway. A driver's choices for stopping are (in order) 1) stop line, 2) stop sign, 3) common sense.

NOTE: At a cross street, the driver may have to make two or more complete stops. The driver must stop at the designated stop and, if unable to see, he must move forward until he is able to see clearly in all directions and stop again before proceeding.

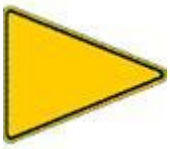
A diamond shape is a warning of existing or possible hazards on the roadway on adjacent areas.

An inverted triangle shape means to yield. Slow down and be ready to stop if needed. Give the right-of-way to traffic and pedestrians.

A red slash inside a circle means you cannot do something.

 A round shape (circle) means railroad crossing. In Kentucky, all school bus drivers must stop at all railroad crossings (15 to 50 feet).

 A pentagon (five-sided) shape tells you there is a school zone or school crossing ahead. Slow down and watch for children.

 A pennant means no passing. It is usually found on left side of road.

 A triangle means a slow moving vehicle. A vehicle carrying this sign cannot travel faster than 25 MPH.

 A shield guides. It identifies highway by number and symbol as part of national, state or local system.

 A horizontal (rectangle) shape is a guide sign.

COLOR

The color of the sign also has meaning:

Red - Stop, yield, do not enter or wrong way.

Yellow - General warning of what to expect ahead.

Blue - Information about motorist services along the road.

Green - Guide information such as distance or direction.

White - Regulatory.

Black - One-way traffic and weigh stations.

Orange - Warning of construction and maintenance.

Brown - Public recreation areas and scenic guidance.

TRAFFIC SIGNALS

Traffic signals are valuable devices to control traffic and assign right-of-way. The message in traffic signals is relayed through the use of colors, therefore, the meaning of the colors have been standardized. The three main colors which guide traffic flow are Red, Green, and Yellow.

RED

A red light without a green arrow means "STOP" behind a crosswalk or stop line until the green light appears.

YELLOW

The yellow light means that the traffic signal is about to turn red. Stop if you can do so safely. Never try to "beat" a yellow light. Not only is it unsafe, it is against the law to be in an intersection when the light is red, even if it was yellow when you entered. A vehicle should clear the intersection by the time the light changes or, if unable to, the vehicle should stop.

GREEN

If the way is clear, you may go straight or turn left or right, unless such turns are prohibited.

FLASHING LIGHTS

A flashing yellow light means you must slow down and watch for others. It is found at intersections, construction areas and on some emergency vehicles such as tow trucks.

FLASHING RED LIGHTS

Flashing red lights means that you must come to a complete stop and proceed only when the way is clear.

FLASHING YELLOW ARROW

A flashing yellow arrow means you may proceed with caution in the direction of the arrow.

TWO FLASHING RED LIGHTS

Two flashing red lights mark a railroad crossing.

LIGHTED ARROWS

Some intersection traffic lights have lighted arrows in addition to the regular lights to tell you when it is your turn to proceed.

GREEN ARROW

A green arrow means you may proceed in the direction of the arrow provided you are in the proper lane. Yield to pedestrians and other traffic in intersection.

ARROW POINTED UPWARD OR DOWNWARD

This means you may go "straight ahead." When there is more than one traffic light, obey the one that is over your lane.

LANE SIGNALS

Green – A steady green arrow pointed downward indicates drivers are permitted to drive in that lane.

Yellow – A steady yellow "X" indicates that drivers should clear that lane as signal is preparing to change to red.

Red – A steady red "X" indicates that drivers should not drive in that lane.

REGULATORY SIGNS

Regulatory signs inform highway users of traffic laws or regulations. Regulatory signs are generally a rectangle with the longer dimension vertical with a black legend on a white background. Other colors and shapes are also used.

Two (2) of the most common regulatory signs are used to indicate right-of-way. These are stop

and yield signs.

- They are used to control turning movements.
    - “Do Not Turn Right”
    - “No U Turn”
- Used to control alignment
    - “Pass With Care”
    - “Do Not Pass”
- Indicate exclusion
    - “Do Not Enter”
    - “Wrong Way”
- Prohibiting certain types of vehicles
    - “No Trucks, No Bicycles”
    - “Motor Vehicles Only”
- Indicate one-way movement.
- Control parking
    - “No Parking Any Time”
    - “No Stopping, Standing, or Parking”
    - “No Parking, Bus Stop”
    - “One-hour Parking”
    - “Parallel Parking Only.”
- Supplement information given by traffic signals
    - “Stop Here On Red”
    - “No Turn on Red”
    - “Crosswalk”
- Other controls
    - axle weight limits
    - railroad crossings
    - road is closed to through traffic

WARNING SIGNS

The second major classification of traffic signs is “warning signs.” Warning signs inform the

driver of situations ahead which may require extra care. These signs are yellow with black lettering and generally are diamond-shaped. Other shapes are used for very specific purposes. In addition to the signs below, additional signs include highway grades and advance warning of railroad crossing.

Warning signs are used to:

- Show changes in horizontal alignment
    - Turns, curves and winding roads
- Various types of intersections ahead or crossroad and are indicated symbolically.
    - "T", "+", and "Y" intersection
- Advance warning of traffic control devices
    - "Stop Ahead"
    - Pictures of the device ahead, such as yield sign or a traffic signal
- Show converging traffic lanes
    - Symbolic merge sign
    - Message or symbolic sign for showing the right lane ends
- Indicate narrow roadways
    - "Road Narrows"
    - "One-Lane Bridge."
- Changes in highway design
    - "Divided Highway Ahead"
    - "Divided Highway Ends"
    - "Two-Way Traffic
- Roadway surface conditions
    - "Bump"
    - "Soft Shoulder"
    - "Slippery When Wet"
- Entrances and crossings
    - "Truck Entrance"
    - "Deer Crossing"
    - "Bicycle Crossing."

- Advisory Speed
    - Entrance Ramp Speed
    - Exit Ramp Speed
- Special type
    - "No Passing Zone"
        - When used, they are on the left side of the road and used in conjunction with the regulatory "Do Not Pass" sign.
- School signs
    - "School Area"
    - "School Crossing."

GUIDE SIGNS

"Guide signs" are the third major classification of traffic signs and guide drivers along streets and highways, informing them of interesting routes or directing them to their destination. They are generally rectangular in shape and have a white message on a green background. On conventional roads and streets, black messages on white backgrounds are frequently used as an alternative. Also, different colors and shapes are used for special purposes.

Guide signs include:

- Route marker- illustrates those used on, or in conjunction with the interstate system
    - US routes, state routes, county roads and roads in national parks and forests
- Junctions of highways
- Cardinal direction of a highway
- Alternate routes
- Advance route
    - Turn arrows and directional arrows
- Mileage signs
    - Mileage always runs from south to north or west to east and begins at the state line or at a junction where the route begins.
- Locations of airports, bus stations and train stations
- Gas, food, lodging or camping

- Special guide signs:
- White message on a brown background - recreation areas
- White messages on a blue background - service sign
    - Phone
    - Hospital
- Black letters on a yellow background -“Exit Only”
    - Advise drivers of an imminent lane end situation

Highway construction and maintenance signs fall into the same three (3) major classifications as other signs. Regulatory signs used in construction and maintenance zones use the normal standard colors, shapes and messages. Warning and guide signs also use the standardized shapes and messages, but are distinctive in that black letters are used on an orange background. Typical construction and maintenance warning signs warn of construction or a detour ahead. They can warn of road work, shoulder work or a survey crew ahead. Typical construction and maintenance guide signs provide information on the length of a construction or maintenance zone or the direction of a detour.

ROADWAY MARKINGS

Like traffic signs and signals, roadway marking have a purpose and convey a specific meaning. In some cases, they supplement the regulations and warnings conveyed on traffic signs and signals. In other instances, they are used alone as there is no other way to effectively communicate this information. Roadway markings are standardized in color and type.

The different types of lines used in roadway markings are:
White– defines separation of traffic flow in the same direction.
Yellow– defines separation of traffic flow in the opposite directions.
Broken– are permissive in nature. When traffic permits, broken lines may be crossed.
Solid– are restrictive in nature. Generally, they are not to be crossed.

Solid White– Used to channel traffic and prevent lane changes near intersections. Pavement markings are sometimes used to define pedestrian crosswalks. When lines are used, they run all

the way across the pavement. If a stop is required, drivers must stop before crossing the pedestrian crosswalks. They are also are used to mark the edge of the pavement. Pavement edge lines should not be crossed at moderate to high speeds. They may be crossed, however, at slow speeds when it is necessary to pull off onto the shoulder. When solid white lines separate traffic moving in the same direction, do not cross to change lanes.

Broken White– separate traffic lanes moving in the same direction when a roadway has more than one (1) lane moving in the same direction. When traffic permits, broken white lines may be crossed to change lanes.

Solid Yellow– separates traffic moving in the opposite direction. When the solid yellow line is on the driver's side of the road, it must not be crossed. One of the newer uses of the solid and broken yellow line used together, is to define a left turn lane. The left turn lane is marked on both sides by both solid and broken yellow lines. Drivers wishing to turn left must turn from this lane.

Double Solid– indicate maximum restriction. Indicates that passing is prohibited in either direction on two-lane roads. Double solid yellow lines also indicate the center of the road on roads of four or more lanes.

Broken Yellow– separates traffic moving in the opposite direction. When the broken yellow lines are on the driver's side of the road, it may be crossed if oncoming traffic permits.

White Arrows – are used to show direction of travel for a given lane.

Center Lane, Left Turn Only – (marked on both sides by solid yellow and broken yellow lines). Use only when turning left. Do not use for passing.

Crosswalk Lines – Indicate where pedestrians are to cross. Do not block crosswalks. Yield to pedestrians.

Stop Lines – Indicates where a vehicle must stop at intersections.

Delineators- special kinds of guide markings to aid drivers at night. Reflective devices are sometimes used on long continuous stretches of highway or on short sections where there is a change in the curvature of the road. Delineators are intended to help guide motorists as to the horizontal and vertical alignment of the highway. Delineator colors conform to the edge line colors painted on the highway.

Three (3) colors are used:
White – may be placed on the side of the roadway.
Yellow – may be placed on the left side of the roadway.
Red – placed backwards on a ramp or roadway so it would be viewed by motorists traveling in the wrong direction on the ramp or roadway.

CHAPTER 3

CARE AND MAINTENANCE

OBJECTIVES

The bus driver will be able to:

- describe basic bus components
- detect symptoms of possible trouble
- identify driving actions which prevent undue wear on the bus
- identify interior and exterior maintenance tasks
- perform a pre-trip inspection of a bus

OVERVIEW

Preventative maintenance is the care of a vehicle to ensure safety, dependability and maximum life of the vehicle. It involves organized inspections at regular mileage or time intervals and immediate attention to all reported defects. These inspections involve checking, cleaning, tightening, lubricating and adjusting parts and units. Inspections are the simplest and most economical means of protecting the bus fleet and are the key to a good preventative maintenance program.

A trained mechanic will carry out the maintenance inspection program, but the school bus driver is able to observe a bus's performance under all conditions. Defects should be recognized and immediately reported to the maintenance department. A driver should not wait in order to try and self-diagnose issues with the bus. A bus driver is responsible for turning in the school bus when requested by the technicians so that proper maintenance can be done. A school bus is to be inspected every 30 days. A bus that is not inspected in the 30 days is deadlined, which means it is no longer allowed to be driven for the transportation of students. Each school district will have a maintenance schedule that technicians and drivers must follow. A driver that does not turn in the bus when requested, could potentially be preventing required maintenance to be completed, putting the bus in an unsafe condition.

We will be going over a brief explanation of the basic bus components and at the completion of

this section and you should be able to briefly discuss how each component works. Technical and in-depth knowledge and explanations are not needed, but understanding the basic concept of the component is the goal.

Lesson 1

SCHOOL BUS COMPONENTS

A driver should have a basic knowledge of school bus components to understand their effect on the operation of the school bus. There will be times when this knowledge will be useful in adjusting driving performance and in detecting trouble while on the route. Proper driving habits will increase bus efficiency and economy of operation as well as prolong the life of the bus.

BRAKING SYSTEM

- Hydraulic
- Air

Pressing on the brake pedal forces fluid into the brake cylinder or air into the air chamber. On hydraulic systems, the cylinder moves the brake shoes outward against the brake drum. On an air system, the air chamber rotates the s-cam and forces the shoes against the brake drum. This creates friction causing the wheel to slow and stop.

TRANSMISSION AND DRIVESHAFT

Gears allow you to change the ratio of number of engine revolutions to number of wheel revolutions.

CLUTCH

When depressed, disconnects engine from transmission, allowing changing of transmission gears.

STEERING

The steering wheel and column connect to gears and a linkage mechanism which change direction of front wheels.

ELECTRICAL SYSTEM

Supplies power for primary engine functions and auxiliary functions.

Primary Engine Function

- Power generation and storage (battery, generator/alternator and voltage regulator)
- Power distributions (engine wiring)

Auxiliary Functions

- Inside/outside lighting (headlights, amber/red flashing warning lights, turn signals, instrument panel lights, etc.)
- Air/heat circulation (heater, defroster, blowers)
- Horn

SUSPENSION

Leaf springs, air bags, and mounted shock absorbers enable the driver to handle the bus properly on rough terrain and sharp curves, etc.

TIRE CONSERVATION AND SAFETY

Check tires for cuts, bruises, uneven wear and air pressure. The following will improve tire life and vehicle safety:

1. Reduce mileage. Use the bus only on scheduled trips and avoid unnecessary driving.
2. Drive at low speeds.
    a. Tires will last twice as long at 30 mph compared to 50 mph.
    b. High speed harms tires more in hot weather than in cold. Tires wear six times faster at 100 degrees than at 40 degrees.
    c. Drive slowly, especially on roads with sharp, projecting stones.
    d. Drive slowly on curves and turn slowly. Speeding around curves multiplies tire wear.
3. Maintain tire pressure at the level recommended by the tire manufacturer.
    a. Slight under-inflation increases tire wear. Six pounds under inflation for a tire which should carry 30 pounds of pressure will decrease the life of the tire at least

20 percent.

   b. Learn what the pressure should be and check all tires, including spares, once a week. Keep valve cap screwed on tightly.

4. Avoid rocks, holes, curbs, glass and other objects
   a. Anything which produces a sudden sharp bend in the casing is likely to break cords within the tire; other cords break around the weak spot and the tire will fail as a result.
   b. Cuts or bruises in the side wall will shorten tire life.
5. Complete a daily inspection
   a. Inspect tires daily for cuts, snags, bruises, nails, glass and gravel.
   b. Water and grit get in at flaws and destroy interior cord structure.
6. Avoid fast starts and stops as they scuff off tire tread. One ten-foot skid takes many miles off tire life.
7. Keep brakes adjusted so tires evenly brake.

Lesson Overview: Ask the students questions, and give them ample time to answer. Once answered, provide feedback and encourage a discussion.

1. Which bus component is made up of a system of gears? Transmission
2. Which system is responsible for the way the bus handles and rides on rough terrain and in sharp curves? Suspension
3. Which bus system works on fluid or air pressure? Brakes
4. Which component disconnects the engine from the transmission so you can change gears? Clutch
5. When inspecting tires, what are you looking for? Cuts, bruises, uneven wear and air pressure

Lesson 2

DETECTING SYMPTOMS OF POSSIBLE TROUBLE

Visual Tools: Ask the technicians for items which are obvious to a driver as broken, cracked or unsafe. This will be a good time to bring in old oil so the driver can see and smell it.

Additional Tools: You may want to invite one of your bus technicians to answer questions. The intent is to gain basic knowledge of the school bus, not become mechanics.

Hands-on Lesson: Describe, in detail, your local procedure for reporting any of the symptoms discussed. Provide your district's forms for reporting issues and give each of the drivers an issue. Ask them to fill out the form, after it has been explained. Once the form has been completed, go over them and address any issues immediately.

***Stress anything they notice that is out of the ordinary should be reported. There is danger in thinking that an unusual noise, etc., is nothing to worry about, especially if a driver has mechanical experience. Be sure they understand they don't need to know what is wrong before they report something "suspicious." **It is better to report any unusual condition, even if it turns out to be minor, than to not report something that could be dangerous and/or costly.**

Be alert for symptoms of problems. Use your senses to detect signs of possible trouble. Anytime something doesn't seem right, go with your instincts and call it in.

LISTENING FOR TROUBLE

- Sharp knock when picking up speed or light knock when engine is idling
- Dull regular knock, clicking or tapping noises
- Continuous or intermittent squeal or squeak
- Loud exhaust noise
- Engine backfiring, missing, popping, spitting or overheating
- Steaming or hissing

FEELING FOR TROUBLE

- Excessive vibration in the engine compartment, steering wheel, and/or drive line
- Low speed or high speed shimmy
- Hard steering and/or steering wander

LOOKING FOR TROUBLE

IF ANY OF THESE OCCUR, THE VEHICLE SHALL NOT BE DRIVEN UNTIL THE PROBLEM IS CORRECTED

- Sudden drop in oil pressure
- Low oil pressure
- No oil pressure
- Excessive oil consumption
- Smoke coming from under the dash
- Smoke coming from under the hood
- Scuffed tires or spotty wear
- High temperature reading
- Drop in air pressure

SMELLING FOR TROUBLE

ANY OTHER UNUSUAL CONDITIONS SHOULD BE REPORTED IMMEDIATELY TO THE PROPER AUTHORITY

- Odor of diesel fuel
- Odor of burning rubber
- Odor of burning oil
- Hot/burning electrical smell
- Exhaust fumes

Now that you are familiar with the basic components of a school bus and we have discussed being alert for signs of possible problems, let's look at each component and discuss specific signs of trouble.

PREVENTING PROBLEMS BY DETECTING TROUBLE EARLY

BRAKING SYSTEM

- Drop in air pressure (air brakes only).
- With no brakes applied, should not leak more than 2 PSI per minute.
- More than one inch play in slack adjusters
- Low brake pedal (hydraulic or vacuum- hydraulic brakes)
- Spongy or soft brake (hydraulic or vacuum-hydraulic brakes)
- Smell or see brake fluid (hydraulic or vacuum-hydraulic brakes)
- Brake drum very hot (all types)

ENGINE

- Engine miss at low speed
- Engine miss at high speed
- Ping when accelerated
- Dull "clunk" at idle
- Sharp, loud knocking; **SHUT OFF ENGINE IMMEDIATELY**!
- Heat gauge indicates temperature rising higher than normal

- Oil pressure dropping below normal
- Engine stalls or runs sluggishly

TRANSMISSION AND DRIVESHAFT

- Hard shifting
- Slipping out of gear
- Clunk or jerk when power is applied or released
- Unusual sounds when power is applied

CLUTCH

- Motor revving with clutch engaged and vehicle in gear and moving
- Odor of burning clutch lining
- Gear clash
- Squealing sound when clutch pedal depressed, with engine running
- Clutch “chattering”

AUTOMATIC TRANSMISSION AND DRIVESHAFT

- Leaks
- Slipping or loss of power
- Jerk or clunk when shifting up or down
- Fails to shift

STEERING

- Steering very difficult
- Wheels shimmy
- Bus veers one way or the other
- Bus wanders on roadway
- More than two inches (2”) free play in steering wheel with engine running

ELECTRICAL SYSTEM

- Voltmeter indicates an under or over charge: **WATCH OUT FOR FIRE**
- Smoke appearing around wires, switches, etc.
- Voltmeter indicates heavy charging
- Lights dim

SUSPENSION

- Bus bounces or rolls from side to side easily
- Bus out of alignment
- Bus "bottoms" on bumps

It is better to report any unusual condition, even if it turns out to be minor, than to not report something that could be dangerous and/or costly.

Lesson Overview:

Ask the students questions. Provide feedback once the questions are answered. Be sure to give them time to answer. Lead and encourage discussion answering questions as they are asked.

1. What is an early sign of trouble for the braking system? Drop in air pressure, low brake pedal, etc.
2. If it is hard to shift, what might be causing an issue? Transmission
3. What should you do if you hear a loud knocking sound? Shut off the engine immediately
4. If the voltmeter indicates an under or over charge, what could the result of this be? Fire

Lesson 3

DRIVING ACTION PREVENTING WEAR ON THE BUS

The bus driver will be able to identify driving actions which prevent undue wear on the bus. If you have access to actual worn brake shoes, clutch plates, or other items, pass them around for examination by the class. You may want to invite one of your bus technicians to answer questions. The intent is to provide an understanding of how the driver's daily activities effect the bus.

Student Lesson:

It is important to understand that your driving habits can help avoid undue wear on each specific bus component. In this section, we will discuss ways you can help prolong the life of the bus.

BRAKES

- Do not jam brakes on hard, apply steady and smooth pressure.
- Do not depress clutch until engine stall speed is reached so engine can assist in stopping the bus.
- Do not drive with your foot resting on the brake pedal.
- On buses equipped with air brakes, drain water out of air reservoir (if board policy permits).
- Pump the brakes (once or twice) on long, hard stops.
- Before starting downhill, shift to lower gear to aid heat dissipation and reduce brake fade. If air brake equipped, check gauges; should be capped off at 120-125 PSI.
- Before starting downhill, place bus in proper gear. If low air pressure alarm comes on, pull over to side of road, secure vehicle and do not move until air pressure is up to safe level.

REMEMBER: The use of brakes on a long and/or steep downgrade is only a supplement to the braking effect of the engine. Once the vehicle is in the proper gear, the following is a proper braking technique:

1. Apply the brakes just hard enough to feel a definite slowdown.
2. When your speed has been reduced to approximately five (5) mph below your "safe" speed, release the brakes. This brake application should last for about three (3) seconds.
3. When your speed has increased to your "safe" speed, repeat steps 1 and 2.

EXAMPLE:
If your "safe" speed is 40 mph, you would not apply the brakes until your speed reaches 40 mph. You now apply the brakes hard enough to gradually reduce your speed to 35 mph and then release the brakes. Repeat this as often as necessary until you have reached the end of the downgrade. Escape ramps have been built on many steep mountain downgrades. Escape ramps are made to stop runaway vehicles safely without injuring drivers and passengers. Escape ramps use a long bed of loose, soft material to slow a runaway vehicle, sometimes in combination with an upgrade.
Know escape ramp locations on your route. Signs show drivers where ramps are located. Escape ramps save lives, equipment and cargo. Use them if you lose your brakes.

ENGINE

- Do not race engine during warm-up
- Do not speed at any time
- Do not lug engine; this causes engine and driveline damage.
- Lugging – trying to go up a hill in too high a gear which causes a strain on the engine
- Do not allow engine to operate beyond established oil changes and maintenance intervals
- Do not accelerate too quickly; this causes extreme stress during periods when oil pressure is low and results in excessive wear
- Do not attempt to operate engine when oil pressure is low, temperature is high, or voltmeter indicates a continuous discharge
- Do not add water to overheated engine
- Never remove a radiator cap on a hot engine
- Allow diesel engine to idle according to manufacturer's recommendations before shutting off engine

TRANSMISSION AND DRIVESHAFT

In an automatic equipped bus, select a lower range to slow the bus.

- Avoid fast acceleration on rough surfaces
- Do not release the clutch quickly
- Transmit power and shift smoothly (coordination)
- Avoid jerky movements of any kind

STEERING

- If you cannot avoid potholes, drive around them if possible, or slow down if you must drive through them.
- Have mechanic inspect steering if you hit a bad bump or pothole

ELECTRICAL SYSTEM

- Do not drive when voltmeter indicates discharge
- Do not start engine with lights or heaters on
- Check belt tension and battery water level
- Do not operate heaters and lights for an extended period when bus or engine is stopped
- Do not run lights and/or heaters for a prolonged period of time with engine at idle

SUSPENSION

- Do not travel fast on rough roads
- Do not cross rough areas at high speeds
- Check wheel alignment if the bus is on a rough road frequently

BUS CLEANLINESS

- Safeguard student health
- Prevent incidents caused by students falling, tripping or slipping on the floor
- Serve as a role model for students. Enlist student cooperation in keeping the bus neat and clean and do not allow eating or drinking on the bus

- give the public a favorable impression
- help prolong the life of the bus

Just as driving actions have an effect on the bus and the environment, so do idling practices. Newer buses have an anti-idling component that will automatically shut the bus off after a certain time limit. Older buses do not have this component and will require the driver to be mindful of how long the bus is running. A bus doesn't need more than a few minutes to warm up. The longer the bus is running and idling, the more gas that is being used; the more pollutants are being put into the atmosphere; and the more pollutants students and others are breathing in. Good practices to be aware of:

- Turn off the bus upon reaching a school or other destination (after cool down period) and do not turn on the engine until necessary to depart from the school or destination.
- Park the bus at least 100 feet from a known and active school air intake system, unless the school district has determined that alternative locations block traffic, impair student safety, or are not cost-effective.
- Do not park nose-to-tail when it can be avoided. Your exhaust will go into the air intake of the bus you are parked in front of.
- Leave sufficient following distance between other buses at all times.
- Arrive at the school as close to the scheduled time as possible to maintain interior warmth during cold weather.

Regardless of the engineering involved, a school bus cannot continue to deliver maximum safety, economy and dependability unless it is properly maintained. Although skilled mechanics repair the school buses, a driver can do much to aid the mechanic and prolong the life of the vehicle by following the guidelines in this manual.

Lesson Overview:

Ask the students questions, and give them ample time to answer. Once answered, provide feedback and encourage a discussion.

1. Should you drive with your foot resting on the brake? No
2. Do not attempt to operate engine when oil pressure is low, temperature is high, or

voltmeter indicates a continuous discharge. True or False? True

3. Have mechanic inspect steering if you hit a bad bump or pothole. True or False? True
4. Park nose-to-tail when possible. True or False? False

Lesson 4

INSPECTING THE BUS

Daily inspections will help the driver identify problems for repair and maintain a clean and safe bus. Regular inspections will help decrease maintenance costs. The pre-trip inspection shall be part of a driver's daily routine. The time invested in the pre-trip inspection could result in the saving of lives, or avoid an on-the-road breakdown or collision.

There are three inspections that are conducted by a school bus driver. They consist of the pre-trip inspection, walk-around inspection and the post trip inspection. Each should be done daily, when a school bus is in use.

WALK -AROUND INSPECTION

A walk-around is an inspection that is done during subsequent bus runs, after the initial pre-trip inspection has been completed. Walk-arounds consist of checking the items below. Use the procedures from the pre-trip inspection for each item.

1. Steering
2. Tires
3. Console
4. Dash Panel
5. Mirrors
6. Service Brake
7. Park Brake
8. Emergency Equipment

PRE-TRIP INSPECTION

All school buses must have a complete pre-trip inspection that meets federal and state regulations before the first trip each day. A pre-trip must also be done by any subsequent driver that uses the bus.

Example: If you use bus 101 for the first time today, you must complete a pre-trip inspection. If you go to Bus 102 later, and it was used by someone else, you must complete a pre-trip inspection. The first person may have missed something important. If you go back to bus 101 and no one else has used it since you did the pre-trip inspection, you will not have to perform another pre-trip inspection. However, if someone else used it after you did the initial pre-trip, you must complete another one. Something may have happened to the bus while it was being used and you need to ensure it is in good operating condition before using it.

Follow along using the pre-trip inspection form.

ENGINE COMPONENTS

1. As you approach the vehicle, check the posture of the bus. Make sure it is not leaning to either side and there are no obstacles, such as wires or tree limbs in the path of the bus. Look under the front of the bus to check for oil, transmission fluid, water or anti-freeze leaks, check crossing gate, if equipped.
2. Check front lights, lens covers and reflectors. Make sure they are mounted and secure. Check west coast, fender and crossover mirrors.
3. Check the windshield for anything that may obstruct your view. Check wipers to make sure the rubber is mounted and secure. Check spring tension on wipers.
4. Open hood latches; each latch must be mounted and secure. Visually inspect the hood for damage.
5. Check engine oil, automatic transmission fluid (if so equipped) and windshield washer fluid.
6. Inspect the engine, one side at a time. Check power steering fluid, hoses and belts. Make sure everything is mounted and secure with no leaks and no more than ¾" play in the belts. Check steering shaft, steering box and steering linkage for securement.
7. Check radiator and heater hoses, in addition to the reservoirs for leaks and sufficient fluid level. Check the water pump located on the front of the engine, behind the fan, for leaks. Check that the belts have no more than ¾" of play.
8. Check air compressor for leaks and securement. Check belts (if equipped) to compressor for frays or cracks and that there is no more than ¾" play.
9. Check alternator and wires. Make sure it is securely mounted with no more than ¾" play in belts.

FRONT SUSPENSION

10. Check leaf springs for broken or missing parts. Check hanger brackets and mounts for securement. Check shocks for leaks.

FRONT BRAKES

11. Check front air line and front air chambers for damage, leaks and securement. Check that the cotter pin is mounted and secure. Check front drums for oil soaking, cracks, welds or rust. You may not be able to check brake linings as all Kentucky School Buses have dust covers.

FRONT WHEELS

12. Inspect front tires for cuts and bruises. Make sure tread depth in major grooves is at least 4/32". Check for mismatched, recapped or re-grooved tires on front. Look down the front of the tire, checking for cuts and bruises. Check rims for cracks, rust, or welds. Check air pressure. Make sure lug nuts are tight and there is no heavy rust, missing lug nuts or leaks in hub oil seals. Check air valves and stems for leaks and ensure caps are on the valves.

EMERGENCY EQUIPMENT

13. Move to the front door. As you enter the bus, open and close the door. Check the glass and rubber seal on the door. Check for broken steps or torn coverings. Make sure hand rails are securely mounted and that pinch points have been eliminated.
14. Check fire extinguisher. Make sure it is charged. Check the first-aid kit. Check for spare fuses. Check for three (3) reflective triangles and body fluid clean-up kit.

START ENGINE

15. Make sure parking brake is on and gearshift is in neutral. Start engine. Allow air pressure to build to 120-140 PSI (typically 125 PSI). Check all gauges; oil pressure, air, voltage, water temperature and fuel gauge. Test window washer and wipers (high and low). Check mirrors for proper adjustment. Test all heaters (high and low), defrosters and fans. Check dome lights, stop arm and override switch. Check front big yellow lights, and amber indicator light, headlights, flashing red stop lights and red indicator light, stop arm, crossing gate, turn signals and four-way hazards. Check for no more than 2" play in 20" steering wheel. Check park brake. With park brake on, place vehicle in low gear. Raise engine RPM to 1500 (if bus moves, brakes are out of adjustment). Check service brake

for air usage per application. On a straight shift air brake equipped bus, place in low gear, release clutch and lightly accelerate with park brake applied. If bus moves, brakes are out of adjustment.

Allow buses with hydraulic parking brakes to slowly roll forward, apply park brake, vehicle should stop. Check horn, driver seat and seat belt.

AIR BRAKE TEST

16. Chock rear wheels (if necessary). Turn OFF the engine. Turn the key to on. Push in parking brake. Start your brake LAB check.

LEAKS - Press on brake pedal for one minute. It should not leak more than 3 PSI per minute.
ALARM – Pump brakes. Alarm should come on before it falls below 60 PSI.
BUTTON – Continue pumping brake. Button should pop out between 40 and 20 PSI.

PASSENGER COMPARTMENT

17. Start engine and build air to 120 PSI; shut engine off but leave key on. Walk through bus checking floors and seat backs. Open and check ALL alarms on emergency windows, roof hatches, left side emergency door, if equipped, and rear door. Big yellow lights should be checked from the back door. Go outside and check all of your lights. Turn signals, hazards, head lights, parking lights, clearance lights, brake lights, marker lights, warning lights and big reds should all be tested. You cannot check back-up lights unless it is dark, because gear needs to be in reverse and the key on.

FUEL AREA

18. Check down right side. No leaks in fuel lines or tank. Check fuel cap, fuel tank and cage for securement. Visually inspect exhaust system, drive shaft and shaft guards, frame,

slack adjusters, air chambers, air lines, drums and shocks. Check windows, reflectors and clearance lights. Visually check rims for cracks, rust or welds; axle seals, inside and outside and spacers. Inspect lug nuts and valve stems. You may not be able to check the drums or brake linings because of dust cover. Visually look for leaks, metal shavings or damage.

REAR SUSPENSION (VISUAL)

19. Check the leaf springs, mounts and air ride, if equipped.

REAR WHEELS

20. Check rear tires (tread depth in rear should be no less than 2/32" in all major grooves) and check tires for proper inflation. Check the rims, lug nuts, drum bolts, axle seals (inside and out) and the spacers.

REAR OF BUS

21. Go to the rear of bus. Check lights, reflectors and rear glass. Open and check rubber seal around door. Check that the license plate is securely mounted. Check all lens covers. Make sure everything is mounted and secure.
22. Check the left side the same as the right. Also check the left emergency door, stop arm and battery box.

SPECIAL EQUIPMENT

23. On lift bus, check wheelchair lift, door, tie downs and floor tracks. Check for "Knife for Life" and fire blanket.

OTHER

24. Check service brakes. Move the bus slowly forward, apply the brakes and check for proper brake operation.

As a school bus driver, safety is your number one priority. Each inspection provides an opportunity to identify anything that may cause a problem. It is also an opportunity for you to

know the bus inside and out. As a driver, you are on the bus daily and can inform a technician of anything that looks unusual. To a technician, what is unusual on your bus, may be normal on another bus. Don't take any chances and report anything out of the ordinary.

POST-TRIP INSPECTION

A post trip inspection is an inspection that is done at the end of each route or trip. It is important so that as the driver of the bus, you can identify areas of concern, including safety concerns.

1. **Check the bus for students**. While verifying no students are on the bus, also check for forgotten books, clothing or other items. Return items to owners on the next trip, or turn them into the office.
2. Sweep the floor and, in the winter, sweep water out of the bus to prevent freezing. Sweep bus steps also.
3. Check bus seats for pencil/pen marks or other damage.
4. Close all windows, hatches, and the front door.
5. Check adjustment of mirrors, driver's seat and vents.
6. Check fuel tank gauge, follow local procedures for filling the fuel tank.
7. Check all lights to ensure they are working.
8. Clean the windshield and side windows, and wash the exterior of bus at regular intervals. Keep all exterior lights, mirrors and the license plate clean.
9. Check outside of the bus for dents and scratches.

Lesson Overview:

Ask the trainee's questions. Provide feedback once the questions are answered. Be sure to give them time to answer. Lead and encourage discussion answering questions as they are asked.

1. What is the importance of the Pre-Trip Inspection? It helps the driver identify problems for repair and maintain a clean and safe bus.
2. When checking the front door of the school bus, what should you be looking for? Broken glass, cracked/broken rubber seal, and to make sure it opens.
3. How long should you hold the brakes during the LAB check? 1 minute
4. When pulling on the slack adjuster, how much play is allowed? No more than 1" play

5. Name the eight components you should check when doing a walk-around.
    1. Steering
    2. Tires
    3. Console
    4. Dash panel
    5. Mirrors
    6. Service brake
    7. Park brake
    8. Emergency equipment

CHAPTER 4

CRITICAL SITUATIONS AND EMERGENCY PROCEDURES

OBJECTIVE

- Understand the causes of critical situations;
- Recognize and be able to respond to different emergencies
- Understand how to stop quickly and safely
- Understand the procedures in case of an incident, mechanical failures/breakdowns and evacuating a bus in case of emergency

INTRODUCTION

Even the most competent bus driver is confronted by critical situations created by various causes; such as hazardous roadway conditions, mechanical malfunction, and unpredictable outside forces or obstacles and driving failures. The professional bus driver is prepared to meet these situations. Listed below are some of the most common critical situations you might experience which we will discuss in this chapter:

- Traction loss, skid control/recovery
- Vehicle malfunction and failure
- Jackknifing
- Rollovers
- Other emergencies

The driver is in full charge of the bus at all times. Knowing proper emergency procedures, emergency evacuation procedures, and incident scene procedures is a must. These areas of responsibility deal directly with the safety and care of your passengers in the event of an incident or emergency situation.

The school bus driver must know what to do, how to do it, and when to do it. Check school district policies concerning incidents, emergency procedures or breakdowns. One of the goals of this unit is helping you properly respond to critical situations. To help you in this regard, we will define and identify critical situations, predict how and why drivers respond a certain way, and

explain how you can improve your responses.

CAUSES

A critical situation is any situation which may result in a collision. Critical situations may be caused by driver action, roadway situation, and/or vehicle malfunction.

Critical situations allow little or no time for decision making and frequently produce an incorrect response. A driver will make close to twenty (20) major decisions every mile. A major decision is classified as one that could be life threatening. The element of surprise influences a driver's actions. Lack of knowledge and skill, and lack of practice of that knowledge and skill can also influence whether a driver is surprised.

RESPONSE

Why drivers respond as they do:

SURPRISE CAUSES HASTY ACTIONS

↕

SURPRISE LEADS TO PANIC/FEAR

↕

PANIC CONFUSES SKILLS

↕

CORRECT ACTIONS MUST BE LEARNED IN ADVANCE

Experience in dealing with a critical situation reduces the emotional impact on drivers and increases the chance of making the correct response.

Drivers can improve their responses by learning the following:

Thinking reduces panic.

↕

Ability depends upon driver mindset.

↕

Knowledge and practice reduces surprise.

↕

"What if" is good practice.

↕

Repetition reduces surprise.

DRIVER SAFETY FORMULA

SKILL

+

KNOWLEDGE

+

CONDITIONING

+

CONCENTRATION

=

REDUCTION IN CRITICAL SITUATIONS

The main point of this formula is a combination of several components that lead to a reduction in critical driving situations. These components will be covered in this unit. A conditioning process and constant concentration will help you prevent critical situations from going beyond the point of no escape. It is felt that if a driver makes a concerted effort to stay away from other vehicles, obstacles, and pedestrians, he/she will lessen the decisions that he/she will be required to make. Thus, the fewer the decisions, the fewer the opportunities for mistakes.

DRIVING EMERGENCIES

When driving any type of CMV there will be instances which cause you to experience emergency driving. Vehicle and traffic emergencies are two types of emergencies that you may face while driving. Vehicle emergencies occur when tires, brakes or other critical parts fail.

Traffic emergencies occur when two vehicles are about to collide. Following the safety practices in this chapter can help prevent such emergencies or at least lessen the severity. Avoiding a crash depends upon how well you take action.

Steering to Avoid a Crash

One way to avoid an incident is to be sure you have allowed enough room to stop your vehicle. However, stopping is not always the safest thing to do in an emergency. If you do not have enough room to stop short of hitting an object or vehicle, you may have to steer away from it. Always remember that you can almost always turn to miss an obstacle more quickly than you can stop. Top heavy vehicles and tractors with multiple trailers may flip over.

Keep Both Hands on the Steering Wheel

In order to turn quickly, you must grip the wheel firmly with both hands on the wheel. This is why both your hands should be on the wheel at all times, because we don't know when an emergency may arise. The thumbs should be on top or outside of the steering wheel.

In order to turn quickly and safely, do not apply the brake while you are turning as it is very easy to lock the wheels. You may skid out of control as a result. The best advice is not to turn any more than needed to clear whatever is in your way. The more sharply you turn, the more chances of your vehicle going into a skid or rolling over.

Be prepared to "counter-steer" or turn the steering wheel back in the other direction, once you have cleared or passed whatever was in your path. Unless you are prepared for such an emergency, you won't be able to do it quickly enough. Emergency steering and counter-steering should be thought of as two parts of one driving action.

Where to Steer

If the oncoming driver has drifted into your lane, moving your vehicle to the right would be the best. If the other driver realizes what has happened, the natural response would be to return their vehicle to their own lane of traffic. When something is blocking your path, in order to know which direction to steer, it would be based on each individual situation.

Mirror scans will help the driver know which lanes are empty and can be safely used. If the shoulder is clear, steering right may be the best direction since something may be passing to your left. If s there is something in your path both left and right, a move to the right may be best. This way you won't be forcing anyone into an opposing lane of traffic for a head-on collision.

Leaving the Road

There are some emergencies that you may face that require you to steer partially or completely from your lane of traffic. This may be less risky than facing a collision with another vehicle. Most shoulders are strong enough to support the weight of a larger vehicle and therefore offers an available escape route. If you leave the road, here are some guidelines.

Avoid Braking

Whenever possible, avoid braking until your speed has reduced to about 20 mph. Then apply brakes very gently to avoid skidding on a loose surface. To maintain control on all surfaces, keep at least one set of wheels on the pavement if possible. This helps to maintain control.

Stay on the Shoulder

If the shoulder is clear, stay on the shoulder until your vehicle has come to a complete stop. Turn on the turn signal and check your mirrors before pulling back onto the road. This could prevent overcorrecting errors.

Returning to the Road

If you are forced to return to the road before you can stop due to a ditch, culvert, pedestrians, or other objects, the CDL manual suggests:

Hold the wheel tightly and turn sharply enough to get right back on the road safely. Do not try to gradually edge back onto the road. If you do, your tires might grab unexpectedly and you could lose control. When both front tires are on the paved surface, counter-steer immediately. The two turns should be made as a single "steer-counter-steer" movement.

HOW TO STOP QUICKLY AND SAFELY

Your natural response to someone pulling out in front of you is to hit the brakes. This is a correct response if there's enough distance to stop and you use your brakes correctly. You should brake in a way that your vehicle stays in a straight line and if necessary be able to turn your vehicle. You can use the "stab braking" method or the "controlled braking" method.

Stab Braking

In using this method, you should apply the brakes all the way and release brakes when wheels lock up. As soon as the wheels start rolling, apply the brakes fully again. (You should allow up to a 1 second delay before the wheels start moving again before applying the brake. Failing to wait for the wheels to start rolling may result in the vehicle not straightening out.)

Controlled Braking

With this method, you should apply the brakes as hard as you can without locking the wheels. Steering wheel movements should be very small when using this method. If you need to make a larger steering wheel adjustment or if the wheels lock, you should release your brakes and re-apply the brakes as soon as possible.

Don't Jam on the Brakes

Emergency braking does not mean pushing down on the brake pedal as hard as possible. This will only keep the wheels locked and in turn cause a skid. If the wheels are skidding, you can't control the vehicle.

BRAKE FAILURE

Loss of Hydraulic Pressure

Brakes kept in good condition rarely fail. Hydraulic brake failures mostly occur for one or two reasons, either loss of hydraulic pressure or brake fade on long hills. When the braking system fails to build up pressure, the brake pedal will feel spongy or go to the floor. Here are some things that you can do in case this occurs.

Downshift your Vehicle. By putting the vehicle into a lower gear, it will slow the

vehicle.

Pump the Brakes. Sometimes pumping the brake pedal will create enough hydraulic pressure to stop the vehicle.

Use the Parking Brake. The emergency/parking brake is separate from the hydraulic braking system. Therefore, it can be used to slow the vehicle. However, be sure to press the release button or pull the release lever at the same time that you apply the emergency brake so that you can adjust the brake pressure and keep the wheels from locking up.

Find an Escape Route. Look for an escape route while slowing down your vehicle. It can be an open field, side street, or vehicle escape ramp. Turning uphill is a good way to slow and stop your vehicle. Make sure the vehicle doesn't start to roll backwards after you stop. Put it in a low gear, apply the parking brake, and if necessary, let it roll backwards into some obstacle that will insure the vehicle to stop.

Brake Failure on Downgrades

To almost always prevent brake failure on steep and long downgrades, go slow and use proper braking procedures. However, once the brakes fail, you're going to need to find something to stop it.

Your best outcome would be an escape ramp. Signs of an escape ramp will be posted where one is available. Use it. They are usually located a few miles from the top of the downgrade. Every year, hundreds of drivers avoid injury to themselves or damages to their vehicle by using these escape ramps. Escape ramps use soft gravel that resists the forward motion of the vehicle causing it to stop. In addition, some escape ramps use the soft gravel along with a gradual uphill grade which will slow and stop the vehicle while holding in place.

Escape ramps, when available, should always be used when there is brake loss when going downhill. When there is no escape ramp available, choose the least hazardous escape route you can. This could be an open field, or a side road that flattens out or turns uphill. Make the move as

soon as brake failure occurs. The longer you wait, the faster the vehicle will go, and the harder it will become to stop.

TIRE FAILURE

Recognize Tire Failure

As soon as you can recognize you have a tire failure, the sooner you will have more time to react. The major signs of tire failure are:

Sound. When you hear a loud "pop or bang" of a blowout it is easily recognized. Anytime you hear this sound assume it is your vehicle.

Vibration. If the vehicle vibrates or thumps heavily, it is possible that one of the tires has gone flat. A flat tire on the rear is harder to detect and it going flat may be the only sign you get.

Feel. Front tire failures usually cause the steering to feel "heavy". Rear tire failures can cause the vehicle to slide back and forth or "fishtail". However, most of the time dual rear tires usually prevent this.

Respond to the Tire failure

When there is a tire failure, you are in danger. The following are to be performed immediately:

Hold the Steering Wheel Firmly. If a front tire fails, it could twist the steering wheel out of your hand. Prevention for this is to always hold the wheel firmly with both hands at all times.

Stay off the Brake. Braking when a tire has failed can cause loss of control. Stay off the brakes until the vehicle has slowed down unless you are about to run into something. Then, brake very gently while pulling off the road and stop.

Check the Tires. After the vehicle comes to a stop and is secured, get out and check all

the tires. This should be done even if the vehicle seems to be handling well. If it was one of the dual tires, the only way you may know there is a problem is to get out and look.

ANTILOCK BRAKING SYSTEMS (ABS)

ABS is a computerized system that keeps your wheels from locking up during hard braking applications. ABS is used in addition to your normal brakes. It does not increase or decrease your normal braking capability. It only activates when the wheels are about to lock up. ABS helps to keep the vehicle under control during hard braking, however it does not necessarily shorten the stopping distance.

How Antilock Braking Systems Work. Sensors detect potential lock up. An electronic control unit (ECU) will then decrease the brake pressure to avoid the wheels locking up. The brake pressure is adjusted to provide the maximum amount of braking without danger of the wheels locking up. ABS works faster than the driver can respond to a possible wheel lockup. At all other times, the braking system will operate in a normal manner.

ABS is indicated by a yellow indicator/malfunction lamp, which will appear on the instrument panel. This includes tractors, trucks, and buses. Newer vehicles have an automatic system check when the key is turned to the "Run" position. The ABS malfunction lamp will light up for a bulb check, then goes off quickly. Some older vehicles, the lamp could stay on until you are driving over 5 mph. If the ABS lamp stays on after the bulb check, or goes on once you are under way, you may have lost ABS control.

How ABS Helps You. Your wheels may lock up when you brake hard on slippery surfaces without an ABS braking system. When wheels lock up, you lose steering control. When the other wheels lock up, you could possibly skid, jackknife, or even spin the vehicle out of control. ABS helps to avoid wheels locking up and maintains control of the vehicle. You may not necessarily stop "faster" with ABS, but you should be able to steer around an obstacle and avoid skids caused by "over braking".

Braking with ABS. You will apply the brake on a vehicle with ABS in the same manner that

you always have. Use just enough braking force necessary to stop safely and keep your vehicle in control. Brake in the same manner regardless of whether you have ABS on the bus, tractor, trailer, or both.

If driving a tractor trailer, always monitor it as you begin to slow down and back off your brakes (if safe to do so) if you start to lose control. There is, however, one exception to the procedure. If you are driving a straight truck or combination with working ABS on all axles, you can fully apply the brakes in an "emergency" stop.

Braking if ABS is Not Working. Without ABS control you still have normal braking functions. Drive and brake as you always have. If your vehicle is equipped with an ABS braking system and the yellow lamp indicator stays on after bulb check, after moving your vehicle up to 5 mph (older models) or comes on during your trip, you may have lost ABS control on one or more wheels. Remember, if your ABS malfunctions, you still have regular brakes. Drive normally, but get the system serviced as soon as possible.

Safety Reminders. ABS won't allow you to drive faster, follow more closely, or drive less carefully. It will not prevent power or turning skids caused by spinning the drive wheels or going too fast in a turn. It doesn't necessarily shorten the stopping distance. It helps maintain control. ABS doesn't increase or decrease ultimate stopping power. It is in addition to your normal brakes, not a replacement for them. ABS doesn't change how you normally brake. Your vehicle should stop as it always stops. ABS is activated when a wheel has "locked up" because of over braking.

ABS won't compensate for bad brakes or poor brake maintenance. Drive your vehicle so you never need to use your ABS. If you need it, ABS could help to prevent a serious crash.

On a national and state level, statistics show that school bus drivers are at fault about half of the time; with failure to yield the right of way being the most common driver violation. Young and elderly drivers have a higher incident rate than the intermediate age group. Defective brakes are the most common mechanical factor, however, mechanical failures cause very few incidents.

TRACTION LOSS

Traction is important for starting, stopping and turning any vehicle. Traction is the friction between the tires and the road surface that prevents the wheels from slipping or skidding. Traction loss occurs when tires lose their rolling grip on the road surface, resulting in partial or total loss of vehicle control. When traction is reduced or lost completely, you are confronted with a critical situation.

CAUSES OF TRACTION LOSS

- Tire conditions
- Hydroplaning
- Environmental conditions
- Driving techniques (over-accelerating, over- braking, over-steering)
- Speed

Skidding can be minimized by:

- Keeping brakes and tires in good working order
- Increasing sight distance and reacting to hazards well in advance
- Matching speed to conditions
- Avoiding over-powering, over-braking and over-steering
- Periodically checking the “feel” of slippery surface
- Staying off the highway when conditions are hazardous

POTENTIAL VEHICLE MALFUNCTIONS

Critical situations influencing the safety of the school bus and its passengers can develop from vehicle malfunctions as well as from traction loss. Listed below are the potential vehicle malfunctions we will discuss at this point:

- Brake loss
- Steering failure
- Tire blow-out
- Headlight failure

- Accelerator sticking
- Engine over-heating
- Stop Arm/Crossing Gate malfunction

BRAKE LOSS

Low air pressure buzzer, gauges

CORRECTION:

1. Use the engine as a brake, downshift
2. Use remaining air pressure to stop bus in a safe location
3. Call for assistance

STEERING FAILURE

Bus does not respond to steering or responds strangely

CORRECTION:

1. Grip wheel firmly – decrease bus speed
2. Stop bus quickly and safely – get off road if safe to do so
3. Evacuate passengers, if needed
4. Secure area

TIRE BLOW-OUT

Front tire – bus will pull in direction of flat

Back tire – rear of bus will swerve or sway violently

CORRECTION:

1. Grip wheel firmly
2. Release accelerator
3. Brake gradually – do not lock wheels
4. Move off roadway when safe to do so
5. Secure vehicle

HEADLIGHT FAILURE

Roadway darkens

CORRECTION:

1. Slow down
2. Stay on path
3. Look for escape
4. Look for alternate lighting to assist you
5. Turn on parking/auxiliary lights
6. Turn on emergency flashers, brake lights and right/left turn signals

ACCELERATOR STICKING

The engine races

CORRECTION:

1. Cut power to wheels by shifting to neutral
2. Depress clutch if manual transmission
3. Get off roadway
4. Turn off ignition

ENGINE OVERHEATS

Shown by temperature gauge or warning light

CORRECTION:

1. Pull off road
2. Shift to neutral and set park brake
3. Run engine at fast idle
4. Stop engine if it does not cool

NOTE: Do not take the cap off the radiator. Because of the tremendous pressure that has built up in the cooling system, the water will shoot out and you could become severely

burned. Call for assistance.

JACKKNIFING

***A bus without passengers may tow a trailer or another vehicle. In those cases, a driver should be aware of the causes of jackknifing and how to avoid or recover from a jackknife. ***

Jackknifing refers to the folding of an articulated vehicle so that it resembles a V shape. If a vehicle towing a trailer skids, the trailer can push the towing vehicle from behind until it spins the vehicle around and faces backwards.

CAUSES OF JACKKNIFING

1. Equipment failure
2. Improper braking
3. Adverse road conditions

NOTE: A driver may attempt a deliberate jackknife in order to stop the vehicle in the event of brake failure.

TECHNIQUES FOR AVOIDING/RECOVERING FROM A JACKKNIFE

- To avoid a jackknife, use ONLY enough braking force necessary to stop.
- To recover from a jackknife, let up on the brakes, if safe to do so, until control can be regained.

ROLLOVERS

A rollover is a type of vehicle incident which results in the vehicle tipping over on its side or roof. Rollovers have the highest risk of fatality than any other type of vehicle incident.

CAUSES OF ROLLOVER

- Unnecessary turning
- Sharp turns

TECHNIQUES FOR AVOIDING A ROLLOVER

- Turn only enough to clear the obstacle in your path
- Avoid sharp turns, if possible
- Drive slowly through curves

INCIDENT PROCEDURES

There are prescribed procedures to follow if a driver is involved in an incident. These are in statute and regulation. Always remember that no two (2) incidents are exactly the same. The sequence of things in the suggested procedure may not be practical in every case. Good common sense should always be the rule.

Remember, a driver's primary responsibility is to their passengers. The driver must remain calm. If a driver is physically unable to perform their duties, they should direct others to perform them. Should this be the case, the oldest and most responsible pupil should be asked to help.

STEPS

The following procedures are recommended, should the driver be involved in an incident or an emergency situation:

1. Set the parking brake.
2. Turn off the ignition and remove the keys.
3. Remain calm and reassure the pupils.
4. Use the emergency reflectors to "protect the scene." When placing emergency reflectors, carry the open reflector in front of you between your body and oncoming traffic so that you will be more visible to other drivers.
5. Protect the scene from traffic and people so that evidence is not destroyed.
6. Under normal circumstances, the vehicles involved should not be moved until law enforcement officers advise to do so, unless the bus is on a railroad track or in danger.
7. Check for injury to pupils. If pupils are injured, follow first aid procedures (first aid is covered in another unit).
8. Keep all pupils on the bus except in the following cases:

a. A fire or the possibility of a fire. The following are some causes of fires:
b. Ruptured fuel tank and fuel lines.
c. Electrical fires.
d. Hot tires, which may catch fire.
    i. Extinguish fire if possible, however, a driver should never endanger themselves or their passengers to extinguish a fire.
e. Danger of Further Collision.
    i. In normal traffic conditions, the bus should be visible for a distance of three hundred feet (300') or more.
f. Whenever passengers are endangered.

9. Account for all pupils.
10. Notify school administrators and appropriate law enforcement agencies of the location and nature of the bus incident.
11. You should carry a list of emergency telephone numbers on the bus.
12. Call for help.
13. Do not discuss the facts of the incident with anyone except the investigating officer and school officials.
14. Make a list of all pupils' names, ages, and addresses (each district should develop a process for this information).
15. Information should be given to the investigating officer concerning the school bus such as insurance, make, model, number, owner, bus number, driver's name, address, driver's license number, and bus serial number, along with the names of children, their ages and seating arrangements. This information should be carried on the bus.
16. While being investigated:
    a. Be patient.
    b. Evaluate questions.
    c. Give clear, concise answers.
17. A driver involved in an incident is required to give his name, address, driver's license number and vehicle registration number. Be ready to give this information to the other driver and also write down the same information regarding him/her.
18. If witnesses are present, other than the pupils, get their names, addresses and license

numbers.

19. The driver should never admit fault or try to assign blame. Generally, the less said the better.
20. Cooperate with school officials:
    a. During the investigation of the incident or during a breakdown, do not release any of the pupils to anyone unless told to do so by school administrators.
    b. If pupils are injured, use the radio to summon help or send someone to call for aid, such as hospital, ambulance or fire department, wherever help can be summoned quickly. The injured pupil(s) should be transported by proper and acceptable means to a hospital for care.
21. When authorized to do so, continue the transportation of the pupils by:
    a. the present bus, if safe and operable; or
    b. a substitute bus.
22. Report the facts of the incident to the school official in charge of pupil transportation and assist in completing the necessary incident report forms.
23. The driver may be required to submit to an alcohol and/or controlled substances screening in accordance with state and federal laws.

REFLECTORS

Put out the triangles by holding them between you and the oncoming traffic, allowing oncoming traffic to see you. To protect the pupils and the bus from further incidents and injuries, place the emergency reflectors in the following manner:

TWO-LANE OR UNDIVIDED HIGHWAY

A. Place the first reflector one hundred feet (100'), or forty (40) paces, to the rear of the bus so that it can be seen but not run over.
B. Place the second reflector ten feet (10') from left rear corner of bus.
C. Place the third reflector one hundred feet (100'), or forty (40) paces, to the front of the bus.

ONE-WAY OR DIVIDED HIGHWAY

A. Place the first reflector two hundred feet (200'), or eighty (80) paces, to the rear of the bus so that it can be seen but not run over.
B. Place the second reflector one hundred feet (100'), or forty (40) paces, from left rear corner of bus.
C. Place the third reflector ten hundred feet (10') feet from the rear corner of the rear of the bus.
D. If the bus is blocking a traffic lane, all reflectors should be placed in that lane.
E. If the bus is on the shoulder of the roadway, the reflectors should be placed on the edge of the roadway.

CURVE OR HILL

A. Place the first reflector one hundred feet (100') to five hundred feet (500'), to the rear of the bus so that it can be seen but not run over. It should be placed beyond the curve, hill, or obstruction.
B. Place the second reflector ten feet (10') from left rear corner of bus.
C. Place the third reflector one hundred feet (100'), or forty (40) paces, to the front of the bus or placed beyond any curve, hill, or obstruction.
D. If the bus is blocking a traffic lane, all reflectors should be placed in that lane.
E. If the bus is on the shoulder of the roadway, the reflectors should be placed on the edge of the roadway.

MECHANICAL FAILURE/BREAKDOWN PROCEDURES

Despite preventative maintenance, buses will have mechanical failures. Know what to do and when to do it if a breakdown occurs on the road.

1. Stop the bus as far to the right as possible (on the shoulder, if available).
2. Secure the bus and activate the 4-way hazard lights.
3. Keep the passengers on the bus. If the location of the bus is unsafe, evacuate the passengers to a safer location.
4. Place reflectors in accordance with state and federal laws.

5. Telephone, radio or contact the proper school authorities, giving the bus location and description of breakdown.
6. See that all pupils are delivered to their destination. Remember, drivers are responsible for the safety of all their students.
7. Complete maintenance repair reports.

EVACUATING THE BUS

Usually, pupils remain on the bus during an emergency. Situations such as fires and unsafe locations will cause the bus should be evacuated.

FIRE OR DANGER OF FIRE

The bus should be stopped and evacuated immediately if the engine or any portion of the bus is on fire or if there is a possibility of fire. Pupils should move to a safe place, one hundred feet (100') or more from the bus, and remain until the driver of the bus has determined that no danger exists.

Situations include:

- If the engine or any portion of the bus is on fire.
- Being near an existing fire and unable to move the bus away or near the presence of gasoline or other combustible materials should be considered as "danger of fire".
- If smoke is present.

UNSAFE LOCATION

In the event that a bus is stopped due to an incident, mechanical failure, road conditions, or human failure, the driver must determine immediately whether it is safe for pupils to remain in the bus or to evacuate. In normal traffic conditions, the bus should be visible for a distance of three hundred feet (300'), or more. A position over a hill or around a curve where such visibility does not exist should be considered reason for evacuation.

A bus must be evacuated if the final stopping point/position:

- Is in the path of a train or adjacent to any railroad tracks

- May change and increase the danger. If, for example, a bus should come to rest near a body of water or where it could still move and go into the water or over a cliff, it should be evacuated. The driver should see that the evacuation is carried out in a manner, which affords maximum safety for the passengers.
- is in danger of collision

In any school bus emergency situation, the driver must use their own judgment when deciding the best action to take under the circumstances. If an evacuation is necessary, the type of evacuation will depend on the particular situation. Make sure the pupils get off of the bus safely and ensure they are safe after they leave the bus by having them assemble at least one hundred feet (100') from the bus and traffic.

EMERGENCY EVACUATION PROCEDURES

A bus should always be evacuated when:

1. there is a fire;
2. there is the potential for a fire to occur; or
3. the vehicle is in a dangerous position.

TYPES OF EVACUATION PROCEDURES

There are eight (8) emergency evacuation plans or procedures:

1. Front door
2. Rear door
3. Side door
4. Front and rear door
5. Front and side door
6. Rear and side door
7. Front, rear and side door
8. Emergency windows, hatches and windshield

FRONT DOOR

Everyone exits through the front entrance.

1. The driver should give the command “emergency bus evacuation, remain seated, front-door.”
2. The driver should open the front door and then stand between the first occupied seats, facing the front.
3. A helper(s) should be appointed to take position outside the front door to assist those leaving the bus.
4. A leader should be appointed to lead the children in a safe direction (to be determined by the driver) at least one hundred feet (100’) away from the bus.
5. Starting with the right seat, begin evacuating by backing toward the rear of the bus while releasing the pupils one (1) seat at a time alternating from right to left until all students are evacuated.
6. Walk to the front of the bus, checking each seat to be sure it is empty.
7. Leave the bus and have the helper(s) go with you to join the other students.

REAR DOOR

Everyone exits through the rear emergency door.

1. The driver should give the command “emergency bus evacuation, remain seated, rear-door.”
2. After the driver announces a rear door evacuation the driver should proceed to the rear emergency door and open the rear door.
3. Have the helper(s) open the door and take position outside the rear door.
4. A leader should be appointed to lead the children in a safe direction (to be determined by the driver) at least one hundred feet (100’) away from the bus.
5. The driver should then start evacuating the passenger’s one (1) seat at a time beginning with the left rear seat first and alternating left and right seats until the driver, who is backing towards the front of the bus, reaches the front of the bus and all students have been evacuated.
6. The driver then should walk to the rear of the bus to ensure that all students have exited the bus.
7. The driver should then exit the bus and join the students at the designated assembly location.

FRONT AND REAR DOORS

Front half exits through the front door and the rear half exits through the rear emergency door.

1. The driver should give the command “emergency bus evacuation, remain seated, front-rear door.”
2. The driver should then stand between the first occupied seats, facing the front.
3. A helper(s) should be appointed to take position outside the front door to assist those leaving the bus.
4. A leader should be appointed to lead the children in a safe direction (to be determined by the driver) at least one hundred feet (100’) away from the bus.
5. Starting with the right seat, begin evacuating by backing toward the rear of the bus while releasing the pupils one (1) seat at a time alternating from right to left until all students riding in the front portion of the bus are evacuated.
6. The driver should then proceed to the rear emergency door and open it.
7. Two (2) helpers should be placed on the ground to assist passengers as they evacuate the bus.
8. A helper should be appointed to lead the children in a safe direction (to be determined by the driver) at least one hundred feet (100’) away from the bus.
9. The driver should then start evacuating the passenger’s one (1) seat at a time beginning with the left rear seat first and alternating left and right seats until the bus is empty.
10. The driver then should walk to the front of the bus, checking that the bus is empty and then leave through the front door and have the helper(s) go with you to join the other students.

SIDE DOOR

Everyone exits through the left side door.

Front Collision

1. The driver should give the command “emergency bus evacuation, remain seated, side door.”
2. When evacuating from the left side, the first thing a driver must determine is if there is traffic approaching the bus from the road and if there is room to evacuate without

jumping into traffic.

3. The driver should go to the left side emergency door and open it.
4. They should swing out the door and look in both directions for other vehicles approaching the bus and ensure that no child is evacuated into the path of a moving vehicle.
5. Two (2) helpers should be placed on the ground at the side door to assist those leaving the bus.
6. A leader should be appointed to lead the children around the bus, toward the rear, facing traffic to a designated location (to be determined by the driver) at least one hundred feet (100') away from the bus.
7. In the event of a front collision, the driver should then begin the evacuation by backing toward the front of the bus while releasing the pupils one (1) seat at a time until all those students riding in the front portion of the bus are evacuated.
8. After the front portion of the bus is clear, the driver should then proceed to the area of the side door and back toward the rear of the bus and release the pupil's one (1) seat at a time until the remainder of the students are evacuated.
9. The driver should then check the bus to determine that everyone has evacuated and exited through the left side door.
10. Walk to the rear of the bus, facing traffic and ensure there are no students alongside the bus and then join the students at the designated location.

SIDE DOOR

Rear Collision

1. The driver should give the command "emergency bus evacuation, remain seated, side door."
2. When evacuating from the left side, the first thing a driver must determine is if there is traffic approaching the bus from the road and if there is room to evacuate without jumping into traffic.
3. The driver should go to the left side emergency door and open it.
4. He/she should swing out the door and look in both directions for other vehicles approaching the bus and ensure that no child is evacuated into the path of a moving

vehicle.

5. Two (2) helpers should be placed on the ground at the side door to assist those leaving the bus.
6. A leader should be appointed to lead the children around the bus, toward the front, with traffic to a designated location (to be determined by the driver) at least one hundred feet (100') away from the bus.
7. In the event of a rear collision, the rear of the bus should be evacuated first with the driver backing toward the rear from the left side door releasing the student's one (1) seat at a time.
8. After the rear portion of the bus is clear, the driver should back towards the front of the bus from the left side door, releasing the student's one (1) seat at a time.
9. The driver should then check the bus to determine that everyone has evacuated then exit through the left side door.
10. Walk to the front of the bus, with traffic to ensure that there are no students alongside the bus and then join the students at the designated location.

FRONT AND LEFT SIDE DOORS

Half of the passengers exit through the front door and half exit through the left side door.

1. The driver should give the command "emergency bus evacuation, remain seated, front-side door."
2. The driver should open the front door and then stand between the first occupied seats, facing the front.
3. Direct the helper(s) to take position outside the front door to assist those leaving the bus.
4. A leader should be appointed to lead the children in a safe direction (to be determined by the driver) at least one hundred feet (100') away from the bus.
5. Starting with the right seat, begin evacuating by backing toward the rear of the bus while releasing the pupils one (1) seat at a time alternating from right to left until all students riding in the front portion of the bus are evacuated.
6. At that point, the driver should open the left side emergency door and check traffic to determine there is no other moving traffic present which would create a danger to exiting passengers.

7. Two (2) helpers should be placed on the ground to assist passengers as they evacuate the bus.
8. Another leader is appointed to lead the passengers around the bus toward the rear, facing traffic to a designated location where they will join the passengers from the front of the bus.
9. The driver resumes the evacuation, backing towards the rear of the bus releasing the remaining passenger's one (1) seat at a time by the right-left side method until all the passengers have evacuated the bus.
10. After the bus is empty, the driver will check to determine that everyone is off, the driver should then exit the front door.
11. The driver should walk around the bus to ensure that no one is standing alongside the left side of the bus and then join the students at the designated location.

REAR AND LEFT SIDE DOORS

Half of the passengers exit through the rear and half exit through the left side door.

1. The driver should give the command "emergency bus evacuation, remain seated, side door."
2. After the driver announces a rear-side door evacuation, the driver should proceed to the rear emergency door and open the rear door.
3. Two (2) helpers should be placed on the ground to assist passengers as they evacuate the bus.
4. A helper should be appointed to lead the children in a safe direction (to be determined by the driver) at least one hundred feet (100') away from the bus.
5. The driver should then start evacuating the passenger's one (1) seat at a time beginning with the left rear seat first and alternating left and right seats until the driver who is backing towards the front of the bus reaches the halfway point.
6. At that point, the driver should open the left side emergency door and check traffic to determine there is no other moving traffic present which would create a danger to exiting passengers.
7. Two (2) more helpers should be placed on the ground to assist passengers as they evacuate the bus.

8. Another leader is appointed to lead the passengers around the bus, toward the rear, facing traffic to the assembly point where the rear half of the passengers are located.
9. The driver resumes the evacuation, backing towards the front of the bus releasing the remaining passenger's one (1) seat at a time using the left-right side method until all the passengers have evacuated the bus.
10. After the bus is empty, the driver will check to determine that everyone has been evacuated, the driver should then exit the left side door.
11. Walk to the rear of the bus, facing traffic to ensure that there are no students alongside the bus and join the students at the designated point.

FRONT, REAR AND LEFT SIDE DOORS

Passengers exit through the front, rear and left side doors. In this type of evacuation, the passengers in the front eight (8) seats exit the front door. The passengers in the next six (6) seats or seven (7) seats exit through the left side emergency door and the rear eight (8) seats exit through the rear emergency door.

1. The driver gives the command "emergency evacuation, remain seated, front, rear and side door".
2. The driver should open the front door and then stand between the first occupied seats, facing the front.
3. A helper should be appointed to take position outside the front door to assist those leaving the bus.
4. A leader should be appointed to lead the children in a safe direction (to be determined by the driver) at least one hundred feet (100') away from the bus.
5. Starting with the right seat, begin evacuating by backing toward the rear of the bus while releasing the pupils one (1) seat at a time alternating from right to left until all students in the front eight (8) seats are evacuated.
6. At that point, the driver should open the left side emergency door and check traffic to determine there is no other moving traffic present which would create a danger to exiting passengers.
7. Two (2) helpers should be placed on the ground to assist passengers as they evacuate the bus.

8. Another leader is appointed to lead the passengers around the bus, toward the rear, if safe, facing traffic to the assembly point where the passengers from the front are located.
9. The driver resumes the evacuation, starting with the seat next to the left side door and the seat across from the side door. As the driver is backing towards the rear of the bus releasing the remaining passenger's one (1) seat at a time by the left-right side method for five (5) more seats depending on bus size.
10. The driver should then proceed to the rear emergency door and open it.
11. Two (2) helpers should be placed on the ground to assist passengers as they evacuate the bus.
12. A leader should be appointed to lead the children in a safe direction (to be determined by the driver) at least one hundred feet (100') away from the bus.
13. The driver should then start evacuating the passenger's one (1) seat at a time beginning with the left rear seat first and alternating left and right seats until the driver who is backing towards the front of the bus until the rest of the bus is evacuated.
14. After the passengers are clear, the driver returns to the front of the bus ensuring all passengers are off and exits the front door.
15. The driver then walks off around to the left side of the bus, facing traffic, to ensure no one remains alongside of the bus and then joins the passengers at the designated assembly location.

Only the evacuation procedures listed above, excluding the side windows, roof hatches and windshield, should be practiced by the local school districts during the four (4) annual evacuation drills.

During an emergency, if no door can be used, everyone exits through the side windows, windshield or roof hatches.

In an emergency a driver may become incapacitated and need help in the evacuation process. At the beginning of each school year, the driver should choose two (2) or three (3) dependable pupils for helpers (these are not pupil monitors). Written consent from the parent should be obtained before assigning a pupil as a helper.

The helpers should be instructed in how to:

1. Take control and stop the bus if something happens to the driver.
2. Turn off the ignition switch and set the parking brake.
3. Open the service and emergency doors.
4. Assist the other passengers in exiting the bus. One helper should stay inside the bus to keep everyone calm and direct them to the exit they should use. Another helper should be outside the bus to assist exiting passengers and direct them to a safe assembly area.
5. Operate the fire extinguisher.
6. Use the emergency warning devices.
7. Give basic first aid.
8. Summon help.

EMERGENCY EVACUATION DRILLS

In an emergency, it is possible for children to jam the emergency door by all trying to get out of the door at the same time. To help avoid this situation, school administration is required to organize and conduct emergency evacuation drills for all pupils. Students need to learn to follow the driver's instructions, therefore it should be the driver giving the instructions to the students, not an administrator or teacher. These drills should be conducted at least four (4) times during each school year. The required time to conduct these drills are: the first full week of school; the first full week of the second semester; and the other two (2) drills within the school year, preferably one in the late fall and one in the early spring.

In the interest of safety, all drills should be planned in advance with the school administration. The age levels of the pupils should be considered in the planning. An evacuation should be completed in under two minutes.

A school bus can be fully engulfed in smoke and fire in 3-5 minutes. It is important that all students understand their role anytime they are on the bus.

1. All drills should be supervised by the principal, or by persons assigned by the principal, to act in a supervisory capacity. The driver is the person who should administer the drill(s).

2. The driver should have a briefing session with his/her helpers before the drill. Go over the drill procedures with them and make sure they understand what to do.
3. All pupils should be carefully informed about the drill. They should know what to do during the drill or in a real emergency. Never have surprise school bus evacuation drills.
4. Drills should be held on school property and not on bus routes.
5. The driver should stay on the bus during the drill and follow these steps:
6. Stop the bus, set parking brake, turn off engine and remove the key.
7. Stand and open the door, face the passengers and get their attention.
8. Give the command for the evacuation: “Emergency drill, remain seated”, then give one of the following:
    a. “front evacuation”
    b. “rear evacuation”
    c. “front-rear evacuation”
    d. “side evacuation”
    e. “front-side evacuation”
    f. “rear-side evacuation”
    g. “front-rear-side evacuation”
        i. Procedures:
        ii. Pupils should be shown how the emergency door operates and they should be told not to open the door until the driver has given the command to do so.
        iii. Care should be given to small children while exiting the emergency door. They can lower themselves to a sitting position with feet outside the door, then drop to the ground.
        iv. A gym mat may be placed beneath the door during the drill and a helper should assist the pupils as they exist.

The types of bus drills should be varied. Do not permit children to take lunch boxes, books, etc., with them when they leave the bus – getting the pupil off safely in the shortest time possible and in an orderly fashion is the objective of a school bus evacuation. The pupils should go to a

distance of at least one hundred feet (100') from the bus away from traffic in an evacuation drill and remain there in a group until given further directions by the driver or assigned pupil.

All pupils should participate, including those children who do not ride the bus on a daily basis. Each pupil should be instructed in the proper safety precautions while riding the bus and in evacuation drill procedures. Instruct pupils how and where to get help. Instructions and telephone numbers should be posted or otherwise carried on the bus. Every step of an evacuation should be carried out, including placing the reflectors at the proper distance from the bus. Since the driver is an active participant in the drill, the principal or some other school official should observe the drill. After the drill, the driver and the observer can advise the pupils of improvements to be made and tell them of the job well done.

EMERGENCY EQUIPMENT

You should know the exact location and operation of the emergency equipment on the school bus. These include the reflectors, hazard flasher, first-aid kit, fire extinguisher, and body fluids clean-up kit. All Kentucky school buses must contain these items and they shall be checked during the pre-trip inspection.

REFLECTORS

There are three (3) reflectors located on your bus. These can be used at night or in the daytime. Find the location of these and make sure they are on the bus. Follow the directions previously discussed for their placement.

HAZARD FLASHERS

The switch to activate the hazard flashers is located on driver panel, the steering column, the turn signal arm, or the dash panel. Good judgment should be used when turning on the hazard flashers. They should only be used to warn traffic or in a dangerous situation.

FIRST-AID KIT and HAZARDOUS BODY FLUIDS CLEAN-UP KIT

All items used from the first-aid kit should be replaced immediately. The first-aid kit is located in the driver's compartment. Most of the items in the first-aid kit are used to control bleeding.

Three (3) primary first-aid kit items are to restore breathing, stop bleeding, and/or prevent shock.

HAZARDOUS BODY FLUIDS CLEAN-UP KIT

All items used from the clean-up kit should be replaced immediately. The clean-up kit is located in the driver's compartment. This kit is used to clean up blood, vomit, urine, or other bodily fluids. The primary clean-up kit items are rubber gloves, eye shield and face mask, absorbent beads, and biohazard disposal bag.

FIRE EXTINGUISHER

All Kentucky school buses are required to have a 3A-40-BC fire extinguisher. 3A means it will extinguish three (3) square feet of a Class A fire. The 40 BC rating means it is large enough to extinguish a Class B or C fire covering forty (40) square feet of surface.
Class A fires are of ordinary combustible material such as wood, paper, textile fabrics, rubbish, etc. A Class B fire is a chemical fire which would include flammable liquids such as gasoline, oil, paints, grease, etc. A Class C fire is an electrical equipment fire where the use of a "non-conductor" extinguisher agent is of high importance.

The fire extinguisher gauge should be checked daily to see that it has adequate pressure. If the indicator needle is in the red area, the extinguisher should be replaced with one that is properly charged. Regardless of the extent of use, should be recharged or replaced with a substitute immediately after use. Do not use the bus until the fire extinguisher has been replaced. You never want to drive a bus that has a fire extinguisher that has been used, expired, or needs recharging. You never know when you will need it.

To operate the fire extinguisher:

1. Remove the fire extinguisher from the bracket.
2. Hold the extinguisher in an upright position so that all the powder in the extinguisher will be available for use.
3. Pull the safety pin by breaking the seal.
4. If possible, stand upwind from the burning material to prevent standing in smoke and heat.

5. Squeeze the handle to discharge the powder. Turn on and off to control the fire.
6. With nozzle in hand, aim powder at base of fire. The idea is to smother the fire and allow no oxygen to reach the flame. On oil or gasoline fires, it is better to use a sweeping motion with the extinguisher.

The three (3) most common areas where fires occur in a school bus are:

- Under the hood, which can be a fuel and oil fire, electrical fire, or a combination of both;
- Electrical fire under the dash or in the console; or
- A fuel fire in the area of the fuel tank.

DRIVER LIABILITY FOR PUPIL INJURIES

A driver can be liable for injuries to school children caused by negligence. Courts have held that four (4) essential elements for negligence must be present:

1. your legal duty to conform to a standard of conduct for the protection of others against unreasonable risks;
2. your failure to conform to the standard;
3. a reasonable close connection between your conduct and resulting injury; and
4. actual loss of damage of the interests of another.

The considerations that most courts use in determining driver negligence are:

1. The degree of care a driver must use ranges from “ordinary” and “reasonable” to “extraordinary” and highest degree”, and depends on their type of duty. Courts tend to require more care when younger children are involved.
2. Children, ages ten (10) or eleven (11), are generally considered capable of recognizing traffic dangers.
3. The driver and the district are accountable for maintaining a safe vehicle.
4. In incidents occurring while boarding and leaving a bus, factors or “reasonable care” and “safe places” determine negligence.
5. A driver is expected to keep order on a bus and may use any of the normally accepted procedures.
6. A driver is not automatically guilty of negligence if injury occurs. The driver can refute

charges with proof that proper care was used.

7. A driver may be held liable for “his/her” actions separate from the district’s liability.
8. Negligence is determined by a jury.

SCHOOL BUS INCIDENT REPORTING

As a school bus driver, you are required to report any and all incidents, even minor, to your director or their designee. Incidents involving serious student injury or fatality or failure of safety equipment shall be reported to KDE immediately. You must follow your school districts procedures for reporting. This data is reported to the state and used for annual training and federal reporting.

CHAPTER 5

VEHICLE OPERATIONS

OBJECTIVES:

To enable the driver to:

- Understand the correct procedures for safely and efficiently driving a school bus.
- Evaluate the drivers' ability to handle a school bus.

To enable instructors to:

- Evaluate the drivers' knowledge of school bus operations.
- Give drivers the needed practice to enable them to operate a school bus safely and efficiently in accordance with applicable laws and regulations.

Drivers will demonstrate their ability to apply all the knowledge and skills gained during the instructional phase of this unit by successfully completing the over-the-road test with a minimum proficiency of 80%.

RURAL DRIVING SKILLS

The first actual on-street driving is in a rural area and the emphasis is placed upon interacting with other vehicles. In addition to know how to operate and maneuver the bus, a bus driver will be expected to demonstrate and explain the “thinking processes” that are involved in rural driving.

BACKING – ONLY WHEN NO OTHER ALTERNATIVE EXISTS

The driver must learn to back into a given space without scraping or hitting stationary objects. In backing a school bus, steps are:

1. Stop bus in correct position to back.
2. Check mirrors.
3. Assure that area is clear.
4. Secure visual assistance if possible.
5. Apply brake.
6. Shift to reverse.
7. Tap horn lightly, if there is no backup alarm.
8. Release brake.
9. Gradually and slowly move.
10. Steer wheel as necessary.
11. Use mirrors to monitor the direction of the bus.

Several techniques for backing which the driver should use are:

- Physically get out and check behind the bus.
- Use helper assistance, if possible.
- For straight backing, hold the steering wheel in 10/2 or 9/3 position.
- Hand-over-hand steering for either right or left backing.
- Back slowly.
- Use side mirrors.
- Use the inside rear view mirror when possible.
- Use crossover mirrors for obstructions (not distance judgement).
- Keep eyes moving to all five (5) mirrors.
- If still unsure while backing, stop and check outside again.

FOLLOWING DISTANCE

- The “space cushion” is four (4) seconds up to forty (40) mph. Add one (1) second if traveling over forty (40) miles per hour.
- Look ahead twelve (12) to fifteen (15) seconds. By scanning the road that far ahead, trouble can be seen well in advance and can often be avoided.
- Adjust following distance when increasing speed, driving on wet or icy road, driving at night, or during weather conditions that adversely affect the driver’s ability to see the

roadway and traffic conditions ahead.

- If at least four seconds have passed before the front of the bus has reached the same object that the vehicle in front of you just passed, a proper following distance is being maintained if driving 40 mph or slower. The five (5) second following distance should be used if driving over 40 mph.

Remind the driver to:

- **Stay alert.** Watch for signs from the driver ahead as to what he intends to do.
- **Stay ahead of the situation**. Look beyond the driver ahead to see situations that may force him to act quickly and thereby become a threat to you.
- **Start slowing sooner.** Slow down and touch your brakes the instant you see a hazard developing that may require you to stop or take evasive action.
- **Stay away from other vehicles.** Do not travel next to or close to any other vehicle(s), person(s) or obstacle(s) at any time unless it is absolutely necessary.

BEING FOLLOWED

1. Signal intended maneuvers.
2. Check mirrors frequently.
3. Watch for indications that following vehicles intend to pass.
4. Observe roadway ahead to anticipate the need to stop.
5. Use the minimum four/five-second following distance method for Kentucky school buses.

TURNING

There are some general procedures for turning the school bus which all drivers must know and utilize. Get into the proper lane and use turn signals early.

When turning right school buses must have curb clearance for the rear wheels. Stay close enough to the right curb to block anyone from passing on the right. There are two (2) procedures that may be used in executing right turns. Regardless of the method used, the school bus driver must remember that the responsibility for making a safe turn rests with them.

1. Approach the corner in the right lane, about four feet (4') from the curb. The bus should

be close enough to the curb to keep a car from passing on the right. As soon as the front wheels pass the corner, turn wide to the right, swinging over the center of the side street if necessary, in order for the right rear wheels to clear the curb. (It is not recommended to cross the side street center lane marking.)

2. When the street onto which the turn is to be made is narrow, the turn may require the same approach as above, but then, steer left far enough to place the right rear wheel in position to miss the curb, but not far enough away to invite passing on the right.

In preparing for turns, the driver must:

- Check traffic at the front, sides and rear of the bus.
- Give proper signals to move the school bus into the proper lane for turning.

When making turns, the driver must:

- Give the proper turn signal.
- Reduce speed and before turning, downshift to the proper gear needed to safely execute the turn.
- Check for a clear right-of-way to ensure that traffic signals give the right-of-way to you, watch for pedestrians, traffic control signs and other vehicles. Use all outside mirrors to check around the bus.

To properly execute the turn, the driver must:

- Make the turn smoothly without a strain on the engine.
- Never shift gears during a turn.
- Check mirrors before and while executing a turn.
- Enter the proper lane and check the turn signals for cancellation.
- Steer the wheels back into position by using the hand-over-hand recovery technique.

RIGHT TURN

1. Give the proper right hand turn signal.
2. Reduce speed and, before turning, downshift to the proper gear needed to execute the

turn.

3. Position the bus to the right edge of the lane.
4. Check for a clear right-of-way.
5. Check traffic signals, signs, pedestrians and/or other vehicles.
6. Use both outside mirrors.
7. Make the turn smoothly without any strain on the engine.
8. Never shift gears during a turn.
9. Check the right and left mirrors while executing the turn. This will enable you to check your pivot point while turning.
10. Enter the most available right lane and check turn signal for cancellation.
11. Steer the wheels back into position by using the hand-over-hand recovery technique, unless the bus is equipped with a non-tilt lap wheel.

LEFT TURN

1. Give the proper left hand turn signal.
2. Reduce speed and downshift, if needed.
3. Position the bus to the left edge of right most outer turning lane.
4. Check for a clear right-of-way.
5. Check traffic signals, pedestrians or other vehicles.
6. Use both outside mirrors.
7. If required to stop, keep front wheels straight and brake pedal depressed. This will prevent drifting and activate the brake lights and also prevents being shoved into the line of approaching traffic if you were to be struck in the rear.
8. Drive into the intersection and make the turn smoothly, without strain on the engine.
9. Check the left and right mirrors while executing the turn.
10. Never shift gears in a turn.
11. Enter the roadway by following through and check the turn signal for cancellation.
12. After completing a left turn upon a multiple-lane highway/street, pick up speed, activate right turn signal and move into the right lane as soon as it is safe to do so.

TURNAROUND – TWO POINT TURNAROUND

1. Give the proper turn signal and tap brakes well in advance of turnaround.
2. Stop the bus in the proper position on the roadway – one (1) bus length ahead of road to be backed into.
3. Check traffic – front and rear.
4. Visibility should be excellent in all directions.
5. Have traffic move around the bus, if possible.
6. Tap horn lightly, if there is no backup alarm.
7. Back into the roadway or driveway, using outside mirrors.
8. Check traffic and re-enter the roadway with caution, after proper signaling.

LANE SELECTION

Turning left from:

- Two-way roadway onto a two-way road with two (2), four (4) or six (6) lanes.
- Two-way roadway onto a one-way road.
- One way onto a two-way road.
- One way onto another one-way road.
- Two-way onto a three lane two-way road.
- Three lane, two-way onto a two-lane two-way

Turn right from:

- Any type of roadway onto any type of roadway.

MERGING

Care must be used when the driver leaves the bus compound and begins the route. Smooth entry into the flow of traffic is vital for the safe operation of the school bus. School buses should travel in the right lane whenever feasible.

Drive in the right lane of the roadway except:

- When overtaking and passing another vehicle moving in the same direction; or
- When the right lane or roadway is closed to traffic due to construction or repair.
- Follow posted traffic signs for appropriate lane usage.
- When it is safer to travel in the left lane (for short distances).

Follow these steps to accomplish a smooth entry into the flow of traffic at a stop:

1. Stop at point of entry into the traffic flow.
2. Activate right or left turn signal.
3. Look to determine that there are no pedestrians in the path of the bus.
4. Check the mirror to determine that all passengers are seated.
5. Look to the right and left to determine whether there are vehicles in motion on the roadway to be entered.
6. Yield right-of-way to vehicles already on the road.
7. Look for a suitable gap in traffic and when safe, accelerate smoothly into the road, utilizing the turn signal to establish lane position.

MERGING STEPS

1. Observe traffic to the front and rear.
2. Look for a gap in rear approaching traffic.
3. Yield the right of way to all vehicles and pedestrians.
4. Activate the turn signal.
5. Accelerate smoothly into a gap in the traffic lane.
6. Straighten steering wheel.
7. Check to see that the directional signal has been canceled.
8. Accelerate quickly to the speed of traffic.

MERGING PROCEDURE

When approaching an entrance ramp, observe information signs indicating correct lane or ramp usage, speed, lights, and warning.

APPROACHING ENTRANCE

- Check for an acceleration lane at the end of the entrance ramp.
- Check for an exit ramp that shares a portion of the entrance ramp.
- Observe entrance ramp/main roadway configuration to aid in judging merging distance and pattern.
- Check mirrors carefully.
- Glance back briefly and quickly over the left shoulder to check the location and speed of traffic on the main roadway.
- Check the location and speed of vehicles on the entrance ramp acceleration lane.
- Make an initial speed adjustment based on entrance ramp/roadway configuration and traffic conditions.
- Prepare to enter the acceleration lane.

ENTERING

1. Check mirrors.
2. Signal intention to merge.
3. Glance back to check for a gap in the merging lane. (If merging from right, glance over the left shoulder.)
4. Adjust speed as necessary to merge safely.
5. Try to maintain the same speed as the traffic with which you are merging.
6. Recheck traffic in the merging lane with mirrors and head check.
7. Merge with traffic.
8. Adjust speed to traffic.

APPROACHING EXIT

1. Look for the correct exit.
2. Check mirrors.
3. Move into the proper lane.
4. Watch for a deceleration lane.
5. Check mirror.
6. Signal intention to turn.

EXIT

1. Reduce speed on deceleration lane, not before, if possible, to do so.
2. Watch for an exit ramp speed limit sign.
3. When the deceleration lane is part of the acceleration lane, watch for entering vehicles.
4. Observe speed limit signs.
5. Drive in the center of the appropriate lane and stay clear of barriers.
6. Watch for other vehicles changing lanes.
7. Observe signs on cross roadways, giving information on alternate destinations.
8. Check speed.
9. When nearing the end of the exit ramp, slow down and prepare to stop. Watch for traffic that may be stopped or waiting in line at the end of the ramp.

CURVES

- Approach curves at speeds that will enable the curve to be negotiated safely.
- Observe roadway ahead for signs indicating maximum safe entering speed.
- Reduce speed, if necessary, to attain posted limits.

ENTERING AND DRIVING THROUGH A CURVE

1. Look well ahead to anticipate the need for steering conditions and do regular traffic checks surrounding the vehicle.
2. Maintain a position within your lane (not change or "cut across" lanes).
3. Maintain speed throughout the curve by keeping slight pressure on the accelerator. Don't increase speed in a curve.
4. Reduce speed by releasing the accelerator and applying the brakes lightly.
5. Always brake before a curve:
    a. Whenever initial speed proves too great for rate of curvature, or
    b. Whenever visibility is restricted by darkness, fog, vegetation or other obstructions.

LEAVING A CURVE

Resume original or other safe speeds.

- A driver may accelerate coming out of a curve. This is called "blowing out" of a curve;

however, this should be done on a conservative basis just gradually accelerate out of the curve.

PROCEDURES

UPHILL

1. Select the far right lane or auxiliary climbing lane, if available.
2. Maintain constant speed on upgrades by: Applying accelerator pressure and shifting to lower gear if necessary.
3. When approaching crest on a narrow roadway, keep as far to the right as safely possible.
4. Slow down slightly when approaching crest to compensate for limited sight distance and for an anticipated increase in speed upon reaching crest.

DOWNHILL

1. Look for signs indicating length and/or gradient of downgrade.
2. Shift into the proper gear before beginning a long and/or steep downgrade.
3. Maintain constant speed on downgrades by reducing accelerator pressure.
4. Apply brakes, using the target speed/on again off again method.
5. When vehicle reaches the bottom of downgrade, resume normal driving speed.

EXITING TRAFFIC

1. Scan roadside for suitable place to stop.
2. Observe shoulder for obstructions (trees, poles, sign posts).
3. Look for spot with no obstructions where vehicles can be seen by traffic in all directions.
4. Check mirrors.
5. Signal intention to leave traffic stream.
6. Reduce speed.
7. Guide school bus gradually off the roadway.
8. Try not to make quick, abrupt movements.
9. Brake gently to a complete stop, if called for.

PASSING

Typically school bus driver should not have to pass another vehicle, however, it might become necessary and should be done correctly, safely and legally. There is nothing wrong with passing for the right reasons, but it isn't likely to save time. Passing entails risk. The best rule is: "When in doubt, don't."

Before a driver changes lanes, check west coast and fender mirrors and "glance back" to make sure blind spots are clear. Use lane change signal. Move over only when the lane is clear. Proper order is 1) signal; 2) mirrors; and 3) glance. DO NOT STARE.

REMEMBER – SAFETY FIRST… SCHEDULES SECOND!

DO NOT PASS if the vehicle ahead is:

- signaling or otherwise indicating a turn
- changing lanes preparatory to passing
- weaving or wandering
- decelerating suddenly
- passing children, cyclist(s) or animals
- being passed by another vehicle

PASSING PREPERATION

1. Decide if the pass is necessary.
2. Make certain that you have maintained a safe following distance.
3. Check traffic ahead. If the bus and an oncoming vehicle are both traveling at 55 mph, the gap is closing between vehicles at the rate of 1.8 miles per minute. Since it takes a minimum of ten (10) seconds to complete a pass, the oncoming vehicle should be at least one-half of a mile away.
4. Using rear-view mirrors, check to be sure that traffic following a bus is clear for passing. On a two-lane road, check for oncoming traffic and traffic signals. Bus drivers should have a minimum of fifteen seconds visual lead time to activate turn signals well in advance of passing.

PASSING PROCEDURE

1. Move into passing lane, endeavor to maintain a constant speed.
2. Check for clearance and signal before returning to original lane.
3. Move into original lane.
4. Cancel turn signal.
5. Check mirrors upon completion.
6. Maintain safe and authorized speed.

PASSING ON LEFT IS PERMITTED

- When overtaking other traffic moving in same direction where passing is allowed and safe.
- When right half of road is blocked. Yield to oncoming traffic.
- When using a street with two or more lanes for one-way traffic, and when there is slower traffic in right lane.

PASSING ON LEFT IS PROHIBITED

- When approaching crest of a hill on a two-way roadway or a curve in highway where the driver's view is obstructed.
- When view is obstructed upon approaching within 100 feet of any bridge, viaduct or tunnel.
- When there is oncoming traffic close enough to be a danger.
- When there is a solid line in your lane.
- When there is a no passing sign.

PASSING ON RIGHT IS PERMITTED

- When vehicle being overtaken is making a left turn if you do not leave the existing roadway.
- When two or more lanes of traffic are moving in the same direction.

PASSING ON RIGHT PROHIBITED

- When passing movement causes vehicle to drive off of pavement or main traveled

portion of the existing roadway.

- You should not leave the existing roadway to pass on the right.

BEING PASSED

When the bus is being passed, the driver has a condition which could contribute to a very hazardous situation. The possibility for a potentially dangerous incident exists. The bus driver could be in a head-on collision, sideswiped, or run off the road. Other vehicles can pass you in a number of ways.

- They can overtake and pass you on a straight road – a normal passing situation.
- They can pass you as you are pulling out of a parking space.
- They can attempt to pass just as a driver moves out to pass another vehicle.
- They can pass on the right, which is legal on multi-lane roads or on one-way streets if they do not leave the roadway, but a driver still has the responsibility for preventing an incident.

There are several things a driver must do to make the act of being overtaken and passed a very safe one.

- When there is no possible hazard, stay in the right hand lane and maintain speed.
- Help the other driver pass.
- Check for oncoming traffic.
- Slow down if the passing vehicle will need more room to get back in line in.
- When another vehicle is also approaching from the opposite direction creating a hazard for the vehicle trying to pass, move the bus to the parking lane or leave the roadway if it seems that the passing vehicle cannot complete the pass before the oncoming vehicle reaches you, if safe to do so.

PROCEDURE

1. Maintain position in center of lane, or move slightly to right, if possible.
2. Maintain or reduce speed – do not accelerate.
3. Watch for signals that the passing vehicle plans to cut back in front of the bus.
4. Turn signal flashing

5. Driver looks back over shoulder.
6. Front wheels begin to angle back to right.
7. Prepare to slow down to provide larger space for passing vehicle to re-enter lane or to obtain additional following distance if vehicle cuts in after passing.

URBAN DRIVING

There are many hazards a driver encounters during urban driving. They include more traffic congestion, pedestrians, and busy intersections. Along with these a driver must be aware of the paces between parked vehicles through which pedestrians and animals may dart into street. Parked vehicles may suddenly move into path of the bus or occupants of parked vehicles who may suddenly open doors. With more people on the road and pedestrians, there is always a chance of someone or something crossing the road in front of the driver. Defensive driving skills are extremely important with urban driving.

Some indications that a vehicle is going to be moving are:

- Exhaust fumes coming from a vehicle.
- Back up or brake lights on.
- Front wheels are turned toward the traffic lane.
- Driver is looking back over shoulder.
- Turn signal flashing.
- Any movement from the direction of the vehicle.
- Techniques to remember are:
- Maintain a reasonable speed.
- Maintain your lane position, leaving a reasonable clearance between bus and parked vehicles.
- Be ready to stop.
- Change lanes if necessary.
- Look for a place to steer away from the obstacle.

ONCOMING TRAFFIC

- Maintain your position to right of centerline.

- Observe the roadway for slow moving traffic, which might force oncoming vehicles to cross the centerline.
- Take in the whole picture.
- Be prepared to stop.
- Look for a place to steer away from the obstacle.

YIELDING

- Yield to any vehicle that is already in the intersection.
- When reaching an intersection at the same time as another vehicle, yield to the vehicle on the right.
- When approaching a yield sign, slow down to a reasonable speed and yield the right-of-way to any vehicle in the intersection and to approaching traffic.
- When merging at a stop intersection, stop and yield the right-of-way to any vehicle in intersection and to approaching traffic.
- When merging onto a main highway, with or without signs, yield to any vehicle close enough to be an immediate danger.
- When making a left turn, yield right-of-way to oncoming traffic.
- Stop and then yield the right-of-way.
- When entering a highway from an alley, private road or driveway.

EMERGENCY VEHICLES

Yield to emergency vehicles that are sounding a siren and/or flashing warning lights by turning as far as possible to the right and stopping. Generally, a driver should never turn left.

INTERSECTIONS PROCEDURE

REGULATIONS

- If an officer and the traffic control devices are in conflict, follow officer's directions.
- Prepare to stop if the light is red, flashing red or yellow.
- Proceed with caution although ready to stop if light is flashing yellow.
- Slow down and prepare to stop if traffic light is changing from green to yellow.

- Proceed through intersection when light changes from green to yellow, if stopping would cause conflict with following vehicles. However, your bus should clear the intersection before the light turns red. If in doubt, do not proceed.
- Slowdown in preparation for stopping at an intersection controlled by a stop arm.
- Slow down sufficiently to stop, if necessary, at an intersection controlled by a yield sign and proceed cautiously only when intersection is clear.

PRECAUTIONS

- Observe oncoming traffic for an indication of a left turn and prepare to stop quickly if oncoming vehicle suddenly makes a left turn.
- Reduce speed to enable left-turning vehicle in intersection to complete turn, and be ready to stop if the vehicle does not complete the turn.
- Observe path ahead of a left or right turning vehicle to anticipate a forced stop by turning vehicle.
- Slow down or stop to permit a vehicle approaching from right to clear intersection if vehicle is close and rapidly approaching intersection.
- Observe path of vehicle approaching from right to anticipate vehicle entering intersection
- When vehicle approaches from left and the bus is on a major road, observe other vehicles for an indication of slowing down and prepare to stop if the vehicle on the left does not yield right-of-way.

INTERSECTION APPROACH

If unable to enter correct lane for a turn, proceed to the next intersection.

When approaching an intersection:

- slow-down in sufficient time to avoid stopping in the intersection or on crosswalk; and
- observe signs providing lane information and enter the correct lane as early as possible, but no later than 100 feet before reaching intersection.
- When intending to turn:
- enter outer right lane for a right turn or outer left authorized lane for a left turn, unless otherwise directed;
- check mirrors; and

- signal intention to turn as soon as possible without causing confusion, but no later than 100 feet before reaching intersection unless it would confuse the motoring public.

PROCEEDING THROUGH INTERSECTIONS

- When light changes from red to yellow, do not anticipate green light by moving on yellow light. Wait until light has changed to green before starting.
- Enter intersection, after checking for cross traffic, if light is green or flashing yellow.
- Come to a complete stop before proceeding through intersection if there is a flashing red light.
- If green arrow governs the lane, proceed only in direction indicated by arrow.
- When intersection is controlled by a stop sign, come to a complete stop, proceeding only when it will not interfere with cross traffic.
- When encountering a "yield" sign, proceed only when it will not interfere with cross traffic.

PROCEDURE

1. Be ready to stop.
2. Observe path of traffic ahead to anticipate any stops and prepare to stop should the lead vehicle stop suddenly.
3. Stop if oncoming traffic suddenly makes left turn across path of bus.
4. Observe traffic from left. If a vehicle signals for a right turn, do not pull out until the vehicle begins to turn.
5. Observe traffic from right before entering an intersection and enter only when safe passage is assured.
6. Slow down and proceed cautiously if pedestrians are near the corner, yielding right- of-way or stopping if pedestrian enters street.
7. Observe oncoming traffic preparing to turn left and prepare to stop should a left turn be initiated.
8. It is recommended that a school bus driver NEVER signal another to proceed.

OFF-STREET AREA ON LEFT PROCEDURE

1. Check mirrors for traffic flow.
2. Signal for left turn.
3. Position bus in lane just to right of center line or in left turn only lane.
4. Keep your wheels straight ahead.
5. Yield to oncoming traffic.
6. Watch for other traffic entering or exiting off- street areas.
7. Check mirrors for rear traffic and passing vehicles.
8. Check right mirrors to ensure that pivot point of bus will clear object on right.
9. Complete turn.
10. Maintain safe entrance speed when turning into off-street area entrance.
11. Stop only after bus is completely through entrance way and well off main roadway.

OFF-STREET AREA ON RIGHT PROCEDURE

1. Check mirrors for traffic flow.
2. Signal for turn.
3. If intending to turn into off-street area, immediately beyond an intersection, activate turn signal when halfway through intersection so that vehicles do not interpret signal as an indication to turn at intersection. Signal for the benefit of other drivers. You know where you are going. They do not.
4. Position vehicle in appropriate lane.
5. Look for signs or entryway marking indicating direction of travel.
6. Adjust position of bus to provide proper clearance for entering off-street area.
7. Check right mirror for passing vehicles and obstructions.
8. Check left mirrors to ensure that pivot point of bus will clear object on left.
9. Complete turn.
10. Maintain safe entrance speed when turning into off-street area entrance.
11. Stop only after bus is completely through entrance way and well off main roadway.

INTERSECTION – TURN RIGHT

Both the approach for a right turn and a right turn itself shall be made as close as practical to the

right curb or edge of roadway. (For school buses, this is the far left side of the right turn lane – watch pivot point). Vehicular traffic facing a steady red signal, after stopping before entering the crosswalk or stop line, shall not make a right turn on a red light from a one-way or two-way street into a two-way street or into a one-way street carrying traffic in direction of the right turn. The vehicular traffic shall yield right-of-way to pedestrians lawfully within an adjacent crosswalk and to other traffic lawfully using intersection.

When making a turn, use hand-over-hand technique and turn the steering wheel all the way to the left, if needed. Steering recovery should be done using hand- over-hand technique.

RIGHT TURN PROCEDURE

1. Check mirrors.
2. Signal intention to turn well in advance of turn.
3. Both the approach for a right turn and the right turn itself shall be made as close as practical to the left edge of the right turn lane.
4. Observe traffic controls before attempting to make right turn.
5. Check cross traffic on your bus's left and if there is a line of traffic, wait for a gap of sufficient size before proceeding.
6. Check cross traffic to right to make sure vehicles are blocking passage in intended lane.
7. Check right arrow.
8. Enter travel lane nearest curb, turning sharply enough to avoiding blocking the left lane.
    a. When making turn, use the hand-over-hand technique and turn the steering wheel all the way to the right, if needed.
    b. Avoid shifting gears or using hands for any other activities other than steering while turning.
9. Check mirrors for clearance of right rear duals as you turn.
10. Check mirrors on left to ascertain that pivot point is clear.
11. Accelerate slightly out of turn.
12. Steering recovery should be done using hand- over-hand technique (explain tracking).
13. After turn has been completed, check to see that directional signal has been cancelled.
14. Adjust vehicle speed to conditions.

INTERSECTIONS – LEFT TURN

To make a left turn, move into lane next to the center line or into "left-turn only" lane. On one-way street, enter the left (curb) lane. When turning into one-way street or highway, drive into lane to right of centerline. When turning into one-way street, turn into left lane.

Vehicular traffic facing steady red signal, after stopping before entering crosswalk or stop line, may legally make a left turn from a one-way on a one-way road carrying traffic in the direction of the left turn unless prohibited by sign, signal, marking, light or other traffic control device. For safety reasons, this is not recommended in a Kentucky school bus. Vehicular traffic shall yield the right-of-way to pedestrians lawfully within adjacent crosswalk and to other traffic lawfully using intersection.

PROCEDURE

1. Observe traffic controls before making turn.
2. Check mirrors.
3. Signal intention to turn well in advance of intersection.
4. Reduce speed of bus.
5. Check cross traffic and wait until there is a sufficient gap in traffic from left and right before proceeding to turn.
6. Observe traffic and pedestrians for clear way to make turn.
7. Yield to oncoming traffic.
8. Check right mirrors to make certain the pivot point is clear.

TRAFFIC CIRCLES

- Enter traffic circle in counter-clockwise direction, if appropriate.
- Yield to vehicles already in the circle.
- Remain in outer lane at a consistent speed.
- Maintain a slow speed.

TUNNEL OR BRIDGE

When going through a tunnel or over a bridge, slow down for better control. Remain to the right

to provide clearance with traffic in adjacent lane. Look for signs regarding:

- lane availability and usage
- clearance
- load limit
- speed limit and passing restrictions
- use of lights in a tunnel

TRAVEL THROUGH OR ACROSS

- Observe other traffic and lane side structures.
- Remove sunglasses in tunnel, if worn.
- Adjust speed to grade changes and observe speedometer frequently.
- Stop only if traffic flow required it or if emergency exists.
- Turn lights on in tunnel, if necessary.

EXITING TUNNEL OR BRIDGE

- Observe posted signs regarding exit information and speed limit.
- Turn off lights upon leaving tunnel during daylight hours.
- Be prepared for wind bursts when existing the tunnel.

LANE CHANGES

Lane changing is one of the most dangerous and difficult maneuvers that a driver can make. Change lanes only when absolutely necessary. The driver of any vehicle upon a highway, before stopping or turning from a direct line shall signal intended movement. Do not change lanes when prohibited by regulatory signs, or when solid yellow line is on your side of highway markings.

Some conditions determining lane changes are:

- When a lane is blocked by another vehicle.
- Collision, detour, or road construction, debris in the lane or road defects.
- Slow moving vehicles, cyclists, or pedestrians.

PREPARING FOR LANE CHANGE

1. Signal intention to change lanes.
2. Check mirrors to see if other vehicles are about to enter your new lane.
3. Check for vehicles in blind spots with convex (fender) mirrors.
4. Head check for blind spots (to left only).
5. Maintain constant, steady speed throughout lane change.

PROCEDURE

1. Turn steering wheel sufficiently to slowly enter new lane.
2. Position bus in center of new lane.
3. Check to see that directional signal is cancelled.
4. Check mirror upon completion.
5. Adjust speed to that of traffic in new lane.

RAILROAD CROSSING

State regulations and national guidelines are set to ensure a school bus properly crosses railroad tracks. In any situation where a train is going to come into contact with a school bus, the train will win. Safety procedures at all railroad grade crossings dictate that extreme care be exercised by school bus drivers. Crossing railroad tracks represents one of the greatest hazards for school buses. Mass casualties could occur in the event of a train-school bus incident. STOP, LOOK AND LISTEN are the keys. The safe and legal way to cross a railroad track must be automatic. All buses, loaded or empty, MUST STOP at all tracks, whether active or inactive, and specific procedures must be followed before crossing any railroad at grade level.

When drivers are making stops for railroad crossings, they shall carefully observe traffic and reduce their speed, far enough in advance of the stop, to avoid trapping other motorists in panic stops or rear end collisions with the bus. To aid motorists, lightly tap the brakes as they approach the crossing, four (4) or five (5) times and activate the four way flashers approximately 200 feet before the crossing, and stop 15-50 feet away from the tracks. Generally, on multiple lane roadways, no such stop should be made in the center or the left lane.

If the view of the track or tracks for a distance of one thousand feet (1000') in either direction is not clear, or obstructed in any way, no portion of the bus may be driven onto the tracks, until, by personal visual inspection, the driver has determined that no train is approaching. In no instance may a signal indicating safety be considered as conclusive or serve to override this precaution.

In the event that a train has passed over the crossing, no bus driver shall drive his/her bus onto the track or tracks until the train has sufficiently cleared the crossing so that the driver is certain that no train, hidden by the first train, is approaching on an adjacent track. For improved hearing, the window shall be opened and all noise equipment (fans, radio, etc.) should be shut off until the bus has cleared the crossing.

CROSSINGS CONTROLLED BY SIGNALS

In addition to the above-mentioned safety standards, the driver of a school bus that has stopped at any railroad track or tracks, at which there is (in operation) any flashing red lights and/or bell, shall not proceed across such track or tracks **UNLESS** authorized by a law enforcement officer or railroad representative. This does not relieve the driver of personal responsibility for safe crossing.

If switching operations, or stopped trains, delay the use of the crossing unnecessarily, frequently or over extended periods of time, complaints should be made through proper channels to railroad management and traffic authorities. Each crossing has a phone number and location listed on a sign at the crossing.

CROSSINGS CONTROLLED BY CROSSING GATE OR BARRIER

No bus driver shall drive their bus through, around or under any crossing gate or barrier at a railroad crossing while such gate or barrier is closed or being opened or closed. The driver must never accept a lack of movement as indicating that the device is either in or out of order or not properly working, but must always take a railroad grade crossing as a warning of danger and must not cross the tracks until he has ascertained that no train is approaching. The driver should treat multiple tracks as one (1) track only. Do not stop on the tracks and be sure to leave enough room if you have to stop after passing over the tracks. Add 15 feet to the length of the school bus

to determine an acceptable amount of containment or storage area crossing the tracks.

WEATHER CONDITIONS

During wet, stormy foggy, or any adverse weather, before placing part of the bus on the tracks, the driver must know that the crossing can be made safely. Any use of flares, in addition to warning signals or devices maintained at such railroad crossings, must be taken as an additional warning of danger.

BEHAVIOR OF PASSENGERS

When stopping for any railroad track at grade, all passengers must be silent until crossing is completed. Such signal for silence shall be given by the driver in a manner deemed suitable and appropriate. The passengers should understand the importance of their silence.

CROSSING PROCEDURE

The school bus driver will take the following steps in sequence each time he crosses a railroad track in a school bus. The easy way to remember is 5 Alive, as there are five steps to remember.

1. Approach with care. Slow down and prepare to stop.
    a. Tap the brakes at least four (4) or five (5) times when slowing.
    b. Activate the four-way flashers 200 feet before the railroad crossing.
2. Quiet
    a. Request silence.
    b. Turn off radios, fans, heaters, etc.
    c. Check traffic control devices.
3. Stop, look and listen
    a. Follow legal stopping procedure.
    b. Stop in a position that gives a clear view of the tracks in both directions. The front bumper must be no closer than fifteen feet (15') or further than fifty feet (50') from the track.
    c. Set the parking brake.
    d. Shift into neutral gear.
    e. Open the service door and driver's window.
    f. Look and listen through the open window and door.

4. Double Take
    a. Look again in both directions.
    b. Assess the containment area after the tracks to ensure there is enough room if the bus needs to stop after the tracks.
5. Go! - Do not switch gears while crossing. Continuously scan the tracks both left and right. If no indication of approaching train:
    a. Close the door.
    b. Shift into the lowest proper gear.
    c. Release the parking brake.
    d. Proceed quickly and smoothly across the track.
    e. Turn off the hazards and noise abatement switch once the bus has cleared the containment area.
    f. Shift into drive and proceed with the route.

If there is an approaching train:

1. Hold bus position;
2. After train passes wait fifteen (15) seconds.
3. Follow the crossing procedures.

If there is a multi-track crossing:

1. Treat multiple tracks as one (1) track.
2. Make sure no train is approaching on any track from any direction.
3. After a train passes, wait fifteen (15) seconds and until other tracks become visible before proceeding. A second train may be approaching from the opposite direction or on another track.
4. Cross using crossing procedures previously discussed.

If there is a stop after the tracks:

1. Complete the stop ensuring as long as there is a minimum of fifteen feet (15') between the bus and the tracks.
2. If there is not sufficient room to leave a minimum of fifteen feet (15') between the bus and

the tracks, do not go. A train may approach while you are stopped.

RAILROAD TRAFFIC CONTROL DEVICES

FLASHER LIGHTS AND BELLS

1. These are warnings of an approaching train. Vehicles may proceed only at the direction of a law enforcement officer or an authorized railroad representative.

GATES

All traffic must obey these devices. Vehicles may proceed around the gates only at the direction of a law enforcement officer or an authorized railroad representative.

FLAGMAN

Make a safety stop. Follow directions of the flagman as to when to cross. Cross using crossing procedures previously discussed.

PARKING THE SCHOOL BUS

Remember: At no time is it recommended to back a school bus out into traffic flow. This is extremely dangerous and all options need to be explored to prevent backing the bus, this includes how the bus is parked. Always be mindful of what is going on around you while parking. Just as in a car, people will walk in front of and behind the bus without looking.

ANGLED PARKING

1. When preparing to forward park in a 45 degree angle space, position the bus as far out in the driving lane as is practical.
2. Check the left, then right mirrors.
3. Signal for the right turn.
4. Drive forward past the right edge of the angle space and turn sharply so that the front bumper clears the left edge of the angle space.
5. Move forward slowly, watching the right mirror to see that the bus clears the right edge of the angle space.
6. Position the bus in the center of the space.

LEFT SIDE PERPENDICULAR PARKING

1. Drive past the parking stall.
2. Check the left mirror.
3. Shift to reverse.
4. Turn the wheels to the left.
5. Slowly back toward the stall, observing the left mirror – then right mirror for dual wheel positions.
6. Keep the left rear wheel close to the front corner of the stall.
7. Begin to straighten the wheels.
8. Use mirrors to monitor the direction of the bus.

PARALLEL PARKING

1. Signal your intentions well ahead of time.
2. Position the bus next to and about three feet (3') from the vehicle parked in front of the space to be occupied.
3. Stop when the rear of the bus is even with the rear of the front vehicle.
4. Check the left mirror, right mirror and then left mirror again.
5. Shift into reverse.
6. Back slowly while turning the steering wheel slowly to the right until the right rear wheel is in line with the rear or the front parked vehicle.
7. Straighten the steering wheel when the entrance door is in line with the rear of the vehicle parked in the front space.
8. Back straight in until the front bumper reaches the rear bumper of the front vehicle.
9. Continue backing slowly while turning the steering wheel sharply to left when the front of the bus clears the rear of the vehicle.
10. Check the left mirror to position the bus.
11. Stop the bus just short of the vehicle parked behind.
12. Shift into drive.
13. Center the bus in the space no more than one foot (1') from the curb.

HILL PARKING

It is very important that the wheels be positioned properly when a bus is parked on a hill. The wheels must be positioned as follows:

- Parked on upgrade with curb, turn the wheels toward the center of the road.
- Parked on upgrade without a curb, turn the wheels away from the center of the road.
- Parked on downgrade with or without a curb, turn the wheels away from the center of the road.

LEAVING PARALLEL PARKING

When the bus must be moved from the parking space, the following procedures must be used to back the bus as far as possible (requires depth perception skills, use spotter if possible).

1. Check the left mirror.
2. Put into drive or normal starting gear.
3. Turn steering wheel sharply to the left.
4. Check for traffic and signal left.
5. Enter the travel lane when clear.
6. Check mirrors for clearance of the front and right side of the bus.
7. Steer bus into the proper lane position.

For leaving an angular or perpendicular parking space, the procedure is to use either forward or backward motion. Using forward motion, the driver moves the bus forward until the rear of the bus has cleared the other vehicle, using mirrors to check. Using backward motion to leave, the driver backs when traffic permits until the front of the bus clears the obstacles. At no time is it recommended to back a school bus out into traffic flow.

STARTING ON AN UPGRADE

1. Manual shift:
    a. Press brake.
    b. Set parking brake.
    c. Press clutch.
    d. Place gearshift lever in first gear for four speed transmission or second gear (or

first gear if on a step upgrade) for five (5) speed.

e. Release brake.
f. Press accelerator.
g. Release clutch to friction point, simultaneously releasing parking brake so that bus does not roll backward.
h. Release clutch completely and press accelerator until bus gains adequate speed to shift into next higher gear.

2. Automatic Shift
    a. Press brake.
    b. Set parking brake.
    c. Place gearshift level in drive (or low if on a steep upgrade).
    d. Gradually press accelerator.
    e. Release emergency brake.

STARTING ON A DOWNGRADE

A. Manual Shift
    a. Press Brake.
    b. Set parking brake.
    c. Press clutch.
    d. Place gearshift lever in first gear for four- speed-transmission or second gear for five speed.
    e. Release parking brake.
    f. Gradually release brake.
    g. Release clutch to friction point.
    h. Accelerate, if necessary, and gradually release clutch all the way.

B. Automatic Shifts on Downgrade
    a. Press brake.
    b. Place gearshift lever in drive (or low if on a steep downgrade).
    c. Release brake and accelerate if necessary.

CHAPTER 6

PUPIL BEHAVIOR MANAGEMENT

OBJECTIVES:

The driver will be able to:

- establish a personable and acceptable student-driver relationship;
- establish and maintain a safe atmosphere on a school bus;
- provide leadership through driver performance;
- successfully apply behavior control techniques; and
- recognizing potential security issues

INTRODUCTION

Two-way communication between driver and student is essential for reducing incidents and improving the atmosphere on school buses. This means leadership from the driver, and pupil participation in the development of rules governing acceptable behavior. Existing state laws and regulations should be used as a foundation for the development of these rules.

Behavior problems on school buses vary from district to district and bus to bus. Some district buses have very few behavior problems while others may have tremendous behavior problems. Rules concerning behavior are essential on all bus routes. Through the districts code of conduct, each student should know and understand what is expected of them. As a role model, the school bus driver should strive to model the behavior expected to help build the relationship with the students.

Students must know what is expected of them and the consequences for noncompliance.

ATMOSPHERE

What can be done to reduce or eliminate disruptive behavior on school buses? The best

answer to this question is to develop and maintain an atmosphere conducive to transportation safety.

DEVELOPING RULES

Input from the driver and the pupils should be the rule instead of the exception. This policy is suggested because people tend to obey and respect rules which they have had input in the development. Allow the students to participate in the making of the rules. Each driver should be allowed to have a five (5) minute rule meeting within the first two or three (2 or 3) days they drive.

A good starting point for development of the rules might be your local district transportation discipline rules, some examples are:

1. Students shall wait until signaled by the driver before boarding or leaving the school bus.
2. Students shall always remain seated when the bus is in motion.
3. School bus driver may assign seats.
4. Students shall not eat or drink while on the school bus.

It is important that each student know what is expected of them each day they ride a school bus. This should be discussed during the "rules meeting" with the students. Let the students participate in developing the rules and the consequences for not following them. Many of their recommendations will be similar to those of the drivers and at times will be tougher.

When they suggest a rule that is close to a state or local safety guideline, let them know that they have come up with a very important rule. At some point, when you feel your students have exhausted their reserve of suggested rules, provide them with the remaining rules which will govern the bus daily.

After the driver has finalized the riding rules for their school bus, they should introduce any additional district procedures for handling behavior problems and send them to the students' parents. They will be as effective as the driver is consistent. The driver must set and maintain the

tone of the relationship with their students. This is not an easy task, a drivers' attitude about this responsibility will determine how successful they are.

Some of the ways to establish and maintain a positive tone are:

1. Remember names.
2. Provide a warm greeting.
3. Use a receptive voice tone.
4. Understand positive and negative feedback.
5. Provide good examples and be a role model.

REMEMBER NAMES

If a driver expects his/her name to be pronounced correctly and used politely, then they must first learn and use students' names properly. Learn their names quickly and show an interest in them. This is one of the best ways to break down barriers that may exist between driver and students.

GREETINGS

How a driver greets his/her students every morning will often be a factor in determining the degree of cooperation received from his/her students. The below examples also reflect the drivers concern for their students' health and safety.

1. A cheerful "HELLO"
2. "Good Morning"
3. "Good-Bye"
4. "Walk Carefully" or "Watch Your Step"

VOICE TONE

The driver's voice tone and what they say is very important. Think back to primary and secondary school years.

A driver should avoid a threatening or angry tone but should be firm when they inform pupils that he/she is concerned. They do this by changing from their usual conversation style to an

appropriate, serious tone when the situation warrants it.

POSITIVE REINFORCEMENT

A bus driver can avoid causing a separation between themselves and their students if requests for certain behavior from them are in a positive manner. A driver should also promote positive responses. A positive response rewards a behavior and increases the possibility of that behavior occurring again. Everyone likes positive attention. Children are known to need and demand attention and sometimes they don't get as much as they need. If a bus driver can give them positive attention, they can provide a positive model for social changes.

Examples of positive responses are:

1. verbal approval
2. praise
3. smiles
4. positive attention

NEGATIVE RESPONSES

Pupils who cannot get positive attention may misbehave for the reward of negative attention from their peers and adults. A bus driver must control their temper and not put the disruptive individual in a position where they must back down in front of the group or win their respect by "mouthing off."

LEADERSHIP

Leadership is not the same as management. Leadership is a process that involves active communication, inspiration, and supervision. A leader needs to be authentic and be willing to listen. A leader is also willing to ask for help when they need it.

Students feed off of those around them. Being a leader and a positive role model for the students will earn a driver respect. A drivers' good personal hygiene and proper dress is also important. It shows they respect themselves and the position they hold. School bus drivers who are well groomed provide good personal appearance examples for the students. Students are more willing to listen to those that will listen to them and are willing to do the things they are asking the

students to do. Don't ask the students to do anything you would not do yourself.

1. Adhere to the rules.
2. Be punctual.
3. Be courteous.
4. Be Fair.

EVALUATING THE SITUATION

As a driver, you may feel like you are constantly putting out fires and there seems to always be issues. You must stop and evaluate the situation. Is the problem yourself or the students? When you are in a good mood, you may be able to overlook minor infractions, but when you are in a bad mood, the same infraction might cause you to write the student up and provide consequences to the student. Going back to leadership, is this fair to the students?

Personal circumstances can influence how a school bus driver handles behavior issues on their bus. School bus drivers should strive not to let personal issues or circumstances interfere with the safe operation of their bus. A driver should honestly evaluate their mood and how it is reflected in their attitude toward students. A school bus driver must make sure that it is students' actions which they are addressing instead of using their actions as an opportunity to vent their own frustrations. Personal frustrations should not be taken out on students.

Students will risk punishment if there is an occasional chance of getting away with something. Being fair, firm and consistent is very important. Fairness and consistency will promote respect and cooperation, and a safe bus driver must have these. Inconsistent enforcement of rules will encourage students to challenge the driver. Always use good judgment in dealing with behavior issues.

Confidential information: Confidential information is personal and often pertains to students' home situations. This information should not be shared with others unless it is of a nature that warrants it. Knowing the extent of some of these situations should motivate a driver to try harder to develop good relationships with the students who cause the most issues.

CONTROL TECHNIQUES

There will be some issues which even the best school bus driver cannot handle alone. A bus driver should be able to control the situations using various techniques.

1. Establish a personable and acceptable student to driver relationship.
2. Establish and maintain a safe atmosphere on a school bus.
3. Provide leadership through driver performance.
4. Successfully apply behavior control techniques.
5. Analyze proper procedures and methods for dealing with individual and group behavior problems.

INDIVIDUAL BEHAVIOR ISSUES

Every district must have their own code of conduct and discipline policy. It is important to follow these policies. You always want to try and use the lowest form of action possible. Talking to the students, not yelling or judging, is a great start. For something that warrants being written up, the first or second offense might be a warning. The third or fourth offense may mean changing seats or asking the child to stay on the bus after arrival. Drivers need to be consistent with utilizing the policies and procedures and be fair to all students. In addition to talking to the student, disruptive behavior can be managed much better when the parents are informed about the behavior, before it becomes necessary to ask the child to come in with their parents for a conference.

GROUP BEHAVIOR ISSUES

Disruptive behavior from a group is normally more hazardous than an individual behavior issues. When a group ignores your request for order and the disturbance is distracting or hazardous, it is best to pull off the road, stop the bus and talk to the disruptive students. In this situation, it is extremely important to exert your role as the authority and the leader. You have an opportunity to utilize your control techniques appropriately and to be fair, firm, and consistent. At any time you feel you need assistance, call for help by following your district policy.

STUDENT CONFERENCE

Sometimes a student's behavior warrants a conference with them and their parent(s)/guardians.

The conference should be conducted by an administrative official, most often the principal, of the school and fact based, not emotion based. The primary objective of the conference is to involve the parent(s)/guardians in the specifics of the child's disruptive behavior, remind them of the safety aspect of appropriate behavior on a bus, and petition support from the parent(s)/guardians. Both the student and the parent(s)/guardians should understand the critical nature of the conference and the consequences that may follow should behavior not improve.

Suspension of riding privileges may be the next step after a conference. The length of the first suspension is usually one (1) to five (5) days. This should be spelled out in the district code of conduct policy. When a student is suspended, parent(s)/guardians are responsible for getting the student to and from school, for the duration of the suspension. Each student should receive the same consequence for the same infractions.

Remember, it is vital that each driver be fair, firm and consistent in all interactions with the students who ride their bus.

ROLES OF LEADERSHIP

A critical aspect of pupil transportation is pupil management. Most school bus drivers have no difficulty driving the school bus, the downfall comes when they have to interact with the students who ride their bus. Every board of education, superintendent and local pupil transportation director must ensure that a viable and effective program of pupil management is in place to assist the school bus driver with the task of safely transporting pupils to and from school and on school- related trips. Many schools have programs in place which includes Positive Behavior Intervention & Supports (PBIS) training. This training is implemented from the top down and includes involvement from the local Board of Education, superintendent, transportation director, principals, teachers, bus drivers, students, and parents.

Each of these groups has a vital role in developing and maintaining a viable and effective program of pupil management in their school system.

LOCAL BOARD OF EDUCATION

The role of the local board of education very important. The board is charged with the responsibility for the welfare of all students. The policies that the board adopts have the effect of law and are the basis upon which the pupil management program will rest. Each driver should have complete knowledge of the board's pupil management program and the steps involved in the discipline process.

Once standards of conduct for pupils have been developed, it is the board's responsibility to adopt them as policy. These policies and rules must be an integral part of the required Student Code of Conduct that each board must adopt. The board also plays a role in training school bus drivers by insisting that all drivers receive training in managing the pupils who ride their bus. The board should treat misconduct on the bus on the same level as in the classroom.

SUPERINTENDENT

The role of the local superintendent is critical to implementing a viable pupil management program. The superintendent must ensure that all principals and teachers understand their role in the pupil management program and that they fully support the program by seeing that all the provisions of the pupil management program are effectively enforced.

TRANSPORTATION DIRECTOR

The transportation director has a pivotal role in the development and implementation of the pupil management program. They must be the catalyst to ensure that a well-designed and functioning program of pupil management is in place. The transportation director runs the day to day operations of the pupil transportation department and provides the critical information and training needed to all roles, including the board.

Utilizing the resources available, the local transportation director must analyze the situation that exists and involve all the groups in determining the components of the pupil management program. The local transportation director must determine the roles of each group and then ensure that each group understands their role and takes the necessary actions to effectively implement it.

PRINCIPAL

The role of the principal is also a vital key to any pupil management program. The principal is the person who is responsible for the discipline of the students. The principal is the one who must ensure that the consequences listed in the pupil management program are carried out. They ensure that the children at their school fully understand their responsibilities when riding a school bus, as well as the actions that will result in losing their privilege of riding the school bus. The principal must support the school bus drivers just like they would support the teachers in their school.

TEACHERS

The teacher plays has a vital impact upon the effectiveness of the pupil management program. The teacher is responsible for providing the required instruction in the proper way to ride a school bus. A full explanation of the rules, regulations and requirements must be taught to the pupils by the teacher or the driver annually. The instructional aspect of the pupil management program is critical to ensuring that each pupil fully understands what is expected each time they ride a school bus. It is also vital that each pupil understand the consequences if they fail to adhere to the rules and regulations.

BUS DRIVER

The role of the school bus driver is the most pivotal role within any pupil management program. The school bus driver has the responsibility for ensuring that the program is effective. The school bus driver must be aware of all facets of the pupil management program and operate within the framework of the program in a **fair, firm, and consistent** manner. The school bus driver must work with the pupils on their bus to ensure that they fully understand what acceptable and unacceptable conduct is. The school bus driver must establish ground rules for their bus. These ground rules must be within the framework of the pupil management program. School bus drivers must develop the skills necessary to manage all situations and children that ride their school bus. An understanding of how pupils act at various ages is critical when dealing with children.

STUDENT

The role of the student a critical role. How the students act will dictate the effectiveness of the pupil management program. Students must have a clear understanding of the expected conduct while on the school bus. Compliance with all the rules and regulations is a must if the student is to properly fulfill his/her role in the pupil management program.

PARENT/GUARDIAN

The role of the parent/guardian is vital. They must know what is expected of their child in order to continue the privilege of riding the school bus. They must ensure that their child understands the rules and abides by them. The parent/guardian must support the bus driver in seeing that their child abides by the rules. By supporting the total pupil management program, the parent can ensure that their child retains the privilege of riding the school bus and is a safe rider.

MAINTAINING STUDENT BEHAVIOR

Often time's misbehavior is the result of something that is going on in a child's life. There is usually a cause and it might be you or some other influence which causes the child to misbehave. It can be as simple as the tone of voice or a look that the child has been given or perceived to be given. Below are do's and don'ts when interacting with children who are displaying misbehavior.

BEST PRACTICES

1. Look and commend good qualities and actions.
2. Be friendly. Always show an interest in what they are doing.
3. Give your command to stimulate action, not to check it. The response of the child is in action. Suggest an action which can be successfully obeyed. Rather than "DON'T DO THAT", say, "DO THIS".
4. Give a child time for reaction.
5. Have a reason for what you ask a child to do, and when possible, take time to give the reason so that he/she can see the point.
6. Be honest in what you say and do.
7. Be fair as it isn't punishment, but injustice that makes a child rebel against you.
8. Be constructive in your reaction.

9. Listen for suggestions and complaints from the children.
10. Follow-up cases which have been disciplined. Be certain that you still have the respect and confidence of the child.
11. Don't hold a student up to public ridicule. It is the surest way of creating a discipline problem.
12. Don't judge misconduct by how it annoys you, always maintain poise.
13. Don't lose your temper.
14. Don't take your personal feelings and prejudices out on the children.
15. Don't harass, bluff or be offensive.
16. Don't "pick" on every little thing a child does. Pick your battles. Sometimes, it is wiser to overlook some things.
17. **Never** strike a child.

RESPONSIBLITIES

Pupil management involves the combined effort of four (4) distinct groups of individuals. An effective program must have the support of the school district administration, school bus drivers, students and parents/guardians. Each school district should institute a comprehensive plan for the student's safety and wellbeing, as well as protecting the interests of all others involved in the program.

SCHOOL DISTRICT

1. Establish the policies and procedures by which the program functions.
2. Establish pupil regulations governing the behavior and safety of pupils while on the bus and at the bus stop.
3. Institute and administer an instructional program that teaches pupils proper conduct and safety procedures.
4. Conduct a training program for school bus drivers to ensure that all policies, procedures and regulations, and why they must be enforced, are understood.
5. Ensure that parents/guardians receive written copies of the bus rules and regulations. Clearly establish their roles and obligations with respect to pupil promptness, attitude and behavior.

6. Initiate procedures to ensure open lines of communication and cooperation between school administrators, bus company officials, state agencies and bus drivers.
7. Provide training in pupil management skills that extends beyond the scope of enforcing rules and regulations.

DRIVER

1. Be familiar and abide all rules, policies and procedures effecting pupil transportation.
2. Establish rapport with each building administrator and work to ensure proper conduct and communications.
3. Establish rapport with the students.
4. Instruct students in proper behavior, general procedures and evacuation drills.
5. Maintain order as a safety practice and stress proper behavior.
    a. Minimize interior noise.
    b. Control student movement.
    c. Require an orderly entrance and exit.
    d. Eliminate movement or potential movement of objects.
    e. Require silence at railroads crossings.
    f. Prohibit transportation of unauthorized materials.
6. Handle minor infractions through seat assignments or discussions with pupil students
7. Follow school district policy pertaining to misconduct and submit written reports on the appropriate forms to the appropriate person.
8. Be aware that the driver represents the school system and should present a positive image in dress, language and manner while on duty.
9. Be familiar with the assigned routes and designated school bus stops.

STUDENTS

Proper student behavior is important. The distraction of the driver can contribute to incidents. Students and parents/guardians should be made aware of, and abide by, responsible regulations to enhance safety. The consequences of unacceptable behavior **should be clearly understood**. The following procedures will protect the pupil's rights and maintain order on the bus.

Pupils must:

1. Be aware that they are responsible for their actions and behavior.
2. Know what the rules and procedures are and abide by them.
3. Display proper respect for the rights and comforts or others.
4. Realize that school bus transportation can be denied if they do not conduct themselves properly.
5. Be aware that any driver distraction is potentially hazardous to their safety.
6. Do not wear clothing or back packs with long hanging drawstrings or straps that can get caught in the handrail or door of the bus.

PARENT/GUARDIAN

1. Become familiar with the district rules and policies, regulations and principles of school bus safety.
2. Assist children in understanding the safety rules and encourage them to abide by them.
3. Recognize responsibilities for the actions of their children.
4. Support safe riding practices and reasonable discipline efforts.
5. Teach children the procedures for safely crossing the highway before boarding and after leaving the bus.
6. Support procedures for emergency evacuation and procedures in an emergency as adopted by the school district.
7. Support respect for rights and privileges of others.
8. Communicate safety concerns to school administrators.
9. Support all efforts to improve school bus safety.
10. Parents/guardians should not allow students to wear clothing or back packs with long hanging drawstrings or straps on them to avoid the hazard of them getting caught on the handrails or door of the bus.

SECURITY AND CRIME

It is important to be aware of potential security and crime threats to your bus and your bus route. Because of the daily routine in the morning and afternoon, a bus driver is often the first person to recognize that things may be different in an area. The safety of the students on the bus is the driver's first priority. Knowing the students and their parents or guardians will help you in the

safety and security of the bus and bus stop. If something doesn't look right, report it and have it looked into immediately.

Be on the lookout for suspicious packages, people, vehicles, and activities. When something doesn't look or feel right, report it.

By doing your daily pre-trip, walk-around and post trip inspections, and keeping your bus clean, you are able to become very familiar with your bus. This helps you to be aware of unattended packages or backpacks left on the bus. Recognizing and knowing what the students they typically bring on the bus allows you to know if a backpack or package might be suspicious and not left by a student.

What are some things that might be suspicious or just doesn't look right?

- A student with an instrument case that has never had one before.
- A student that is wearing really baggy clothes, but typically doesn't.
- A student wearing a big jacket on a hot day.

In each of these cases, talk to the student and contact dispatch. Be mindful of how you approach the student and asking them about your suspicions. What are some ways you can approach the student?

A student with an instrument case that has never had one before.

> Ask the student about the instrument, such as, "I didn't know you played, that instrument. When did you start doing that? Can I see it?" Most students will open the case. If they don't, that is a red flag.

A student that is wearing really baggy clothes, but typically doesn't.

> Ask the student how they are doing. At the same time, watch their hands and movements. Is the student trying not to move much because they have something hidden? Did they walk up to you different? Do they look scared or nervous? Knowing your students and their typical actions and reactions will help you navigate through this type of situation.

A student wearing a big jacket on a hot day.

> Ask the student if they are okay as you noticed it was hot and they are wearing a heavy jacket. Ask if they are okay and as in the previous situation, watch their movements.

If a package or backpack is suspicious, contact 911.

When on your bus route, be aware of your surroundings and anything that might look out of place. There are some things you should be watching for at all times. Are there vehicles that are following the bus and stopping near stops? Are there people hanging around the bus stop that shouldn't be? Have you seen packages or items that look out of place? If something doesn't look right, call it in and don't let the students off of the bus. Follow your district procedures for these situations.

Do not allow unauthorized persons or parents to board the bus. Only those who are authorized by the superintendent should be on board. Anyone wanting to talk to the driver should go to the driver window.

Recognize the potential signs of criminal activity such as human trafficking, gang activity or drug activity. Knowing your students will help you know if something is wrong. Are students wearing expensive purses, phones, shoes, or other clothes they can't afford? Is an outgoing child suddenly extremely quiet and cautious about getting off the bus? Watch for signs such as tattoos, re-occurring injuries, and odd behaviors. Is someone following your students to the bus stop or do they getting off the bus and are with someone you don't recognize? You are required to report suspected abuse. Follow your district policy to reporting these types of situations.

Hijackings and attacks on school buses are very rare in the United States. In the event of a one does happen, activate the emergency button located on the two-way radio, if your bus is equipped, and notify your dispatch office immediately.

If your bus has a camera, speak to your transportation director or driver trainer about reviewing

video of anything you might find suspicious. You may be seeing a pattern change and reviewing the video can confirm it. You may be the one person in that child's life to notice and make a difference. By being the first and last person they see each and every day, your vigilance may save their life.

Be familiar with and follow your district policy in the proper procedures for handling these and other situations that could be potentially serious threats.

Sample Policy

School bus transportation is authorized only for pupils regularly enrolled in a public school in preschool through grade twelve. The transportation department provides you with the best equipment and drivers, and with the safest program possible. The following rules are provided for your information and compliance. We ask your cooperation.

AT BUS STOPS

1. Be on time. The bus cannot wait beyond its regular schedule for those who are tardy. Be at the bus stop five (5) minutes before your bus is scheduled to arrive.
2. Always cross in front of the bus at a safe distance (minimum 10-15 feet) in order to be seen by the bus driver. **Cross only on the driver's signal.**
3. Do not run toward or run across the street in front or behind a school bus while it is in motion.
4. Never stand in the road while waiting for the bus. Wait in an orderly line off the highway or street. Wait until the bus stops and the driver signals, and then walk to the door and board the bus in an orderly manner. DO NOT PUSH AND SHOVE.
5. Pupils shall board the bus and immediately take a seat without disturbing other students. Do not exchange seats unless given permission by the driver.
6. Pupils shall not get on or off the bus or move about within the bus while it is in motion.
7. Pupils shall not wear clothing or backpacks with long strings that could become entangled in the bus handrail.
8. Avoid making excessive noise.

9. Remember that fighting at bus stops and on the way to and from school bus stops is subject to disciplinary action (to be reported to the school principal).

RIDING THE BUS

1. The driver oversees the bus and its students. For your safety and the safety of others, follow directions the first time they are given.
2. Pupils shall ride their assigned bus, unless approved in writing by the principal or designee.
3. No persons other than those assigned to the bus shall be allowed to ride a school bus.
4. Report promptly to the driver any damage done to the bus. Persons causing damage may be expected to pay the full cost of repairs before riding privileges are restored.
5. Pupils shall not engage in any activity which might divert the driver's attention away from driving the bus and cause an accident, such as:
    a. improper behavior (including disobedience, foul language, fighting, pushing, shoving and similar offensive acts);
    b. smoking on the bus;
    c. eating or drinking on the bus;
    d. possessing guns, knives or other sharp objects;
    e. bringing animals on the bus (either live or preserved specimens);
    f. throwing articles or objects in or from the bus;
    g. tampering with mechanical equipment, accessories or controls of the bus;
    h. placing noncompliant musical instruments or other articles on the bus or at the door by the driver;
    i. obstructing the aisle in any manner;
    j. occupying more space in a seat than required (all items students bring on a bus must be held by the student and will not be placed on seats or in aisle);
    k. tracking mud or dirt onto the bus;
    l. littering the bus; or
    m. opening or closing windows without the driver's permission.

6. Violations of the rules and regulations for riding a school bus shall result in the following

actions:

a. First offense – bus driver will have a talk with the pupil.
b. Second offense – bus driver will move pupil to a front seat for two (2) weeks and written notification will be sent to principal and parent/guardian. Pupil will not be allowed back on the bus until notification form is returned to the driver.
c. Third offense – a misconduct report will be filed with the principal of the school where the pupil attends. Pupil will not be allowed back on the bus until parent has signed and pupil returns a copy of the report to the driver.
d. Fourth offense – a second misconduct report is filed, and the principal suspends bus riding privileges for a minimum of five (5) days.
e. Fifth offense – a third misconduct report is filed, and the principal suspends bus riding privileges for the remainder of the school year.

7. Some offenses are of such a serious nature that they can be deemed to warrant suspension of bus riding privileges without following the procedure outlined above. Included in these offenses are:
    a. disruptive behavior;
    b. use of tobacco in any form while on the bus;
    c. use or possession of alcohol, drugs or narcotics;
    d. failure to remain in seat when bus is in route and being a disruptive force;
    e. use of profane, abusive or excessively loud language;
    f. littering or throwing objects (no food, candy or beverages allowed on bus);
    g. vandalism (at a minimum, may be made to pay for damages before privileges are restored);
    h. violation of any school or bus rule while waiting at any school to board the bus;
    i. failure to follow the proper procedure when crossing the road;
    j. using, operating or tampering with the operation or controls of the school bus;
    k. failure to properly identify yourself the first time you are asked by the driver or any school authority;
    l. failure to ride only the assigned bus;
    m. failure to comply with the authority of the bus driver on the regulations for pupils

riding the school bus;

n. fighting or scuffling; and/or
o. bringing guns, knives or any weapons on the bus.

BUS STOP

1. Students are permitted to leave the bus only at the regular, designated stop. Any change must be made with the parent's request in writing and approved by the signature of the school principal or designee.
2. If a pupil lives on the opposite side of a road from the bus stop, the pupil should go to the front of the bus and wait until the bus driver gives the signal to cross the road. NEVER cross the road in the rear of a stopped school bus unless the bus has left, and it is a marked pedestrian crossing.

PARENT/GUARDIAN RESPONSIBILITIES

Any complaints of drivers, pupils or parent/guardians shall be reported promptly to the principal or transportation director.

1. Report any misconduct on school buses to the principal.
2. Report all traffic hazards and the bus numbers of all buses observed being operated carelessly to the transportation director.
3. Encourage students to observe all safety and conduct regulations established for the safe and efficient operation of the school buses.
4. Help by exerting extreme caution when approaching bus stops, moving buses or stopped buses.
5. Help supervise large numbers of children at bus stops.
6. Ensure students are at the bus stop five (5) minutes before the bus is scheduled to arrive.

End of Sample Policy

CHAPTER 7

LOADING AND UNLOADING

OBJECTIVE

- Understand bus stop placement.
- Explain the proper behavior for students while waiting for the school bus.
- Perform necessary and safe actions for loading/unloading passengers.

INTRODUCTION

Each year, several fatalities occur at, or near, school bus stops across the country. In the school year (2013-2014), ten (10) such fatalities occurred in the following order:

1. six (6) were killed by passing vehicles
2. three (3) of the students killed by their own bus were struck at the front of the bus
3. one (1) of the students killed by their own bus were struck at the rear of the bus

The tragic loss of life in a loading or unloading incident receives less media attention than an incident that takes many lives at one time, however, it is just as painful to family, friends and loved ones.

The sequence described in this chapter for loading and unloading students should be used by all Kentucky State Certified Driver Training Instructors when training drivers in order to keep consistency throughout the state.

The transported student is in the greatest danger while waiting, boarding and exiting a school bus. The driver of the school bus must follow proper procedures in order to give the most reasonable and safe protection to those school students for which he/she is responsible. You will understand the placement of bus stops and learn the proper loading and unloading procedures.

School Bus Stops

School bus stops placed in locations that have the welfare and safety of the students in mind. School bus stops should not be changed unless directed by a competent authority, designated by the transportation director. The competent authority may include a driver trainer, director, or routing department. Stops are established by looking at many factors at each stop. Parents are responsible for ensuring their children get to and from the stop safely. While the location and schedule may be inconvenient for a parent or guardian, proper supervision shall be provided before the bus picks up a child and after the bus drops off the child. If your district requires a designated person to be at the bus stop to pick up the child, the parents shall make the proper arrangements and the bus driver shall not allow the child to go with someone other than the designated person.

Crossing a road is the most dangerous part of riding a bus. In some districts, it may be policy to not have students cross a road or walk on streets without sidewalks, but in other districts this may be the only option. If a district has determined there are roads they do not want students to cross, no exceptions should be made, even by a parent's request. The school has made the determination by doing an analysis of the area and the level of safety they are providing for the students and the parents cannot choose to provide less safety. Sometimes this may mean a longer bus ride for a student, but their safety is of the utmost concern.

Door to door service is not required by state regulation. In fact, door to door service can be very inefficient. It is the responsibility of the school district to provide safe and efficient transportation to the students. Often times, providing door to door service is more costly to school districts. Some districts have set distance requirements for a road to be traveled.
Stops are to be placed so that they provide enough visibility for both pedestrians and drivers. There needs to be enough sight distance so drivers, bus drivers and students waiting at the stop all can see each other. Bus stops should never have a student walking beside the bus, from or toward the rear of the bus. Keep student foot traffic in front of you.

A school bus driver shall not change a bus stop without the prior consent of the competent authority. A bus driver changing a bus stop to help a parent or student may seem advantageous,

but should an accident occur, you, the driver, may be held accountable if it was not an authorized stop. Students in Kentucky and across the nation have been injured or killed walking to an unauthorized stop. What seems harmless, may in fact be dangerous.

Urban Bus Stops

It is not recommended for a bus stop to be placed at a busy intersection as it is hard to control traffic coming from the other directions. The stopped bus may confuse some drivers and they may not realize that the bus is loading and unloading.

For a stop placed before or after a turn, it is best to have it mid-block, approximately 2-3 bus lengths or 100 feet away from a corner, to give any turning vehicle time to react to the stopped bus. State statute KRS 189.450 also has restrictions, to include stopping should not be "within an intersection or on a crosswalk; within thirty (30) feet upon the approach to any flashing beacon, stop sign, or traffic control signal located at the side of a roadway; or within fifteen (15) feet of a fire hydrant".

Rural Bus Stops

A bus stop may be placed up to a mile away from the edge of the driveway. In cases where there is damage to a road or adverse weather, such as snow or flooding, the bus stop may be further. Many bus stops are established where students can wait in a driveway and move safely to the bus.

Speed, curves and hills, trees and other vegetation, approaching vehicles, and sun glare are all considerations that must be taken when stops are placed. There are no standardized distance measures that provide enough visibility nor are there formulas for computing an appropriate sight distance, but for a heavy truck traveling at 55 mph, they need at least 500 feet for reaction time and stopping distance.

Having a "School Bus Stop Ahead" sign does not make the stop safe, but it is a warning to other drivers that there is a stop in a blind area. It should be installed in advance of locations where a school bus, when stopped to pick up or discharge passengers, is not visible to road users for an

adequate distance and where there is no opportunity to relocate the school bus stop to provide adequate sight distance. Extreme caution shall be utilized in areas where visibility may be limited for drivers in either direction.

As stated previously, a school bus driver shall not change a bus stop without the prior consent of the competent authority. If there is a stop that has potential hazards and you feel the stop is unsafe, contact the competent authority to discuss further. Just because a stop has always been there doesn't mean factors haven't changed over time and the stop may need to be reviewed for safety.

LOADING SUMMARY

Following is the summarization of the step-by-step procedures. When the bus is stopped, the driver will have their foot on the service brake at all times.

Loading students at the bus stop should be done in the following manner:

- Slow down well in advance of the designated stop. Perform a visual scan. Tap the service brake three to five times to activate the brake lights and alert motorists of your intention to stop. Perform a visual scan to include mirrors.
- Activate the yellow-amber warning lights at least two hundred (200) feet, or five to six bus lengths, from the loading zone. Check the yellow/amber indicator light to ensure that the lights are functioning properly.
- When the bus has completely stopped, the driver shall keep their foot on the service brake, set the park brake, place the transmission selector in park or neutral, perform a visual scan to include mirrors and activate the stop arm, red flashing loading and crossing gate if equipped. The driver shall check the red indicator light to ensure the red loading are operating and the stop arm has opened out. Continue performing a visual scan.
    - **NOTE: The stop arm will be used at all times when loading or unloading students. This includes while on school property.**
- Stop back from loading zone ten feet (10'), and have the students walk to the bus. A bus driver should not stop a school bus within an intersection or within thirty feet (30') of any flashing beacon, stop sign or traffic control signal located at the side of a roadway.
- Make sure all traffic has stopped before loading. You should continue to be aware of the traffic environment while loading the students (visual scan).
- Students who live on the opposite side of the roadway from the bus stop are not to cross the roadway until the bus arrives on the scene, stops traffic with lights and the stop arm and the driver signals to cross at a distance of ten to fifteen feet (10' – 15') in front of the bus. The driver and students shall have eye contact until the road crossing is complete.
- When loading students set the parking brake and place the transmission in park or neutral.
- When buses are being loaded or unloaded, the driver shall be on the bus.
- While a school bus is parked to load or unload students, another school bus should not pass. School bus drivers should set the example for all other drivers. This includes when

the bus is on school grounds.

- Students should enter the bus in an orderly manner. They should use the handrail when loading. Do not allow students to push, shove or carry unauthorized objects aboard.
- **NOTE: Beware of clothing and/or accessories that may get caught in the handrail area prior to proceeding.**
- Make sure students are properly seated, then close the door, canceling the stop arm and lights. With foot on service brake, perform a visual scan of traffic and of the danger zone around the bus.
- Keeping foot on the service brake, place the bus in proper gear and, when safe to do so, release the park brake and proceed while continuing to perform a visual scan.
    - **NOTE: Students are to remain seated at all times.**

20 STEP LOADING PROCEDURE

APPROACH

VISUAL SCAN – STEP 1

Perform a visual scan – look for pedestrians and vehicular traffic – as you reduce your speed. Check mirrors.

TAP BRAKES – STEP 2

Lightly apply service brake in order to activate the brake lights to warn motorists of your intended stop. Should tap brake four to five times.

VISUAL SCAN – STEP 3

Perform a visual scan – looking for pedestrians or vehicular traffic that may converge on the loading area. Check mirrors.

WARNING LIGHTS – STEP 4

Activate the warning lights two hundred feet (200'), five to six bus lengths, from the loading area. Check the yellow indicator light to ensure warning lights are operating.

STOP

SET PARK BRAKE – STEP 5

Bring the bus to a complete stop ten feet (10') from the nearest student. Keep the right foot on the service brake. Set the parking brake.

GEAR – STEP 6

Place gear selector in park or neutral.

VISUAL SCAN – STEP 7

Perform a visual scan for pedestrians and vehicular traffic. Check mirrors.

STOP ARM AND LIGHTS – STEP 8 (REVIEW KRS 189.375)

STOP ARM, RED LOADING LIGHTS AND CROSSING GATE, IF EQUIPPED

When safe to do so, activate the red loading lights by activating the stop arm.

Check the red indicator light to ensure the red loading lights are operating. Visually check to see that the stop arm and crossing gate, if equipped, has opened out.

LOADING

VISUAL SCAN – STEP 9

Perform a visual scan to ensure all vehicular traffic has stopped. Check mirrors.

OPEN SERVICE DOOR – STEP 10

Students shall board the bus in an orderly manner. All students must wait until the bus arrives at the stop and driver signals the student(s) to board. Those students who must cross the road shall do so at least ten to fifteen feet (10' – 15') in front of the bus.

Every effort shall be made to eliminate students crossing the road.

HANDRAIL – STEP 11

Instruct students to use the handrail as they board the bus if needed.

COUNT STUDENTS – STEP 12

The bus driver shall "count" and greet the students as they board the bus.

SEATING – STEP 13

Students shall go directly to their seats after boarding the bus. Ensure students are seated.

DOOR

VISUAL SCAN – STEP 14

The driver shall perform a visual scan to ensure that all students have boarded the bus – checking the danger zone around the bus for pedestrian and vehicular traffic. Check mirrors.

CLOSE SERVICE DOOR – STEP 15

After the driver ascertains that it is safe to do so, he/she may close the service door.

VISUAL SCAN – STEP 16

The driver shall perform a visual scan and shall double check the step-well to ensure that no students are stuck in the door, handrail, etc.

DEACTIVATE LOADING LIGHTS/STOP ARM – STEP 17

The driver may now deactivate the loading lights. The stop arm will come back in at this time.

GEAR – STEP 18

Place the gear selector in proper gear.

PARK BRAKE – STEP 19

With his/her foot on the service brake, the driver may release the park brake.

VISUAL SCAN – STEP 20

The driver shall perform another visual scan of pedestrian and vehicular traffic. Check mirrors. Check the crossing gate, if equipped. When safe to do so, proceed.

LOADING SEQUENCE

The following step-by-step sequence should be used when loading students:

APPROACH

STEP 1 VISUAL SCAN

STEP 2 TAP BRAKES

STEP 3 VISUAL SCAN

STEP 4 WARNING LIGHTS

STOP

STEP 5 SET PARK BRAKE

STEP 6 GEAR

STEP 7 VISUAL SCAN

STEP 8 STOP ARM, RED LOADING LIGHTS AND CROSSING GATE, IF E EQUIPPED.

LOADING

STEP 9 VISUAL SCAN

STEP 10 OPEN SERVICE DOOR STEP

STEP 11 HANDRAIL

STEP 12 “COUNT” AND GREET STUDENTS

STEP 13 SEATING

DOOR

STEP 14 VISUAL SCAN

STEP 15 CLOSE SERVICE DOOR

STEP 16 VISUAL SCAN

STEP 17 DEACTIVATE LOADING LIGHTS/STOP ARM

STEP 18 PLACE INTO PROPER GEAR

STEP 19 RELEASE PARK BRAKE

STEP 20 VISUAL SCAN

UNLOADING SUMMARY

Following is the summarization of the step-by-step procedures.

Unloading students at the bus stop should be done in the following manner:

- Reduce speed well in advance of the designated stop as you perform a visual scan. Tap the service brake three to five times to activate brake lights and alert motorists of your intention to stop, while continuing to perform a visual scan of pedestrian and vehicular traffic, including checking the mirrors.
- Activate the warning lights at least two hundred feet (200'), which is four to six bus lengths, from the unloading zone. Check the indicator light to ensure the warning lights are operating.
- When the bus has completely stopped, the driver shall keep their foot on the service brake, set the parking brake; place the transmission in park or neutral; perform a visual scan of traffic; and, when safe to do so, activate the stop arm, red flashing loading lights and crossing gate if equipped. The driver shall check the red indicator light to ensure that the red loading lights are functioning and also visually check that the stop arm has opened out.
    - **NOTE: The stop arm shall be used at all times when loading or unloading students. This includes while on school property.**
- Students should remain seated until the bus comes to a complete stop. You should not stop a bus within an intersection or within thirty feet (30') of any flashing beacon, stop sign or traffic control signal located at the side of a roadway.
- The driver shall perform a visual traffic scan, including mirrors, and when safe to do so, open the service door.
- The driver shall not permit the student(s) to exit the bus until traffic has come to a complete stop. The driver should then continue to be aware of the traffic environment while unloading the students.
- Students should exit the bus in an orderly manner. They should use the handrail when unloading. Do not allow the students to push or shove. Check the step well and service area outside the bus to ensure that no student is caught in the handrail or in the service door area by clothing, backpack strings or straps, etc.
- When buses are being loaded or unloaded, the driver shall be on the bus.
- While a school bus is parked to load or unload students, other school buses should not pass. School bus drivers should set the example for all other drivers. This includes during the time

the bus is parked on school grounds.

- Do not permit the pupils to get off any place except their regular stop unless they have written permission, authorized with the signature of the school administrator and proper date and time.
- Count students as they leave (and enter) the bus and visually check again before you pull away. Check all mirrors to see if students have cleared the roadway and that the danger zone area around the bus is free of pedestrians. You must be sure you are clear to leave the bus stop without endangering any students.
- Students who live on the opposite side of the roadway shall wait for the driver to signal when it is safe to cross the roadway. The student(s) shall cross ten to fifteen feet (10' – 15') in front of the bus, in order to have eye contact with the driver until the roadway crossing is complete.
- Every effort must be made to eliminate students from crossing any roadways. KRS 189.375 states in part, "however, No driver shall stop a school bus or church bus and allow it to remain standing for the purpose of discharging passengers to the opposite side of the road on a highway of four (4) or more lanes, provided that this provision does not prohibit the discharging of passengers at a marked pedestrian crossing."

20 STEP UNLOADING PROCEDURE

APPROACH

VISUAL SCAN – STEP 1

Perform a visual scan – look for pedestrian and vehicular traffic – reducing speed. Check mirrors.

TAP BRAKES – STEP 2

Lightly apply the service brake (three to five times) in order to activate the brake lights to warn motorists of your intention to stop.

VISUAL SCAN – STEP 3

Perform a visual scan for pedestrian or vehicular traffic that may converge into the loading area. Check mirrors.

WARNING LIGHTS – STEP 4

Activate the warning lights two hundred feet (200'), five to six (5-6) bus lengths, from the loading area. Check yellow/amber indicator light to ensure that the warning lights are operating.

STOP

PARK BRAKE – STEP 5

Bring the bus to a complete stop, keep the right foot on the service brake, and set the parking brake.

GEAR – STEP 6

Place the gear selector in park or neutral.

VISUAL SCAN – STEP 7

Perform a visual scan of pedestrian and vehicular traffic. Check mirrors.

STOP ARM AND LIGHTS– STEP 8

STOP ARM, RED LOADING LIGHTS AND CROSSING GATE, IF EQUIPPED

When safe to do so, activate the red loading lights by activating the stop arm. Check the red indicator light to ensure the red loading lights are operating. Visually check to see that the stop arm and crossing gate, if equipped, has opened out.

EXIT

VISUAL SCAN – STEP 9

Perform a visual scan, making sure that all traffic has come to a complete stop. Check mirrors.

OPEN SERVICE DOOR –STEP 10

When safe to do so, open the service door all the way.

COUNT – STEP 11

Count the students as they exit the bus. All students must wait until the driver signals him/her to exit the bus. If a student must cross the road, he/she must cross ten to fifteen feet (10’ to 15’) in front of the bus after being signaled to cross by the school bus driver.

HANDRAIL – STEP 12

Students shall use the handrail as they exit the bus. The driver shall be sure that no student has snagged any object or piece of clothing in the handrail.

VISUAL SCAN – STEP 13

The driver shall perform a visual scan to ensure that all students have exited the bus and have safely cleared the roadway, checking the danger zone around the bus for pedestrian and vehicular traffic. Check mirrors.

ALL CLEAR – STEP 14

DOOR

CLOSE SERVICE DOOR – STEP 15

When safe to do so, the driver will close the service door. The driver shall double check the step-well to ensure that no students are stuck in the door, handrail, etc.

VISUAL SCAN – STEP 16

The driver shall perform a visual scan of pedestrian and vehicular traffic. Check mirrors.

DEACTIVATE LOADING LIGHTS/STOP ARM – STEP 17

The driver may now deactivate the loading lights. The stop arm will come back in at this time.

GEAR – STEP 18

When safe to do so, the driver will place the gear selector in the proper gear position.

PARK BRAKE – STEP 19

With the right foot on the service brake, the driver will release the parking brake.

VISUAL SCAN – STEP 20

The driver shall perform a visual scan of traffic and check mirrors. Check the crossing gate, if equipped. When safe to do, proceed with the route.

UNLOADING SEQUENCE

Note: One third of all steps are performing visual scans

The following sequence shall be used when unloading students:

APPROACH

STEP 1 VISUAL SCAN

STEP 2 TAP BRAKES

STEP 3 VISUAL SCAN

STEP 4 WARNING LIGHTS

STOP

STEP 5 PARK BRAKE

STEP 6 GEAR

STEP 7 VISUAL SCAN

STEP 8 STOP ARM , LOADING LIGHTS, AND CROSSING GATES

EXIT

STEP 9 VISUAL SCAN

STEP 10 OPEN SERVICE DOOR

STEP 11 COUNT STUDENTS

STEP 12 HANDRAIL

STEP 13 VISUAL SCAN

STEP 14 ALL CLEAR

DOOR

STEP 15 CLOSE SERVICE DOOR

STEP 16 DEACTIVATE LOADING LIGHTS

STEP 17 VISUAL SCAN

STEP 18 GEAR

STEP 19 PARK BRAKE

STEP 20 VISUAL SCAN

BUS STOP BEHAVIOR

Most fatalities occur outside of the school bus. Darkness in the early morning and active youngsters waiting for the school bus combine to make this time of day especially dangerous. It is a school bus driver's duty, at the earliest possible opportunity in the beginning of the school year, to instruct his/her students on how and where to wait for a school bus. A student waiting for the school bus should:

1. Arrive five minutes before the time the bus is to arrive. The bus driver cannot wait.
2. Wait well away from the street or road.
3. Wait on the side of the street on which the student(s) lives. The student(s) should not cross the street until the bus comes to a complete stop, traffic in both directions is controlled and the driver signals the student(s) to cross. The student(s) shall cross in front of the bus at a distance of approximately ten to fifteen feet (10' – 15') in order for the driver to see them. The driver will signal the student and maintain eye contact until the road crossing is complete.
4. Respect the property of others; avoid walking on the grass, throwing trash down, picking flowers, damaging shrubs, etc.
5. Fighting at bus stops and on the way to and from school is subject to local Board disciplinary action.
6. Keep belongings out of the roadway.
7. **NOTE: If a student should drop an object in the roadway, he/she should never stop and pick it up until the driver is made aware and gives permission.**
8. Avoid loud behavior. Proper behavior is expected at all times.
9. Line up in a single line, well away from the street (at least two big steps from the curb) when the bus is sighted.
10. Approach the bus after it stops and board in an orderly manner, after the driver's signal, using the handrail.
11. Go immediately to his/her seat and sit down facing forward. The bus driver cannot start the bus until everyone is seated.

The bus driver has the responsibility of controlling traffic while loading and unloading the students on his/her bus. He/she has to minimize the risks involved with their loading. To do this, he/she must correctly follow the above-mentioned guidelines.

CHAPTER 8

EXTRA-CURRICULAR TRIPS

OBJECTIVE

- Identify the necessary information needed in planning a field trip.
- Handle emergencies while on field trips.
- Leaders and their responsibilities.

INTRODUCTION

Numerous problems can arise when driving on field trips – problems such as selecting the wrong route, running out of fuel, arriving late or not at all. Student issues can also arise because of no food or rest stops. These can also cause the driver to have an unhappy or more importantly an unsafe trip. The field trip or activity trip is a special and exciting time for all concerned, but it should also be a safe time. The best way to ensure a safe and happy trip is through pre-planning.

Following are items to be discussed in this chapter:

- Times
- Route Planning
- Emergency Preparations
- Responsibilities
- Problem Causing Situations

ARRIVAL AND DEPARTURE TIMES

Many field trips take drivers out of their district. If problems arise, the driver will probably have a more difficult time in getting assistance. Problems, therefore, take on a more critical nature. Without planning, minor problems can become major ones.

Have the students arrive at the designated meeting location thirty (30) minutes prior to departure for information concerning the field trip, practicing emergency evacuations, explaining planned stops, expected behavior, etc.

Departure times and locations are important. Drivers have to know the exact time they are to arrive at the school, the exact location for the student pickup and the exact time of departure for the event.
The same is true for arriving at the event. The exact arrival time and location must be known. For the return trip, drivers must know when they are to arrive at the student pickup spot, the exact location and when to depart.

It is also important that drivers know their expected arrival time and location back at the school so that parents know when and where to pick up their children.

ROUTE PLANNING

Since departure and arrival times are important, it is necessary for the driver to plan routes in enough detail that travel times can be reasonably estimated. The planned route should include both a primary route and a secondary route, in case of a traffic tie-up or detour on the primary route. Be aware that if using a Global Positioning System (GPS) or other trip routing software, you should use the most fuel-efficient route, but also be aware of any restrictions such as bridge weights or overpass heights that you may encounter.

Special stops along the way should also be planned. These would include stops for food, fuel and comfort (refer to 702 KAR 5:080, Section 11, “Fueling”). It is best if they can all be accomplished in one stop rather than a separate one for each. If a fuel stop is required the driver must have adequate means to pay for the fuel whether by school fuel card, cash, etc. When estimating travel time, time estimates for these stops will have to be included.

A driver should know any special situations along the way. Bridges and tunnels would be good examples. A question the driver might ask is: “Is there anything along the way that I cannot get over, under or through?”

Tolls are another consideration. Does the route cross any toll bridge or use a toll road? If it does, the driver will need enough money to pay these tolls.

Frequently, at special events, there is a special parking area for buses. The driver needs to know if there is such a special area and where it is located.

A final consideration is any special instructions. Is there anything else you need to know for a safe and happy trip? Drivers should check with the transportation supervisor for special conditions or situations.

EMERGENCY PREPARATIONS

Many things can go wrong while on any trip. These mishaps can range from very minor events to major catastrophes. On a field trip, a mishap of any degree of seriousness is always more difficult to handle because drivers typically are not as familiar with the area as they are with their own route, and assistance may be more difficult to obtain.

Drivers should have on hand several phone numbers should they need to get in touch with key supervisory personnel. This would include the school office and transportation supervisor. Phone numbers of where these individuals can be reached in the evening, as well as their normal office phone number should be obtained.

The driver should have available the name, address, and phone number of the insurance carrier should an incident occur. This information should be on each bus the district operates.

A two-way radio under emergency conditions is almost a necessity. If possible, a radio should be carried so the driver has a means to contact the school or emergency agencies to request assistance. If a cell phone is taken, the driver should stop the bus in a safe location before use.

Some of the students may have special medical needs. These students and their medical needs should be known before the trip begins. Only in this way can any medical issues be planned for in advance.

Because of the excitement of the trip, and its length, it is possible that a student might become ill. Drivers need to know how to handle common illnesses and plan for them in advance.

RESPONSIBILITIES

Several different types of groups participate in field or activity trips. Each group may have one (1) or more different types of group leaders. Typical groups and group leaders would include:

- team/coach;
- class/teacher; or
- group/chaperons.

On field and activity trips, responsibilities are shared between the driver and the group leader and/or chaperone. The transportation supervisor also has certain responsibilities to determine whether road conditions are such that it would be safe or practical to travel.

DRIVER

- Obey all safety regulations.
- Review with the students the emergency evacuation before the beginning of the trip or, if needed, conduct an evacuation drill.
- Maintain passenger control.
- Control emergency situations.
- Maintain safe vehicle condition.
- Select rest, food and fuel stops.
- Ensure the eight (8) way warning lights, stop arm and crossing control arm are activated at any time students are loading or unloading, to include school grounds.
- Properly secure all cargo in the luggage box.
- Complete the headcounts.

GROUP LEADERS AND/OR CHAPERONES

KRS 161.185 requires that a certified or classified member of the staff accompanies students on school-sponsored or endorsed trips. There is a special exception that should be reviewed for athletic trips. There needs to be a chaperone on each bus as the chaperone will know the students and will be able to assist with their excitement.

The group leader/chaperones role is to:

- Relay the trip plans and safety precautions.
- Provide passenger information.
- Maintain passenger control.
- Provide supervision at stops.
- Field trip activity.
- Headcounts.
- Provide passenger instructions.
- Properly group students together.

DIRECTOR/SUPERVISOR

Vehicle(s) and driver ability. Remember on all out of district trips, the bus can only be at 2/3 capacity when transporting middle school or high school students.

The director/supervisor role is to:

Provide necessary time for planning.
Know where to communicate with driver in emergency situations.

Ensure the driver and chaperones are aware that any and all equipment, luggage, coolers, or other items are transported under the bus. These items shall not be on the bus as they become extremely dangerous in an accident. At no time is a trailer to be towed by the bus while students are on board. This should be towed by a separate vehicle.

PROBLEM CAUSING SITUATIONS

Problems may arise while on a field or activity trip because of the nature and length of the trip. Unless plans are made and precautions taken, passenger behavior problems may arise which could get out of control.

The following conditions should be identified:

Fatigue – the driver should plan to have enough rest and comfort stops to avoid problems arising from this condition. There should be no more than ninety (90) minutes between stops. Driver fatigue should also be considered.

Excitability – drivers should recognize that this will occur because of the nature of the trip. An opportunity should be provided for students to vent some of this excitement before an effort is made to restrain them. The group leader or chaperone should handle problems arising from these situations.

Depression – driver should recognize that this condition could occur and call it to the attention of the group leader or chaperone. The group leader or chaperone should be alerted and deal with this condition on a one-to- one basis with the student(s).

Discomfort – the driver should be alerted for conditions which could lead to student discomfort. The temperature of the bus should be closely monitored, and enough fresh air should be provided.

Lack of understanding– driver should discuss with the group leader or the chaperone the guidelines that are to be followed during the field trip. The group leader or chaperone and the driver should discuss these with the students before the trip begins.

SUMMARY

During this unit, we have examined several topics which are necessary to consider when planning and conducting any field trip. If adequate attention is paid to planning the trip and precautions are taken to avoid problem producing situations, the field trip should be a pleasant experience for all concerned. However, without it, things can easily get out of hand. Be prepared and enjoy a pleasant trip.

CHAPTER 9

TRANSPORTING STUDENTS WITH SPECIAL NEEDS

OBJECTIVE

- Understand the importance of communication.
- Identify the physical characteristics and behavior tendencies of special needs students.
- Describe loading/unloading procedures.
- Describe student management techniques.
- Identify ways to communicate with special needs students.

INTRODUCTION

Special needs drivers or assistants should be properly trained by a medical professional regarding the specifics of each child. A school bus driver has a unique opportunity to provide a positive influence on the lives of special needs students as they are being transported. Many basic tasks of meeting personal care needs, communicating and socializing with others and physically moving from one location to another are major accomplishments for these students. By providing an atmosphere of friendly assistance and responding to their individual and group needs, a driver is in a position to become an important part of the student's efforts to reach their potential.

The success of a program for exceptional children depends upon the people who have daily contact with the children. They should be patient, alert, flexible, resourceful, enthusiastic, emotionally stable, have personal warmth, friendliness, understanding and compassion. A bus driver should be able to develop and maintain rapport with children and be able to exercise mature judgement in relation to both the care of exceptional children and the responsibilities of driving.

A driver should be able to accept each child and their unique situations. These children should be treated as a person would treat their own children with special needs. The daily bus ride to school

can be an important part of the child's progress toward accomplishment of their goals. The bus rules should be explained simply and presented in manner appropriate with the student's cognitive level. Be prepared to review these rules frequently as some students may need many reminders to be successful. The bus ride to and from school can be a pleasant experience which a child anticipates eagerly, or it can become a stressful experience. The driver should be thoughtful and careful about such routine matters as assigning a seat or seatmate, the presentation and purpose of a seatbelt and student management.

Special needs students may have different needs compared to their typical peers. This can be a challenge to student transporters. Below is a guide that can assist. Remember, each child is unique and may require some deviation to the guide.

REMEMBER:

- Be firm – but gentle.
- Be patient – but persistent.
- Always be consistent and fair.
- Be flexible when possible.

The driver's primary purpose is to take children to and from school safely and dependably. While allowances are made for specific situations, the safety of the students is the number one consideration.

COMMUNICATION

It is difficult to give guidelines for handling all situations. As a driver for special needs students, there will be specific training provided for each student you transport. You should know about the needs and abilities of the students, and the best way to learn these is through communication with school staff.

Below are general expectations that will assist you with working through any communication issues you may come across. You will want to work with the following people to help resolve them.

- School nurse
- Teachers, they may have insight into your issue
- Parents
- Student
- School specialist

PARENT – DRIVER

Drivers and parents should discuss safety rules on the bus, special equipment usage, schedules and transporting medication as various needs require various plans.

LIFTING AND/OR CARRYING STUDENTS

There are several safe and effective ways to lift a child. The driver will be able to learn these techniques by conversation and application with school specialists. These techniques will vary depending on each child's needs.

SPECIAL EQUIPMENT

Due to varied disabling conditions, all seats have rolled padded tops and sides to help reduce chances of pupil injury on panic stops. Foam seats provide more secure seating. Modesty panels and stanchion posts should be added. Seatbelts on school buses are recommended for the safety of all special needs students.

Besides operator qualifications, a driver should be able to operate specially equipped or adapted vehicles. The driver should become familiar with the use of wheelchairs, braces, crutches, etc.

MEDICAL NEEDS INFORMATION

The driver should be aware of the unique needs of each student on their bus. They should be familiar with the medical and physical aspects of disabilities and know when a child is on medication and the effects of that medication. This will help the driver to determine when a child is portraying behaviors that are out of the ordinary. Transportation staff should keep a copy of the student's health care plan on the bus, and it should be reviewed frequently. This plan should include instructions for the student transporters in the event of a medical emergency.

The driver has the responsibility of reporting to school authorities or to parents specific incidents, attitudes, behaviors, etc., which may be significant in the treatment of the child. They should know and understand what special steps to take in case of a traffic incident or breakdown. The comfort and emotional well-being of the children is the driver's responsibility. A driver may spend significant time learning how to care for each child under the many circumstances that might occur while the children are on the bus.

SEIZURE MANAGEMENT

Be sure to follow district procedures for emergencies to prevent injury to the child.

1. Observe the progression of symptoms during the seizure. Note the:
    a. the time event began
    b. the first thing the child does in an attack, in regards to movements
    c. types of movements of the part involved (stiffness starts, the position of eyeballs and head)
    d. body parts involved
    e. size of the pupils
        i. incontinence of urine and feces
    f. duration of each phase of the attack
    g. unconsciousness, if present, and its duration
    h. any obvious paralysis or weakness of arms or legs after the attack
    i. inability to speak after the attack
    j. whether or not the child sleeps after the attack
2. Support the child during the convulsive seizure.
    a. Ensure the child has an adequate airway
    b. Speak calmly to the student, reminding them that they are safe and that you are with them
    c. Give the child privacy and protection from curious on-lookers
    d. Protect the head with padding to prevent head injury
        i. Towels, blankets, coats, clothes or book bags can be used

ii. Loosen constrictive clothing
iii. Protect from the possibility of suffocation

e. When the jaws are clenched in a spasm, DO NOT attempt to pry open to insert a mouth gag
f. Place child on his/her side during convulsion (if possible) to facilitate drainage of mucus and saliva. Do not attempt to lift the child during the seizure; to do so may cause injury. Instead of moving the child during a seizure, remove things that could cause injury.

3. Once convulsive movements have stopped, allow the child to recover naturally. When appropriate (when the child awakens), reorient the child to his/her environment.

TYPES OF SEIZURES AND THEIR CLINICAL MANIFESTATIONS

AURA

a. Small localized seizures that sometimes precede grand mal seizures and act as a warning.
b. The child cannot explain them but knows they exist.
c. May include vague symptoms such as irritability, headache, gastrointestinal disturbances or mental dullness, visual disturbances or light sensitivity.
d. The interval between the aura and grand mal seizure is usually short, but it may be an hour or more than a day.

GRAND MAL

a. Onset
    - Onset is abrupt.
    - May occur at night.
    - An aura occurs in about one-third of epileptic children prior to a grand mal seizure.
b. Tonic Spasm
    - The child's entire body becomes stiff.
    - The child usually loses consciousness.
    - The face may become pale and distorted.
    - The eyes are frequently fixed in one position.
    - The back may be arched with the head held backward or to one side.

- The arms are usually flexed with the hands clenched.
- The child may bite his/her tongue or cheek. (This occurs because of a sudden forceful contraction of the jaw and abdominal muscles.)
- The child is often unable to swallow his/her saliva.
- Breathing is ineffective and cyanosis (turning blue) results if spasm includes the muscles of respiration.
- The pulse may become weak and irregular.

c. Clonic Phase
   - This phase is characterized by twitching movements that follow the tonic state.
   - Phase usually starts in one place and becomes generalized, including the muscles of the face.

d. Duration
   - Length varies.
   - Usually, convulsions cease after a few minutes and consciousness returns.

e. Post-Convulsive State of Child
   - The child is usually sleepy or exhausted.
   - May complain of a headache.
   - May appear to be in a dazed state.
   - Often performs relatively automatic tasks without being able to recall the episode.

PETIT MAL

a. Petit mal onset rarely appears before three (3) years of age.

b. Clinical Signs
   - Loss of contact with the environment for a few brief seconds. May appear to be staring or daydreaming and will suddenly discontinue any activity and resume it when the seizure has ended.
   - Minor manifestations include rolling of the eyes, nodding of the head, sucking the tongue and slight quivering of the trunk and limb muscles.

c. Duration is usually less than thirty (30) seconds.

d. Frequency varies from one to two per month to several hundred each day.

e. Post convulsive state of the child:

- appears normal; and
- the child is not aware of having had a convulsion.

FOCAL SEIZURES (PSYCHOMOTOR)

a. Clinical Signs
   - Child undertakes purposeful but inappropriate motor acts.
   - Child may pick at clothing with hands.
   - Child may make chewing movements with mouth or perform other complicated actions.
   - A young child may emit a shrill cry or attempt to run for help. There is usually a gradual loss of postural tone.
   - May have pallor around mouth.

b. Duration is brief, usually about one minute.

c. Post-Convulsive State of Child
   - Child may be confused after a seizure, but has no "memory of what happened."

FOCAL MOTOR (JACKSONIAN SEIZURES)

a. Clinical Signs
   - Sudden jerking movements occur in a particular area of the body such as the face, arms or tongue (less often the leg or foot).
   - Seizure begins on one side of the body and spreads to adjacent areas on the same side in a fixed progression.
   - Prognosis: seizure may become more extensive as the child matures, leading to grand mal seizures.

b. Focal Sensory (rare in children)
   - Sensations may occur, such as numbness, tingling and coldness.

<u>OBSERVE FOR RECURRENT SEIZURES</u>

1. Place the child where he/she can be watched closely.
2. Check child frequently.
3. Watch for and report to school or parent(s) /guardian(s) if you see:

a. behavior changes
b. irritability
c. restlessness and/or
d. listlessness

CARE DURING A SEIZURE

1. Maintain patient airway and adequate ventilation.
    a. Loosen tight clothing (belt, collar, etc.); turn the child onto their side to facilitate drainage or turn head to the side and point chin downward. This allows saliva and mucus to run out of the mouth and not be aspirated; the tongue will drop forward away from airway. During convulsions, the child is unable to swallow. This increases the possibility of aspiration because vomitus and increased secretions are frequently present.
2. Do not attempt to forcibly open a convulsing child's mouth if their jaws are clenched.
3. Do not attempt to push an airway or tongue blade forcibly between front teeth. To do so may break or loosen teeth or injure lips.
4. Never put your fingers into the child's mouth; the child may accidentally bite you during the seizure.
5. Do not attempt to restrain the child's movements during convulsions.
    a. Restraint may increase the movements and their severity and could cause fracture if extreme spasticity is present.
    b. Lightly hold the child's hands to prevent him/her from banging them.

DEFINITIONS AND DESCRIPTIONS

Physically Disabled or Orthopedically Impaired

Severe orthopedic impairment which adversely affects educational performance to the extent that specially designed instruction is required for the pupil to benefit from education. These students have a range of physical or health problems. Some are able to work full-time in the general (comprehensive) education program and need only special transportation and an architecturally accessible building. They are taught to lead productive, independent lives by learning to

compensate for their physical disabilities.

Other Health Impaired

Limited strength, vitality or alertness, due to a chronic or acute health problem, which adversely affects educational performance to the extent that specially designed instruction is required for the pupil to benefit from education. These students are medically fragile and/or chronically ill and may need the environment of a special classroom. They are taught to compensate for their physical disabilities to the extent possible in order to lead productive, independent lives.

Communication Disorder – Speech/Language Impaired

Disorder in language, articulation, voice or fluency, which adversely affects educational performance that specially designed instruction is required for the pupil to benefit from education. The student may have any or all of the following problems: does not pronounce words clearly, stutters, does not understand what people say to him/her, and/or is unable to put his/her thought into words.

Hearing Impairment

Physiological hearing loss ranging from mild to profound, permanent or fluctuating, and of such a degree that the pupil is impaired in the processing of linguistic information via the auditory channel either with or without amplification, adversely affecting educational performance so that specially designed instruction is required for the pupil to benefit from education. These students have a range of hearing loss from mild to profound. All of them are encouraged to communicate through speech that may be somewhat difficult to understand. They are also expected to speech read ("read lips") as much as possible so they will be able to communicate with non-handicapped persons. Some students supplement their speech with various types of manual (hand) signing. It is easier for them to speech read if the person if facing them and speaks at a normal (not slowed) rate. (A mustache/beard sometimes makes speech reading more difficult.) Many hearing-impaired students have some speech, but have difficulty discriminating between speech and background noises. Many hearing impaired students have hearing aids and should be encouraged to wear/use them at all times.

Mental Disability

Deficit or delay in intellectual or adaptive behavior functioning, which adversely affects educational performance so that specially designed instruction is required for the pupil to benefit from education.

Emotional-Behavioral Disability

Behavioral excess or deficit, which significantly interferes with a pupil's interpersonal relationships or learning process to the extent that it adversely affects educational performance, so that specially designed instruction is required. The major problems these students have are usually those of controlling their own behavior and interacting appropriately with adults and peers. They may over-react to apparent trivial situations. They may also be defiant of authority – especially in front of their peers and may "test" an adult to find out if misbehavior will be tolerated. They need to be given – before an incident occurs – very specific directions as to what is expected of them. It is helpful to establish a few rules. It is better to state rules in terms of what they should do (e.g., "Keep your hands inside the bus.") rather than what they should not do (e.g., "Do not put your hands outside the bus." Do not make idle threats; if consequences have been previously established for a specific misbehavior, they must be capable of being carried out. Some students are on a behavior management program and are rewarded when the bus driver reports to the teacher that their bus behavior has been acceptable.

Multiple Disability

A combination of two or more disabilities resulting in significant learning, developmental or behavioral and emotional problems. Adversely affect educational performance to the extent that specially designed instruction is required for the pupil to benefit from education.
Students in this category have a combination of two or more handicapping conditions – physical and/or mental. The students within this category do not all have similar needs. Their programs are specially designed to match their needs and abilities.

Specific Learning Disability

Disorder in one or more of the psychological processes. Primarily involved in understanding or using spoken or written language which selectively and significantly interferes with the

acquisition, integration or application of listening, speaking, reading, writing, reasoning or mathematical abilities. This disorder is lifelong. Intrinsic to the individual, it adversely affects educational performance to the extent that specially designed instruction is required for the pupil to benefit from education. This term does not include a learning issues which is a direct result of a hearing impairment; visual, physical, mental or emotional-behavioral disabilities or environmental, cultural or economic differences. These students have difficulties in one or more specific areas, such as motor skills or reading, writing, or mathematics. Their problems are mostly academic, but sometimes their frustration with avoidance of academic tasks can result in mild behavior problems. These students tend to learn each thing in isolation, rather than applying their knowledge to many situations, and the students tend to act on impulse without considering the consequences.

Visually Impaired

Visual impairment which, even with correction, adversely affects educational performance to the extent that specially designed instruction is required for the pupil to benefit from education. Very few of these students are totally blind. Most have some usable vision and can see shapes, shadows, and other clues that help them to move through their surroundings. They are taught to use their senses of touch and hearing to provide the additional information they do not receive with their eyes. While some read Braille materials, most can use large print textbooks or other enlarging devices.

Traumatic Brain Injury

Acquired impairment to the neurological system resulting from an injury to the brain, which adversely affects educational performance to the extent that specially designed instruction is required for the pupil to benefit from education. Traumatic Brain Injury does not include a brain injury that is congenital or degenerative, or a brain injury induced by birth trauma. These students have experienced some injury to the brain and exhibit a wide range of mental and physical abilities. These students will have shorter attention span, short-term memory loss or lack of concentration. Mild behavior problems may result. Due to the nature of the injury, students have individual needs.

Autism

Developmental disability significantly affecting verbal and non-verbal communication and social interaction, generally evident before age three. Autism can adversely affect education performance to the extent that specially designed instruction is required for the pupil to benefit from education.

Characteristics include:

- irregularity and impairment in communication
- engagement in repetitive activity and stereotyped movement
- resistance to environmental change or change in daily routine
- unusual responses to sensory experiences.

This does not include children with characteristics of an emotional-behavioral disability. The student displaying "autistic" or "autistic-like" behaviors may have difficulty developing and using verbal or nonverbal communication systems making it difficult to use traditional methods of interaction. The student may engage in repetitive motions or behavioral patterns and perhaps will be sensitive to being touched. Specific behavior modification techniques are needed to elicit the most correct behavior, making it important for the transportation staff to conference with the student's teacher regarding appropriate interventions.

BEHAVIOR PATTERNS

Behavior patterns of each child are individual situations and need be understood. Each driver must treat each child separately. A student may behave differently from day to day because of medication

> For example, don't give a general direction to the entire bus load of children. You can't assume everyone would understand this direction.

Behavior patterns of a special needs child for any given day or hour of the day can be caused or changed by the actions of others around them to include the:

- school bus driver
- parents, or members of the family
- teacher or aide
- other bus students.

Sudden changes or disruptions can trigger behaviors that a special needs child may already have. The person managing the student should try to understand, if possible, what may have caused the problem and try to correct it. When a child is corrected, regardless of the age and size, take into consideration their attention span. With some children, this can be rather short. Short, specific instructions should be given. Be consistent when you correct a child.

TRANSPORT

Maintain a set of clear rules. Make a short list of rules concerning behavior while riding the bus and following them to the letter. The child wants to know where they stand. Remember, once children begin to misbehave, they may not be able to help themselves – you must help them. Any deviation from these rules will only confuse the child. Be firm, but fair, smile often child, but be direct when you address them.

You could be the key to the pupils' whole day! You are the first school authority to see them in the morning and the last to see them at night. Say "Good morning!" and let them know that you are glad to see them and want them to ride on your bus.

If a child is on a medication, you must know the effects of the medication and what to do if it should wear off. Medications should never be left on the bus but should be handed off to the receiving adult of the child. A signature release form should be signed whenever medication is received or handed off by the driver.

You must be resourceful in discipline areas.

LOADING AND UNLOADING

Most transportation systems load and unload special education children in front of each child's home because the children cannot be left unattended. These children sometimes need assistance to board the bus. Eye-to-eye contact with some children is a must, where others may require no eye-to-eye contact.

Care is needed at all times to keep these children on the bus when other children are being loaded or unloaded. A child who must use special equipment such as a wheelchair, braces, crutches, etc., may have difficulty during the loading and unloading process. As the driver, you must know how to correct any issue they may have.

Remember, c**a**re and protection are two things that the parents and children expect from a driver. Usually, you will follow the same loading and unloading procedures for controlling the bus as you would when transporting any other student.

PROCEDURE FOR OPERATING LIFT EQUIPMENT

1. The bus must be in neutral, emergency brake on.
2. Open the lift doors and hook latches on the outside wall of the bus.
3. Remove the hand-held controls and push the long lever down to unfold the platform. The platform will be flush with the floor of the bus.
4. Press the “lower platform” button.
5. Lower the platform to ground level, make sure the hinge releases the barrier.
6. Roll the wheelchair backward and lock hand brakes.
7. Place your hand on the wheelchair to give the student a secure feeling.
8. Press the “raise platform” button, making sure the barrier locks in place. The platform will rise to the bus floor level.
9. Pull the wheelchair into the bus and secure it.
10. Fold the platform back into the bus and shut the doors.
11. No one may ride on the lift with a student.

AIDE ASSISTED

1. Be sure each person knows his/her role. In the case of misunderstanding, don’t argue. Carry on any discussion out of the student’s presence.
2. Direct the aide to carry or guide the student onto the bus. When appropriate, an adult is allowed on the bus with written permission from the superintendent.
3. When the use of assistive devices is required, check to see that they are securely fastened

before putting the bus into motion.

4. When specially equipped buses are used to accommodate wheelchairs, etc., with the use of a ramp or lift, supervise the aide in guiding chair onto the bus and secure it in place inside the bus.
5. When loading or unloading, the driver must be on the bus.
6. Check to see that the ramp and side door have been securely fastened into a locked position after the student has entered the bus. Start the bus and follow the procedure for entering the flow of traffic.

NOT AIDE ASSISTED

1. Set the parking brake, secure the bus in "park," turn off the motor and take the key out of the ignition.
2. When appropriate, an adult is allowed on the bus with written permission from the superintendent.
3. Leave the bus and carry or guide the handicapped student onto the bus. The student should be brought to the bus by a parent or other responsible person.
4. Check to see that the ramp and side door have been securely fastened into a locked position after the student has entered the bus. Start the bus and follow the proper procedure for entering the flow of traffic.

UNLOADING

SCHOOL GROUNDS

1. When appropriate, an adult is allowed on the bus with written permission from the superintendent.
2. Carry or guide each student off the bus into the charge of a teacher or school attendant.
3. Check to see that all belongings of each student are taken off the bus.

HOME

1. When appropriate, an adult is allowed on the bus with written permission from the superintendent.
2. Carry, or guide, each student off the bus into the charge of a parent or other responsible

person.

3. Check to see that all belongings of each student are taken off the bus.
4. Report tactfully to the parent and school officials any observation, which may be inappropriate, whether medical or behavioral.
5. If an authorized person is not at home to receive the student, follow local procedures.

DUTIES ON THE ROAD

1. Assign the bus aid to ensure that all students remain safely seated.
    a. Occasionally a particular student's needs require more than you can provide as one who must be responsible for the safety of all students.
    b. Do not allow students to continually demand your attention when you are driving.
2. If any students show symptoms of illness that require immediate attention, pull the bus as far off the road as possible and stop; activate four-way hazards lights.
3. If a radio or phone is available, notify the proper authorities; otherwise, notify the aide or passing motorist to call authorities from an available phone.
4. Watch for unusual behavior that may occur; for example, petit mal or grand mal seizures, erratic behavior or inactivity, etc.

STUDENT INFORMATION

A driver must have pertinent information about each of the students and be an observer of behavior on the bus. A driver is often the source of information, which is vitally important to the supervisor, the student's teacher, and parents. Some students will have medical instructions specifying special care or medication limitations. Information about each student shall be kept secure. Make a confidential card file form to be kept on the bus when children are on board and in the supervisor's office. A 3" X 5" card is suggested. See below:

	Name:
	Address:
	Telephone#:
	Emergency Back Up #:
	Birthdate:
Parents:	
Medication:	
Hospital:	
Doctor:	
Doctor Phone #:	
Insurance:	
Special Instructions:	
Map where child lives may be put on back.	

CHAPTER 10

FIRST AID

OBJECTIVES

A driver will:

- Understand the basic principles of first aid and their immediate responsibilities.
- Know the steps to follow for choking.
- Know the procedures to control bleeding.
- Recognize and administer treatment for shock, fainting, heat exhaustion, nosebleeds, fractures, and seizures.
- understand bloodborne pathogens and exposure control

INTRODUCTION

First aid is the immediate and temporary care given to a victim of an incident or sudden illness until further medical services can be obtained. The primary objective of first aid is to save lives. A school bus driver must know how to administer basic first aid. In an emergency, an error could have disastrous consequences to the patient. It is as important to know what to do as what not to do. A person will respond more quickly to treatment if he/she recognizes that a competent person is administering the first aid.

It is necessary for you to know and understand what you are and are not trained to do. Know your limits and when to call for help.

EVALUATING THE SITUATION – SETTING PRIORITIES

To effectively deal with emergencies, the situation must be evaluated, and priorities set. Three (3) evaluations, which must be made to establish priorities for treatment are:

- the condition of the scene;
- the type of the injury; and
- the need for treatment.

The primary first aid procedures are:

- to restore breathing;
- to control bleeding; and
- prevent shock

The most urgent action following an incident is to remove everyone from danger. Several types of situations are of high priority; such as fires, electrocution and drowning. Do not give aid until everyone is safe. Do not attempt to make a rescue until you are sure you will not become a victim. Use gloves anytime body fluids are being touched.

Always follow school district protocol when providing first aid. School authorities should always be notified of any incident or injury that occurs while students are being transported.

EMERGENCY MEDICAL SERVICES (EMS) SYSTEM

An EMS system is community-wide, coordinated means of reporting an incident or sudden illness. The EMS system is activated by calling 911. When you call for help, give the following information:

- Where the emergency is, with cross streets, if possible.
- Phone number you are calling from.
- What happened – bus incident, fall, etc.?
- How many people need help?
- What is being done for the victim?

CHOKING

Choking is the number one reason food and drink are not allowed to be consumed on the school bus. A student may easily choke on something while on stable ground, but to add a moving vehicle to the equation makes things more difficult. A driver must pull the bus over to a safe location before tending to the child, losing precious time in the rescue process.

If you suspect a student might be choking, you will want to look for signs such as their hand around their throat, lips and fingertips turning blue, difficulty in breathing, coughing, or loss of consciousness. A student may panic, and you will need to help keep them calm by staying calm yourself.

If the student is coughing, let them continue to cough to try and dislodge whatever is blocking their airway. If they can't talk or cough forcefully, the American Red Cross recommends a "five-and-five" approach to delivering first aid:

- **Give 5 abdominal thrusts.** Perform five abdominal thrusts, also called the Heimlich maneuver.
- **Alternate between 5 blows and 5 thrusts** until the blockage is dislodged.

Note: Back blows are not recommended by the American Red Cross for anyone except very small infants. Contact your regional red cross for current information on this matter.

BLEEDING

Bleeding requires immediate attention. If a person is bleeding intensely, he/she can die in less than two (2) minutes. The loss of a pint of blood by a child and a quart by an adult may have disastrous results. Even the loss of a small amount of blood produces weakness and possibly shock. Evaluate the type of bleeding and the blood loss.

EVALUATION OF BLEEDING

There are three types of bleeding (hemorrhage). Blood can come from the capillaries, veins, or arteries.

1. Capillary bleeding comes from injuries to capillaries or small veins. It is indicated by steady oozing of dark-colored blood.
2. Venous bleeding comes from a vein and is indicated by a flow of dark colored blood at a steady rate.
3. Arterial bleeding comes from an artery and is indicated by bright red blood flowing quickly in spurts or jets. It will spurt out with the heartbeat. Arterial bleeding may be mixed with venous bleeding.

Bleeding can be external or internal. External bleeding is the bleeding you can see. Internal bleeding often has no outward indication. Tender, swollen, bruised or hard areas of the body, such as the abdomen may indicate there is a possibility of internal bleeding. If the person collapses or has anxiety, marked paleness of the skin, rapid breathing, rapid and weak pulse, restlessness and thirst, the person could be in shock from internal bleeding.

CONTROL OF BLEEDING

The primary step to control bleeding is to exert direct pressure over the wound. As a universal precaution, use protective gloves in situations involving blood or body fluids.

A dressing is the immediate protective cover placed over a wound. A bandage is a strip of woven material used to hold a dressing or compress in place. It may also be used to hold a splint in place.

Make sure there are no foreign objects in the wound prior to applying direct pressure. Using the gauze in the first aid kit, or the cleanest material available, hold it against the bleeding point and apply firm pressure. Raise and support the injured area, if it is not broken, above the heart if possible. Apply a bandage to hold the gauze/material in place. If the material/bandage is used and blood soaks through it, do not remove it. Apply additional bandages and secure them in place. Be sure the bandage is not too tight.

ARTERIAL PRESSURE POINTS

If direct pressure on the wound does not control bleeding and the student is in extreme danger of losing their life due to a loss of blood. At this point, direct pressure on the arterial pressure point closest to the wound may be necessary. The arterial pressure point must be located between the heart and the wound, putting the pressure closest to the heart. By applying pressure to an artery, you are stopping the bleeding by putting the artery against the bone. Press down firmly on the artery between the bleeding site and the heart.

You will know you have the artery because you will be able to feel the pulse. Do not apply pressure for more than 10 minutes.

Common pressure points include:

1. Temporal- located above the ears, in line with the corner of the eyes. This is used for bleeding on the head, above the ears.
2. Facial – located in the small crevice one inch (1”) from the angle of the jaw. When you use a pressure point, keep using direct pressure. This is used for bleeding on the lower part of the face.
3. Carotid – located between the Adam’s apple and neck muscles. This is used for bleeding in from the neck.
4. Subclavian – located in the hollow area near the collarbone. This is used for bleeding that is high on the arm.
5. Brachial - located on the arm between the shoulder and the elbow, approximately three inches (3”) below the armpit. This is used for bleeding low on the arm.

6. Lunar- located on the wrist, where you feel the pulse.
7. Femoral - located in the groin area, along the bikini line. A lot of pressure is required to control this bleeding. It may require the use of both your hands. This is used for bleeding in the thigh area.
8. Popliteal – located behind the knee. This is used for bleeding from the lower leg below the knee.

TOURNIQUET

A tourniquet is a last resort option. It is rarely required and should be used only for severe, life-threatening hemorrhaging that cannot be controlled with direct or arterial pressure. It is dangerous to apply, dangerous to leave on and dangerous to remove. It will cause tissue injury and stoppage of the entire supply of blood to the part below it. This can cause gangrene and could result in the loss of a limb.

SCHOOL BUS FIRST AID KIT

Gauze Compress – Use as a dressing or padding for a splint.
Bandage Compress – Compress and bandage attached.
Triangular Bandage – May be used as a sling for a fracture or other injury of the arm or hand. May be folded and used as a circular, spiral, or figure-eight bandage.
Adhesive Bandage – Band-Aid
Gauze Bandage – To be used around the body or limb to hold the compress in place.
Scissors and Tweezers

SHOCK

Shock is a condition in which the circulatory system fails to deliver blood to all parts of the body. Shock may be fatal even though the injury which causes it may not be enough to cause death. Shock can be made worse by extreme pain and fright. Call your local emergency number immediately. Shock can't be managed effectively by first aid alone. A victim of shock requires advanced medical care as soon as possible.

THREE (3) very common causes of severe shock are:

- inadequate breathing;
- excessive bleeding; and
- un-splinted fractures.

Treating these problems lessens the shock.

SYMPTOMS OF SHOCK

- Skin is pale, cold and clammy with small drops of sweat particularly around the lips and forehead.
- Restlessness or irritability may occur.
- Nausea and dizziness may be present.
- Pulse may be fast and weak, or absent.
- Breathing may be shallow and irregular.
- Eyes may be dull with enlarged or dilated (larger) pupils.
- Altered consciousness may occur.
- Victim may be unaware of the seriousness of the injury, then collapse.

OBJECTIVES and TREATMENT

- Improve circulation of blood.
- Ensure an adequate supply of oxygen.
- Maintain normal body temperatures.

BODY POSITION

Standard position – lying on back, feet elevated six to twelve inches (6" –12") – unless you suspect a head, neck, or back injuries or possible broken bones involving the hips or legs). If you are unsure of the victim's condition, leave him/her lying flat. A victim who is bleeding from the mouth or vomiting should lie on one side so that fluid will drain from the mouth.

REGULATING BODY TEMPERATURE

Keep the victim warm enough to avoid or overcome chilling. If the victim is exposed to cold or dampness, blankets or additional clothing should be placed over and under him/her to prevent chilling.

ADMINISTERING FLUIDS

Do not give the victim anything to eat or drink, even though he or she is likely to be thirsty.

FAINTING

Fainting is the partial or complete loss of consciousness due to a reduced supply of blood to the brain for a short time. A person may collapse suddenly without warning. Recovery of consciousness almost always occurs when the victim falls or is placed in a reclining position.

SIGNS AND SYMPTOMS

- extreme paleness;
- sweating
- coldness of the skin;
- dizziness;
- numbness and tingling of the hands and feet;
- nausea; and/or
- possible disturbance of vision.

Note: To protect against a fainting spell, have the patient sit with their head between the knees.

FIRST AID FOR FAINTING

Leave the victim lying down.

Loosen any tight clothing and keep crowds away.

If the victim vomits, roll him/her onto their side and, if necessary, with gloves wipe out his/her mouth with your fingers.

Maintain an open airway.

Do not pour water over the victim's face because of the danger of aspiration; instead, bathe the face gently with cool water.

Do not give any liquids unless the victim has revived.

Examine the victim to determine if they have suffered an injury from the fall.

HEAT EXHAUSTION

Heat exhaustion is the most common heat related illness. During the summer and early fall, many students may fall into this category due to dehydration and other reasons. Heat exhaustion can lead to heat stroke. Most school buses do not have air conditioning and having the windows and emergency vents open are important.

Signs and symptoms include:

- Cool, moist skin with goose bumps when in the heat
- High body temperature
- Heavy sweating
- Faintness or dizziness
- Lethargy or fatigue
- Weak, rapid pulse and shallow breathing
- Low blood pressure when standing up
- Muscle cramps
- Vomiting
- Headache

FIRST AID

Lower the body temperature by:

- Move the victim to a cool place, out of the heat into an air-conditioned place.
- Fan the victim.
- Remove heavy/tight clothing.
- Cool the person by spraying or sponging with cool water and fanning.
- Have the person drink cool water or other beverage without caffeine.
- Lay them down and elevate their legs and feet.

NOSE BLEEDING

- Place the victim in a sitting position. Have the victim lean forward.
- Loosen the collar and anything tight around the neck.

- Give the victim a compress to hold over their nose.
- Apply pressure directly at the site of the bleeding by pressing the bleeding nostril toward the midline.
- Do not allow the victim to blow their nose.

If bleeding continues, the victim should insert a small, clean pad of gauze (not absorbent cotton) into one or both nostrils and apply pressure with thumb and index finger.

FRACTURES AND SPLINTING

A closed fracture is an injury beneath the skin and may be difficult to detect. Do not move or have the victim move any body parts. The signs of a closed fracture are pain, swelling, deformity and discoloration.

An open fracture is usually much more serious than closed fractures because of the amount of tissue damage, bleeding and danger of infection. Do not try to push a bone end back inside the skin.

SPLINTING

- Only if the victim must be moved or transported by someone other than emergency medical personal.
- Only if you can do it without causing more pain and discomfort to the victim.
- Splint in the position you find it.
- Splint the injured area and the joints above and below the injury.
- Check for proper circulation before and after splinting.
- It may be necessary to stop any associated bleeding and treat for shock.

EPILEPSY AND OTHER SOURCES OF CONVULSIONS

The two (2) major signs of a serious epileptic attack are convulsions and loss of consciousness. A mild attack may last only a second and may not be noticed by others. First aid for epilepsy is the same as for other convulsions with the primary effort being made to prevent the victim from hurting himself/herself.

- Push away nearby objects.
- Do not force a blunt object between the victim's teeth.
- When jerking is over, loosen the clothing around the neck.
- Keep the victim lying down.
- Keep his/her airway open.
- Do not try to restrain the victim. Jerking motions and/or foaming at the mouth may often occur.
- If breathing stops, give artificial respiration.
- Allow the victim to sleep or rest following the seizure. Do not question, disturb or embarrass the victim.
- Assure all bystanders that the victim will not harm anyone.

BLOODBORNE PATHOGENS

Bloodborne pathogens are micro-organisms in the bloodstream that can cause disease. The two (2) diseases that are of major concern in the work environment are Hepatitis B and HIV (AIDS). Bloodborne pathogens are found in blood and blood products such as semen, vaginal secretions, breast milk, and other body fluids. Only blood, semen, vaginal secretions and breast milk have been proven to transmit the HIV virus. HIV is a more lethal virus, yet Hepatitis B is more contagious. HIV and Hepatitis B can only be transmitted if the exposed blood is infectious and that blood can enter directly into the body.

Blood or other infectious material could enter the body through:

- unprotected openings in the skin such as cuts, scrapes, and dermatitis;
- unprotected mucus membrane openings such as the eyes, nose, and mouth; and/or
- penetration into the skin by a sharp object such as broken glass, a needle, or a knife blade.

Drivers should always use the "Body Fluid Clean-Up Kit" when dealing with blood or body fluids such as vomit and report any exposure to their supervisor. Kits usually include items such as disposable gloves, spatulas, a contaminated materials bag and germicidal antiseptic wiping cloths. Employees should consult their school district's "Exposure Control Plan Reference Procedures and Universal Precautions" relating to Blood borne pathogens. All drivers should

receive training for occupational exposure.

SUMMARY

There are many other medical issues that may arise on a school bus or at the scene of an emergency. Only a few critical issues have been dealt with in this unit. All drivers should be trained by a certified professional in proper first aid procedures.

Drivers should remember that above all know the limits of their capabilities and make every effort to avoid further injury to the victim in an attempt to provide the best possible emergency care. Follow all district procedures and call EMS when necessary.

CHAPTER 11

COMMERCIAL DRIVER'S LICENSE (CDL)

OBJECTIVE

- The driver will be knowledgeable of federally mandated CDL Law.

INTRODUCTION

This unit will discuss the various aspects of the federally mandated CDL law, which affect anyone with a CDL. If you live in Kentucky and want to drive a commercial motor vehicle on public roads, you must have a Kentucky commercial driver's license unless you are expressly exempt. Much of this information may not pertain to driving a government owned school bus, but as a CDL holder, you must be aware of the information. In the future, if you drive a school bus that is not government owned, or any other commercial motor vehicle, this information will pertain to you.

LICENSE CLASS

Commercial motor vehicle means any self-propelled or towed motor vehicle used on a highway in interstate commerce to transport passengers or property when the vehicle:

- Has a gross vehicle weight rating or gross combination weight rating, or gross vehicle weight or gross combination weight, of 4,536 kg (10,001 pounds) or more, whichever is greater: or
- Is designed or used to transport more than 8 passengers (including the driver) for compensation.
- Is designed or used to transport more than 15 passengers, including the driver, and is not used to transport passengers for compensation; or
- Is used in transporting material found by the Secretary of Transportation to be hazardous under 49 U.S.C. 5103 and transported in a quantity requiring placarding under regulations prescribed by the Secretary under 49 CFR, subtitle B, chapter I, subchapter C.

CLASS A

- Any combination of vehicles with a gross combination weight rating (GCWR) of 26,001 pounds or more provided the GVWR of the vehicle(s) being towed is in excess of 10,000 pounds.
- GCWR – the value specified by the manufacturer as the loaded weight of a combination (articulated) vehicle.
- GVWR – the value specified by the manufacturer as the loaded weight of a single vehicle.

CLASS B

- Any single vehicle with a GVWR of 26,001 pounds or more.
- Any vehicle with a GVWR of 26,001 pounds or more, pulling a vehicle with a GVWR of 10,000 pounds or less.
- A single vehicle designed to transport more than 16 passengers (including the driver) if the GVWR is 26,001 pounds or more.

CLASS C

- Any vehicle with a GVWR of less than 26,001 pounds transporting hazardous materials for which placarding is required.
- Any vehicle transporting more than 16 passengers, including the driver, with a GVWR of less than 26,001 pounds

CLASS D

- Automobiles, pick-up trucks and all other motor vehicles not specified in Class A, B or C.

CDL PERMIT

Per 49 CFR 383.71 of the Federal Motor Carrier Safety Regulations all CDL holders/applicants are required to have a valid Medical Examiner's Certificate or federal/state medical waiver, Self-Certification, and Commercial Driver License application on file with the Department of Vehicle Regulation, Division of Driver Licensing, prior to CDL permit/license issuance.

Once the information has been received, the Commercial Driver License Section will review the

medical certificate for authenticity and may contact your certified medical examiner for verification and/or additional information. Once your medical certificate, self-certification, and commercial driver application are verified, your driving record will be updated. You will then be eligible to apply for a CDL permit/ license at the Circuit Court Clerk's office in your county of residency.

All applicants will be required to successfully pass a knowledge test, either in written or oral form, and a vision test. A CDL instruction permit will then be issued which is valid for six (6) months. The permit must be held for 14 days prior to a skills test being administered.
A permit may only be renewed once in the two (2) year period. If you do not successfully pass the road skills test by the expiration of your CDL instruction permit renewal, you will need to reapply.

GENERAL INFORMATION

AGE AND FITNESS REQUIREMENTS

You must be at least eighteen (18) years of age and have two (2) years of experience as a licensed driver to qualify for a commercial driver's license or a commercial driver's instruction permit. Federal Motor Carrier Rules (49CFR, Part 391.41) require that drivers subject to those rules meet specific physical qualification standards. Anyone under the age of 21 will receive a "K" restriction on their license to notate it is for intrastate (in state) use only. School bus drivers within the state of Kentucky must be 21-years of age.

NEW RESIDENT AND TRANSFER OF CDL

After establishing residence in Kentucky, anyone who wishes to drive commercial motor vehicles must apply for a Kentucky commercial driver's license within thirty (30) days. If they have a valid out-of-state commercial driver's license, they must pass the vision test if he/she desires a Kentucky commercial driver's license. The Kentucky Department of Transportation, Division of Motor Vehicles, will obtain driving record information through the Commercial Driver's License Information System (CDLIS), the National Driver Register (NDR) and each state which he/she has been licensed. They will also be required to surrender their out-of-state license before a Kentucky commercial driver's license can be issued. New residents who do not

hold a valid commercial driver's license from another state must follow the same procedures as any first-time applicant for a commercial driver's license.

RESTRICTED LICENSES

The Kentucky Department of Transportation, Division of Motor Vehicles, is authorized to impose license restrictions to assure the safe operation of motor vehicles. The Department may issue a restricted license or may indicate restrictions on the regular license form. Operating a motor vehicle in violation of the restriction is a serious offense and could result in the suspension or revocation of your driving privilege.

RESTRICTIONS

- K Intrastate Driving Only
- L Vehicles not equipped w/Air Brakes
- M Except Class A Bus
- N Except Class A and B Bus
- Vehicles other than Tractor Trailer
- E Auto Transmission CMV only
- Z Hydraulic over Air brake (CDL License Only)
- V Medical Variance
- W Farm Restricted Service
- X No Cargo in Tank Vehicle (CDL Permit Only)
- P No Passengers in Bus (CDL Permit Only)
- 8 Other (special restrictions)

EXPIRATION OF LICENSE

Commercial driver's licenses expire four (4) years from the date of issuance or eight (8) years depending upon the type of license renewal issued. A commercial driver's license held by someone in the armed forces which expires while the person is on active duty remains valid for thirty (30) days from the date the person re-establishes residence in Kentucky.

Any person applying to renew a commercial driver's license which has been expired for two (2)

years or more must follow the procedures for initial issuance of a commercial driver's license, including testing provisions.

IMPLIED CONSENT

Anyone who accepts the privilege of driving in Kentucky is deemed to have given consent, if requested, to taking the designated test to determine body alcohol content. If the driver refuses to take a test of their blood, breath, or urine, their privilege of operating a motor vehicle will be suspended for a period of one (1) year to life.

A test or tests may be ordered at the direction of a law enforcement officer who, after stopping or detaining the commercial motor vehicle driver, has reasonable cause to believe that driver was driving a commercial motor vehicle while having alcohol or drugs in his system.

As a CDL holder, you are held to a higher standard. Whether you receive a violation in your car or in the CMV, your CDL is at risk. In Kentucky, the below list of violations that could result in the loss of commercial driving privileges for time periods ranging from 24 hours to life:

- 24 hours - Driving a commercial motor vehicle with any measurable amount of alcohol or controlled substance in the blood, breath, or urine.
- 60 days - Two serious moving violations in three years. A serious violation is defined as speeding 15 mph or more, improper/erratic lane change, following too closely, reckless driving, any violation arising in connection with a fatal accident, driving a commercial motor vehicle without having a commercial learner's permit or commercial license, driving a commercial motor vehicle without having a commercial learner's permit or commercial license in possession, driving a commercial motor vehicle without the proper class commercial learner's permit or commercial license or required endorsements, texting while driving a commercial motor vehicle, or using a hand held mobile telephone while driving a commercial motor vehicle.
- Any person who knowingly falsifies information or certification required to obtain a commercial driver's license, permit, or duplicate commercial driver's license, will be subject to an administrative hearing and disqualified for a period of at least 60 consecutive days.

- 120 days - Three serious moving violations in three years.
- 180 days - Convicted of operating a Commercial Motor Vehicle while placed out of service.
- 1 year - First conviction of any of the following:
    - Driving a commercial vehicle with a blood alcohol concentration of .04% or more or under the influence of a controlled substance.
    - Leaving the scene of a traffic accident
    - Using the commercial vehicle in the commission of a felony.
- 3 years - Violating any law above while transporting hazardous materials.
- For Life - First conviction of using the vehicle in the commission of a felony involving manufacturing, distributing, or dispensing a controlled substance.
- For Life - A second conviction of any of the following:
    - Driving a commercial motor vehicle under the influence of alcohol or other drugs.
    - Leaving the scene of a traffic accident while driving a commercial motor vehicle.
    - Using a commercial motor vehicle in the commission of a felony.
    - Refusing to submit to a blood, breath, or urine test when stopped for reasonable cause by a police officer.

EXAMINATIONS

GENERAL KNOWLEDGE

All applicants must take the General Knowledge, Air Brakes, Passenger and School Bus tests, either written or oral, and pass it with a least an 80% score. All applicants must pass an air brake test or the commercial driver's license will be restricted to vehicles without air brakes. Endorsement tests can be taken at the same time as the general knowledge test or at a later time.

SKILLS TEST

The Skills Test, if required, will not be given until you have passed all parts of the written examination. Each section of the Skills Test (i.e., Pre-Trip Inspection, Basic Controls and Road Test) must be passed in sequence in order to proceed to the next section. All Skills Tests will be administered by certified third-party examiners or the Kentucky State Police.

ENDORSEMENTS

- T Double/Triple Trailer
- P Passenger
- N Tank
- H Hazardous Materials
- S School Bus
- X Tank/Hazardous Materials combined

Adding of a Passenger endorsement will require a complete skills test in a passenger vehicle meeting the classification of the license being applied for.

Adding of a School Bus endorsement will require qualification for a passenger vehicle and a complete skills test in a school bus of the same vehicle group as the school bus driver will drive.

To remove an L or Z restriction, the applicant must perform a pre-trip inspection.
Class A can use a class A or B vehicle.
Class B can only use a class B vehicle.
Class C can only use a class C vehicle.

To remove an Automatic Transmission (E) restriction, the applicant must retake the on-road driving portion of the skills test in a Class A or Class B manual transmission vehicle.

DRIVER RESPONSIBILITIES

The driver privilege carries with it many responsibilities. The driver is responsible for their actions. There are a number of areas that the license holder must be aware of in order to maintain the privilege of driving in Kentucky. No person who operates a commercial motor vehicle is allowed to have more than one (1) driver's license at a time.

If you change your name or address, you are required to notify the Kentucky Department of Transportation, Division of Motor Vehicles, in writing, with copies of documents making this

change legal. An application for a change of name or address must be made to the Department of Transportation on a driver's license application form. Since this change is considered as a duplicate or reissuance license, a monetary fee is required.

Any Kentucky licensed commercial motor vehicle driver who receives an out-of-state violation (other than parking violations) must notify the Kentucky Department of Transportation, Division of Motor Vehicles, within thirty (30) days after the date of the violation.

Each driver who has their license suspended, revoked, cancelled or expired by any state, who loses the privilege of driving a commercial motor vehicle in any state for a period or is disqualified from driving a commercial motor vehicle for any period, must notify his/her employer before the end of the business day following the day the driver received notice of that fact.

Anyone who applies to be a commercial motor vehicle driver must provide the employer, at the time of application, with the following information for the ten (10) preceding years:

- a list of names and addresses of previous employers for whom the applicant drove a commercial motor vehicle;
- the dates of such employment; and
- the reason for termination.

Applicants must certify that all information furnished is true and complete. An employer may require an applicant to provide additional information.

A driver will be disqualified from driving based upon the current Kentucky State Law and Regulations as well as federal CDL requirements.

LOW CLEARANCE AREAS

It is vital for you, the driver, to know how tall your vehicle is. Throughout your career as a driver you will go under hundreds, if not thousands of overpasses. Most of the overpasses won't be an issue, but there will be times where the height of the bridge or overpass has restrictions. There should always be a low clearance sign posted if there are height restrictions. At times, you may

be on a multi-lane road and part of the overpass is low and the other lane is high enough for you to pass. Always be mindful of this.

When route planning, be mindful of the roads you are traveling. Watch for signs and be prepared to deviate if necessary.

ROAD AND BRIDGE RESTRICTIONS

Whether driving a bus or a truck, you must be aware of weight restrictions for roads and bridges. You must also be aware that if your vehicle exceeds the limit of the bridge or road, you are not to travel it, even if only ½ of your vehicle is on the bridge at a time. The bridge formula has taken this into consideration when the restrictions were put into place.

Per the Federal Highway Management Administration, “Federal law states that two or more consecutive axles may not exceed the weight computed by the Bridge Formula even though single axles, tandem axles, and gross vehicle weights are within legal limits. As a result, the axle group that includes the entire truck—sometimes called the "outer bridge" group—must comply with the Bridge Formula. Interior combinations of axles, such as the "tractor bridge" (axles 1, 2, and 3) and "trailer bridge" (axles 2, 3, 4, and 5) must also comply with weights computed by the Bridge Formula.”

Driving a school bus or truck over a road or bridge that has weight restrictions can damage the vehicle and further damage the road or bridge.

When route planning, be aware that if using a Global Positioning System (GPS) or other trip routing software, bridge weights and overpass height and restrictions may not be up to date.

DOT INSPECTIONS

As a CDL driver, you need to be aware of basic CDL requirements if you drive a vehicle which requires a US DOT Number. A Kentucky school bus does not, however, there may be times that you decide to drive for a common carrier or other over the road company.

WEIGH STATIONS

Kentucky requires every vehicle that requires a US DOT number and weighs more than 10,001 lbs. to stop at a weigh station. There are signs along the roadside which indicate the location of a weigh station, follow these signs as you approach the weigh stations. Once at the weigh station, follow the signal lights to determine what to do. Always pull over for an inspection if told to do so.

ROADSIDE INSPECTIONS

There are seven types of roadside inspections. These inspections are to ensure the safety conditions of the commercial motor vehicles.

Level 1- Full Inspection- This examines the vehicle and the driver credentials. This is the most intensive inspection as the vehicle is checked on the outside as well as underneath.
Level 2- Walk-Around – This is less invasive as it does not include checking under the CMV.
Level 3 – Driver Only – This inspection looks at the drivers credentials to ensure that everything is in order. The inspection is to check your commercial driver's license, medical examiner's certificate, Skills Performance Evaluation certificate (if applicable), record of duty status, hours of service, seatbelt usage, and vehicle inspection reports.
Level 4 – Special Study – These are rare and occur when there has been a trend that has been observed in the industry.
Level 5 – Vehicle Only- This checks the vehicle only. It is a level one minus the driver check.
Level 6 – Radioactive Materials – This is only if you haul radioactive materials.
Level 7 – Small Passenger Vehicles – These inspections are jurisdictionally mandated and don't fall under any of the other roadside inspection areas. CMV's such as school buses, limousines, taxis, shared-ride transportation, hotel courtesy shuttles and other intrastate/intra-provincial operations are all subject to this type of inspection.

PENALTIES AND FINES

This section applies to any person driving a commercial motor vehicle that is non-government owned. As a school bus driver, for a public school district, these do not apply during the time

you are driving for the public school.

HOURS OF SERVICE

MAXIMUM DRIVING TIME

49 CFR §395.5 dictates the maximum driving time for passenger-carrying vehicles.

Subject to the exceptions and exemptions in §395.1:

(a) No motor carrier shall permit or require any driver used by it to drive a passenger-carrying commercial motor vehicle, nor shall any such driver drive a passenger-carrying commercial motor vehicle:

(1) More than 10 hours following 8 consecutive hours off duty; or

(2) For any period after having been on duty 15 hours following 8 consecutive hours off duty.

(b) No motor carrier shall permit or require a driver of a passenger-carrying commercial motor vehicle to drive, nor shall any driver drive a passenger-carrying commercial motor vehicle, regardless of the number of motor carriers using the driver's services, for any period after—

(1) Having been on duty 60 hours in any 7 consecutive days if the employing motor carrier does not operate commercial motor vehicles every day of the week; or

(2) Having been on duty 70 hours in any period of 8 consecutive days if the employing motor carrier operates commercial motor vehicles every day of the week.

10-HOUR DRIVING LIMIT

This regulation is found in 49 CFR 395.5(a) (2). You are allowed 10 hours of driving time after 8 consecutive hours off duty. There is no limit on how many of those hours you are allowed to drive at one time — you may drive for as little as a few minutes or as much as 10 hours in a row. Once you have driven a total of 10 hours, you have reached the driving limit and must be off duty for another 8 consecutive hours before driving a commercial motor vehicle again. The 8 consecutive hours may consist of off duty, sleeper berth, or any combination of the two. There must be no on-duty or driving time during those 8 hours.

Example: You have had 8 consecutive hours off. You come to work at 7:00 a.m. and

drive from 8:00 a.m. until 6:00 p.m., you must not drive again until you have at least 8 consecutive hours off. You may do other work after 6:00 p.m., but you cannot do any more driving of a commercial motor vehicle.

ON-DUTY TIME

The 15-hour and 60/70-hour limits are based on how many hours you work over a period of time. Just what kind of work is included in on-duty time? It includes all time you are working or are required to be ready to work, for any employer. Specifically, it includes the following activities:

- All time at a bus station, yard, terminal, or other facility of a motor carrier or customer, unless you have been relieved from duty by the motor carrier;
- All time inspecting or servicing your vehicle, including fueling it and washing it;
- All driving time;
- All other time in a commercial motor vehicle unless you are resting in a sleeper berth;
- All time loading, unloading, supervising, or attending your motor coach/bus, or handling paperwork for trips;
- All time taking care of your vehicle when it is broken down;
- All time spent providing a breath, saliva, or urine sample for drug/alcohol testing, including travel to
- and from the collection site;
- All time spent doing any other work for a motor carrier, including giving or receiving training and driving a company car; and
- All time spent doing paid work for anyone who is not a motor carrier, such as a part-time job at a local restaurant.

The bottom line is that on-duty time includes all time you are working for a motor carrier, whether paid or not, and all time you are doing paid work for anyone else. The definition of on-duty time is found in 49 CFR 395.2.

<u>HANDLING AND DOCUMENTING CARGO</u>

This section does not apply to public school bus drivers, but does apply for any other CMV.

If your cargo is loaded wrong or not secured properly, it can be a danger to yourself or others. Improperly secured cargo can fall off and cause traffic problems where someone could be hurt or killed. If you have to stop your vehicle quickly or you are involved in a crash, you, the driver could be injured or killed as well. Control of the vehicle is crucial and can be made difficult by improperly loaded cargo.

Federal, state and local regulations vary for CMV weights and securements. There are also weight limits on many roadways. Know the rules where you will be driving.

CARGO WEIGHT DISTRIBUTION

You are responsible, whether you load and secure the cargo or if someone else does it for you. Follow these tips:

- Always inspect your cargo.
- You must keep weights within legal limits.
- Too much weight on the steering axle can cause hard steering.
- Too little weight on the driving axle can cause poor traction.
- Weight that is loaded with a high center of gravity allows a greater risk of rollover.

Overloading has a bad effect on steering, braking and speed control. Overloaded vehicles snarl traffic flow by slowing down on hills, and even worse they may gain too much speed on downgrades. Stopping distance increases and brakes may fail when forced to work too hard.

CARGO SECUREMENT

Know that your cargo is secured properly and does not obstruct your view from any direction. Block (front, back and sides), or brace (secures the load vertically) as needed. Tie–downs should be used on flatbeds without sides to keep cargo from shifting or falling off. Tie-downs must be of the proper type and strength. These can include ropes, straps, chains, and tensioning devices. Cargo should have at least one tie-down for each ten feet of cargo length. No matter how small the cargo you must have at least 2 tie-downs.

As part of your pre-trip inspection, be certain that you are not overloaded. Inspect the load and all securing devices within the first 50 miles, make adjustments as needed. Recheck every 3 hours or 150 miles. Recheck after every break you take.

CARGO COVERING

There are two basic reasons to cover cargo:

- To protect people from spilled cargo.
- To protect the cargo from the weather.

Look at your cargo covers in the mirrors from time to time as you drive. You must be able to use all mirrors for full view on all sides of your vehicle. A flapping cover can cause an accident by obstructing your view.

SAFE AND EFFICIENT LOADING AND UNLOADING

Cargo may be loaded or unloaded by hand or with equipment. Do not handle cargo roughly, it belongs to someone else. Before you begin the process of moving the cargo, know that you are trained on the equipment you will use to load/unload it.

Equipment to make the job easier might include:

- Two-wheel hand truck
- Pipe rollers
- Crowbar
- Forklifts

Know how to use the equipment or ask for help.

SECURITY AND CARGO THEFT PROCEDURES

Cargo theft is a serious problem. A large portion is carried out by organized theft groups. Also, cargo scams are carried out by thieves posing as shipment carriers, collecting goods under a disguise. Consider the below steps to limit your risk to cargo theft.

- Ensure hiring procedures are tight and pre-screen individuals who might increase your risk
- Educate your staff

- Use technology
- Use traditional security, padlocks and fences
- Document policy and procedure
- Check your insurance regularly
- Perform regular safety audits
- Support law enforcement

HANDLING AND DOCUMENTING HAZARDOUS MATERIALS

This section does not apply to public school bus drivers but does apply for any other CMV.

Hazardous materials are products that pose a risk to health, safety, and property during transport. The term is shortened to HAZMAT or HM in government regulations. HM include explosives, various types of gas, solids flammable and combustible liquid, and other materials. Because of the risks involved and the potential consequences these risks impose, all levels of government regulate the handling of HM.

The Hazardous Materials Regulations (HMR) is found in parts 100-185 of title 49 of the Code of Federal Regulations. The common reference is 40 CFR 100-185. The list contained in the HMR is not all-inclusive. The shipper must make the decision as to whether the material meets the definition of HM in the regulation. The regulation requires vehicles transporting HM to display diamond-shaped, square on point, warning signs called placards.

Due to the constantly changing nature of government regulations, it is impossible to guarantee the absolute accuracy of materials in this section. It is the driver's responsibility to obtain an up-to-date copy of the complete regulations.

You must have a CDL with an HM endorsement before you drive any size vehicle that is used to transport hazardous materials as defined in 49CFR 383.5. You must pass a written test about the regulations and requirements to get this endorsement. Section 9 of the COMMERCIAL DRIVER LICENSE MANUAL 2005 TESTING SYSTEM (JULY 2014) has all the information you need to pass this written test.

Important tips for a HAZMAT driver are:

- Be certain the shipper has identified and properly marked/labeled hazardous materials.
- Refuse leaking shipments.
- Placards must be visible at all times.
- Safely transport shipment without delay.
- Follow all laws and/or special rules about transport of this shipment.
- Keep hazardous materials shipping papers and emergency response information in the proper place.

PRIVATE MOTOR CARRIER OF PASSENGERS (NON-BUSINESS)

This section does not apply to public school bus drivers, but does apply for any other CMV.

You are not required to fill out a log if you are a private motor carrier of passengers. If you are operating as a non-business, private motor carrier of passengers. A non-business, private motor carrier of passengers is a private motor carrier (not for hire) involved in the interstate transportation of passengers, but that transportation:

- Is not done as part of a business; and
- Is not available to the public at large.

Examples might include churches, private schools, scout groups, civic organizations, and other charitable organizations that may purchase or lease buses for the private transportation of their groups.

Keep in mind that the standard hours-of-service limits discussed above still apply, but a log is not required. This regulation is found in 49 CFR 395.8(a).

POST ACCIDENT PROCEDURES

This section does not apply to public school bus drivers, but does apply for any other CMV.

After an accident, a driver has the responsibility to secure the scene of the accident. They will

need to keep people away from the scene and limit the spread of material, only if they can safely do so. Drivers must be sure to communicate the danger of any hazardous materials to emergency response personnel and provide emergency responders with the shipping papers and emergency response information.

Follow this checklist:

- Check to see that your driving partner is OK.
- Keep shipping papers with you.
- Keep people far away and upwind.
- Warn others of the danger.
- Call for help.
- Follow your employer's instructions.

POST-ACCIDENT ALCOHOL TEST

This section does apply to public school bus drivers.

After an accident, a driver who has an accident may be required to take a post-accident alcohol test in compliance with FMCSA 382.303 or per board policy. Situations which require a post-accident alcohol test include:

- Anytime an accident occurs and there is a loss of life or a citation within 8 hours of the occurrence under state or local law for a moving traffic violation arising from the accident;
- if the accident involved bodily injury and that person receives medical treatment away from the scene of the accident; or
- there is disabling damage to the vehicle and one or more vehicles involved requires towing.

AMERICANS WITH DISABILITIES ACT (ADA)

This section does not apply to public school bus drivers, but does apply for any other CMV.

The DOT's ADA regulations require companies to provide accessible, timely Over-the-Road-

Bus (OTRB) services for passengers with disabilities, including wheelchair users. The size of the company and the services provided by the company may determine the level of service and amount of time the company has to comply with a request. Any questions regarding the requirements can be found by accessing the DOT regulation 49 CFR Part 37 (H). OTRB operators cannot discriminate against individuals with disabilities.

Per the FMCSA, it is discrimination if an OTRB operator:

- Denies transportation based on a disability. Operators can deny service to any passenger for violent, seriously disruptive, or illegal behavior. However, they cannot deny service if a disability causes an appearance or involuntary behavior that may offend, annoy, or inconvenience employees or others.
- Requests persons other than employees (i.e., family members or travel companions) to assist passengers with disabilities, unless a passenger requests or consents to help from such persons.
- Requires or asks a passenger with a disability to reschedule a trip, or travel at a time other than the passenger's requested time.
- Fails to provide reservation services to passengers with disabilities that are equivalent to those provided other passengers.

If you observe a safety issue, these should be reported as soon as possible. A safety complaint is related to the mechanical condition of the bus (bald tires, brakes that might be faulty, lights not properly operating, etc.) or to the actions or physical condition of the driver during the trip. For example, a driver who is observed texting while driving, nodding off, speeding, or driving in excess of legal driving hours (Hours of Service).

WHISTLE BLOWER/COERCION

Drivers, technicians and all other employees that affect the safety of a commercial motor vehicle have the right to question the safety practices without the risk of losing their job or being subject to retaliation for stating a safety concern. The occupational safety and health administration's whistleblower statutes protect drivers from retaliation. These can be found in 29 CFR part 1978. Any complaints can be reported directly to OSHA. If you file a complaint, OSHA will contact

you to determine whether to conduct an investigation. You **must** respond to OSHA's follow-up contact or your complaint will be dismissed. To report an emergency, fatality, or imminent life-threatening situation, please call toll free number immediately to 1-800-321-OSHA (6742).

Per the FMCSA, coercion occurs when a motor carrier, shipper, receiver, or transportation intermediary threatens to withhold work from, take employment action against, or punish a driver for refusing to operate in violation of certain provisions of the Federal Motor Carrier Safety Regulations (FMCSRs), Hazardous Materials Regulations (HMRs) and the Federal Motor Carrier Commercial Regulations (FMCCRs). Coercion may be found to have taken place even if a violation has not occurred. An example of coercion is when a motor carrier terminates a driver for refusing to accept a load that would require the driver to violate the hours of service requirements. The following must have occurred in order for coercion to have existed:

A motor carrier, shipper, receiver, or transportation intermediary request a driver to perform a task that would result in the driver violating certain provisions of the FMCSRs, HMRs, or the FMCCRs;

The driver informs the motor carrier, shipper, receiver, or transportation intermediary of the violation that would occur if the task is performed, such as driving over the hours of service limits or creating unsafe driving conditions; and

The motor carrier shipper, receiver, or transportation intermediary make a threat or take action against the driver’s employment or work opportunities to get the driver to take the load despite the regulatory violation that would occur.

To address the problem of coercion, the Federal Motor Carrier Safety Administration (FMCSA) adopted the Prohibiting Coercion of Commercial Motor Vehicle Drivers (Coercion Rule). The Coercion Rule explicitly prohibits motor carriers, shippers, receivers, and transportation intermediaries from coercing drivers to operate in violation of certain FMCSA regulations, including the drivers' hours-of-service limits, the commercial driver's license (CDL) regulations, the associated drug and alcohol testing rules, HMRs, and some of the FMCCRs. The Coercion

Rule allows drivers to report incidents of coercion to FMCSA and authorizes FMCSA to issue penalties against motor carriers, shippers, receivers, or transportation intermediaries that have coerced drivers.

SKILLS REVIEW

This section does apply to public school bus drivers.

This section will discuss the skills needed to safely operate a commercial motor vehicle. Many have been discussed in previous chapters, but are a reminder as the driver prepares for their CDL test. A school bus driver must have a comprehensive knowledge of the procedures used in operating a commercial vehicle safely.

BASIC CONTROL

Safe operation of a commercial vehicle calls for skills in:

ACCELERATING

- Partly engage clutch before taking your foot off of the brake.
- Use the parking brake to keep from rolling back and release only when you have enough power to keep you from rolling back.

STEERING

- Hold the steering wheel firmly with both hands, either in the 9-3 or 10-2 positions.
- Hands should be on opposite sides of the wheel.
- BACK UP SAFELY
- Back up slowly.
- Use the mirrors.
- Correct the drift of a bus by turning the top of the steering wheel in the direction that the rear of the bus is drifting.
- Pull forward to reposition the vehicle as needed.
- Use a helper and hand signals.
- Back and turn to the driver's side when possible.
- Avoid backing when you can.

SHIFTING GEARS

- Correct shifting of gears is necessary for control of your vehicle.
- Many manual transmissions (stick-shifts) for heavy vehicles must be double-clutched.
- Downshift before going down a hill.
- Downshift before entering a curve.

SCANNING

- Seeing what is around you is important.
- Look ahead the distance the vehicle would travel in twelve to fifteen (12-15) seconds (at highway speeds that is about ¼ mile) for:
    - traffic
    - road conditions
    - signs
- Look to the sides and rear, using mirrors for:
    - checking traffic
    - checking your vehicles and tires
    - lane changes, turns, merges and tight moves
- Check mirrors quickly and return attention to road ahead.
- Curved mirrors, as well as convex mirrors, make things seem farther away than they are.
- There are blind spots that your mirrors cannot show you.

COMMUNICATING

- Signaling what you will do is very important for safety.
- Signal early before you turn or change lanes.
- Cancel your signal after the turn or lane change.
- Flash the brake lights to warn other drivers that you will need to slow down for a hazard or stop.
- Use the four-way emergency flashers when moving slowly or when you are parked, when appropriate.

- Don’t signal others to pass as it could cause an incident.
- Brake early and slow gradually for tight turns. In communicating your presence to others:
- Don’t assume that others can see you.
- At night, flash lights to high beam, then back to low beam when you are about to pass a vehicle.
- Use low beam headlights so you can be seen easier.
- When passing, tap the horn lightly or flash the high beams.
- Use the horn only when needed; otherwise, it can startle other drivers.
- When parked on the side of the road:
    - turn on four-way emergency flashers;
    - place reflective triangles within ten (10) minutes after stopping; and;
    - when putting out the triangles, hold them between yourself and the oncoming traffic for your safety.

NOTE: On a hill or curve, the rear triangle should be moved up to five hundred feet (500’) to provide adequate warning.

CONTROLLING SPEED (STOPPING)

You may have to change your speed because of traffic, hills, weather conditions, and curves. Stopping distance includes:

- the distance the vehicle goes from the time your eyes see a problem to the time your brain knows it – perception distance;
- the distance traveled from the time your brain tells your foot to move from the accelerator until your foot pushes the brake – reaction distance; and
- the distance it takes to stop once the brakes are applied – braking distance.

At 55 mph, it will take about six (5) seconds to stop. Your vehicle will travel about the distance of a football field. Perception Distance + Reaction Distance + Braking Distance= Total Stopping Distance

If you double your speed, it will take you about four (4) times the distance to stop your vehicle. Brakes on heavy vehicles are made to work better if your vehicle is loaded. Empty trucks require

greater stopping distance because an empty vehicle has less traction. This may cause bouncing and wheel lockup. The heavier a vehicle is, the more work the brakes must do to stop. This makes the brakes hotter.

Match your speed to the road surface:

- Slippery roads make the vehicle harder to turn and cause you to take longer to stop. Slow down gradually and allow much more space than is needed for ideal driving conditions.
- On wet roads, allow for double stopping distance. Reduce speed by one third (55 mph to 35 mph).
- On packed snow, reduce speed by one-half or more.
- On ice, stop driving as soon as you can safely do so.
- Hydroplaning may happen to a vehicle when it travels on wet roads. Tires lose road contact and have little or no traction.
- Speed and curves:
- Adjust speed for curves.
- Downshift before you enter a curve.
- Braking in a curve may cause skidding.
- Vehicles with a high center of gravity can roll over at the speed limit posted for a curve.
- Be able to stop within the distance you can see ahead.
- Generally, the safest speed in heavy traffic is the speed of other vehicles.
- Speed on downgrades – shift to a lower gear before starting down a grade or hill.

VEHICLE SPATIAL AWARENESS

- Space Behind
    - Stay to the right so faster vehicles may pass.
    - Deal with tailgaters safely by:
        - avoiding quick lane changes;
        - increasing your following distance;
        - not speeding up; and/or
        - turning on tail lights or tapping brakes lights.

- Space to the Sides
    - Stay in the center of the lane.
    - Avoid traveling next to other vehicles, especially when coming out of tunnels. Strong winds may make it difficult to stay in your lane.
- Space Overhead – Check to be sure you always have overhead clearance.
    - Don't assume that the heights posted are correct.
    - If your vehicle tilts, it could hit an object near the side of the road; drive closer to the center of the road.
- Space Below
    - NOTE: Most drivers forget about the clearance under the vehicles.
- Space for Turns
    - NOTE: Because of wide turning and off-tracking, large vehicles can hit other vehicles or objects during turns.
- Rights Turns
    - Turn slowly to give yourself and others more time to avoid problems.
    - Turn wide as you complete the turn.
    - Don't turn wide to the left at the beginning of the turn unless necessary.
- Left Turns
    - Reach the center of the intersection before you start the turn.
    - Use the right-hand turn lane if there are two (2) turning lanes.
- Crossing or Entering Traffic
    - Be sure of the size and weight of your bus.
    - You need a larger gap than a car to enter traffic.
    - Allow more room if your bus is heavily loaded.
    - Be sure you can get all the way across before traffic reaches you.

DRIVING IN WINTER WEATHER

- Winter pre-trip inspections should include:
    - antifreeze in your vehicle;
    - windshield wiper fluid in your vehicle;

- defrosters and heaters are working properly;
- windshield wipers are working properly; tire chains;
- radiator shutters are working properly; and
- that there are no exhaust system leaks, which could allow poisonous carbon monoxide to leak into your vehicle.

DRIVING

- Start the engine and accelerate slowly to get the feel of the road.
- Make turns as gently as possible.
- Adjust speed to conditions.
- Adjust space to conditions.
- Avoid getting brakes wet, use a lower gear, and increase RPMs.
- Gently put on brakes when going through any water. Maintain light pressure on brakes for a short distance to heat them up in order to dry them out.

DRIVING IN HOT WEATHER

- During pre-trip inspections:
- Inspect tires every two (2) hours or one hundred (100) miles. Tire tread may separate in hot weather.
- Check proper oil level and pressure – oil helps keep the engine cool.
- Check the proper engine coolant level.
- Make sure the engine coolant has antifreeze. Antifreeze helps the engine in hot weather as well as cold. Never take off the radiator cap or any part of the pressurized system until the engine has completely cooled.
- Make sure belts are tight to avoid overheating.
- Make sure coolant hoses are not cracked or dry-rotted.

DRIVING

- Watch for bleeding tar on the road.
- High speeds will increase tire problems and make tires and engine hotter.
- Never check the air pressure in hot tires. If the tire is too hot to touch, remain stopped

until the tire cools.

MOUNTAIN DRIVING

- Be in the correct gear before going down steep grades.
- Older vehicles – Choose the same gear you would use to go up the grade.
- Newer vehicles – Choose a gear lower than you would use to go up the grade.
- Brake properly.
- Go slow enough down a grade that light use of the brakes will keep your speed from increasing.
- Brakes that get hot may fade.
- Use on again-off again braking with a target speed.
- Know escape ramp locations on the route. Escape ramps are made to safely stop runaway vehicles as well as to avoid damage and prevent injury to drivers, passengers, and vehicles.

SEEING HAZARDS

- A hazard is any road condition or road user that is a possible danger.
- Seeing hazards lets you be prepared.
- Learn to recognize hazards.
- Slow down and drive with care if any of the following road hazards are in evidence:
- Work zones – drive slowly and use four-way flashers or brake lights to warn others.
- Drop-offs – Don't drive too near the edge of the road.
- Foreign objects – Try to avoid them without making sudden or unsafe moves.
- Off/On ramps:
    - Posted off-ramp speeds may not be safe for larger vehicles or heavily loaded vehicles.
    - Braking and turning at the same time is dangerous.
    - Slow down before the curved part of an off-ramp or on-ramp.
- Be aware of hazards such as:
    - drivers with blocked vision;

        - distracted drivers;
        - talkers;
        - children;
        - workers;
        - disabled vehicles;
        - incidents;
        - shoppers;
        - confused drivers;
        - slow drivers;
        - drivers in a hurry;
        - impaired drivers;
        - slow vehicles (identified with a red triangle with an orange center); and
        - if there is movement inside a parked car, which could mean someone is about to get out.
- Always have a plan:
- Driver body movement may be a clue for a turn or lane change.
- Watch for other drivers who can't decide which way to go.
- Look for hazards to have time to plan before an emergency.
- Be ready to act based on emergency plans.

EMERGENCIES

An example of a traffic emergency is when two (2) or more vehicles might crash. Vehicle emergencies can happen when tires, brakes or vehicle parts fail.

Remember: A vehicle may be able to turn more quickly than to stop.

STEER TO AVOID A CRASH:

- Stopping is not always the best thing to do.
- A quick turn can be made safely if the driver:
    - doesn't apply brakes when turning

        - avoids braking until the vehicle speed is less than 20 mph
        - keeps both hands on the steering wheel
- "Counter-steer" (turn wheel back in other direction) once you have passed the danger.
- Steer to the right if an upcoming car has drifted into your lane. Don't turn any more than necessary to clear what is in your way.
- Leave the road if necessary.
- Brake gently to avoid skidding.
- Keep one (1) set of wheels on the pavement when possible.
- Stay on the shoulder if possible.
- If the driver must return to the road before stopping:
    - reduce speed or even stop if safe to do so
    - turn enough to get back on the road
    - counter-steer immediately when front tires are on the road

STOPPING QUICKLY AND SAFELY

- Controlled Braking:
    - Apply brakes as hard as possible without locking the wheels.
    - If wheels lock, release brakes.
    - Use brakes again, as soon as possible.
- Stab Braking:
    - Apply brakes all the way.
    - Release brakes when wheels lock up.
    - As soon as the wheels start rolling again, fully apply brakes.
    - Don't jam on the brakes. If the wheels are skidding, you cannot control the vehicle.
    - Never disable or unhook steering axle brakes.

TIRE FAILURE

- Recognize a tire failure by:
    - sound

    - vibration
    - feel
- Hold the steering wheel firmly.
- Stay off the brake until the vehicle slows down.
- After stopping, check all the tires.

SKID CONTROL AND RECOVERY

- Five (5) main causes of skids are:
    - over-braking
    - over-steering
    - over-accelerating
    - driving too fast for road conditions
    - not enough weight on the front axle

DRIVE WHEEL SKIDS

Drive wheel skids caused by acceleration can be stopped easily by taking your foot off the accelerator.

- Drive wheel braking skids can be corrected by:
    - stopping braking
    - turning quickly in the direction of the skid
    - counter-steering

FRONT-WHEEL SKIDS

Front wheel skids are caused by driving too fast for the conditions. The front end tends to go in a straight line no matter how much you turn the steering wheel. Slow down as quickly as possible without skidding.

STAY ALERT AND FIT

- Stay alert by:
    - getting enough sleep

- scheduling trips during hours you are normally awake and can remain alert
- not taking medicine that has a label warning against operating vehicles
- keeping cool
- taking short breaks before you feel drowsy

- When sleepy:
  - stop driving
  - sleep or take a nap
  - avoid taking drugs to keep you awake

    Note: Only sleep can overcome being tired.

AIR BRAKE SYSTEMS

An air brake system is made up of three (3) parts.

- The service brake system applies and releases the brakes when you use the brake pedal when driving.
- The parking brake system applies and releases the parking brake when you use the parking brake control.
- The emergency brake system uses parts of the service and parking systems to stop the vehicle if the service brake system fails.
- Air brakes use compressed air to make the brakes work.
- Air brakes are a safe way of stopping large vehicles if the brakes are well kept and used correctly.

PARTS OF THE AIR BRAKE SYSTEM

- The air compressor pumps air into the air storage tanks. If the compressor has its own oil supply, check the oil level before driving.
- The air compressor governor turns the air compressor on and off and controls the air being pumped into the tanks.
- The air storage tanks hold compressed air- enough air to let the brakes be used several times even if the air compressor stops working.

AIR TANK DRAINS

- Compressed air has some water and oil in it.
- Water and compressor oil tend to collect in the bottom of the air tank.
- Water can freeze in parts of the brake system, making the brakes fail.
- Drain valves let you drain the unwanted oil and water that collects in the bottom of the tank.
- Tanks with manual valves must be drained by hand after each day of driving.
- Tanks with automatic valves drain the water and oil by themselves.

ALCOHOL EVAPORATOR (FOUND ON SOME VEHICLES)

- The alcohol evaporator puts alcohol into the air system.
- Alcohol helps keep ice from forming in air brake valves and parts.
- Ice can make the brakes stop working. Check the alcohol container every day during cold weather and fill it when needed.
- Drain air tanks daily if the tank has a manual valve (see your local district procedure on this).

SAFETY VALVE

- The safety valve protects the tank and the rest of the system from too much pressure.
- The brake pedal controls pressure to the brakes.
- Pushing the pedal down harder applies more air pressure.

FOUNDATION BRAKES

The foundation brakes are the brakes at each wheel.

The most common type is the S-cam drum brake.

Other types are wedge and disc brakes.

SUPPLY PRESSURE GAUGE

The supply pressure gauge tells how much pressure is in the air tanks. All vehicles have a supply pressure gauge.

LOW AIR PRESSURE WARNING SIGNAL

The low air pressure warning signal:

- is required on vehicles with air brakes;
- must come on before the air pressure falls below 60 PSI;
- is usually a red light; and
- means, when it comes on, that you should stop right away and park your vehicle safely.

STOP LIGHT SWITCH

The stop light switch turns on the brake lights when you put on the air brakes to warn drivers behind you.

SPRING BRAKES

- hold emergency and parking brakes on;
- are held back by air pressure when driving;
- put the brakes on with their very powerful springs if the air pressure is removed; and
- depend, for their braking power, on brakes being in adjustment.

PARKING BRAKE CONTROLS

The park brake valve is used to apply the spring brakes slowly if service brakes fail.

- Dual parking control valves consist of:
    - one (1) valve used to put on the spring brakes for parking; and
    - another valve using pressure from a separate tank to release the spring brakes so you can move the vehicle in an emergency.

INSPECTING AIR BRAKE SYSTEMS

- Check the air compressor drive belt.
- Check the manual slack adjusters on S-cam brakes with the vehicle parked on level ground, wheels chocked (held in place by blocks), and parking brake off.
- Check the brake drums (or discs), linings, and hoses.
- Test the low-pressure warning signal.
- Check that spring brakes are activated automatically.

- Test air leakage rate:
    - Loss rate should be less than 2 PSI in one 1 minute for single vehicles with the engine off, brakes released.
    - Loss rate should be less than 3 PSI in one 1 minute for single vehicles with the service brake on.
- Check air compressor governor cut-in and out the pressure.
- Test parking brake.
- Test service brakes:
- Move the vehicle forward slowly and apply the brakes firmly.
- Note any vehicle “pulling” to one side, unusual feel, or delayed stopping action.

USING AIR BRAKES

- For a normal stop, use the brake pedal to control the pressure, so the vehicle comes to a smooth, safe stop.
- For emergency stops, brake so you can steer safely, and the vehicle stays in a straight line.
- Controlled braking requires you to:
    - firmly apply brakes
    - release brakes if wheels slide
    - reapply brakes
- Stab braking requires that you:
    - press the brake pedal as hard as you can
    - release the brakes when the wheels lock up
    - put the brakes on again when the wheels start rolling

STOPPING DISTANCE

Air brakes, unlike hydraulic brakes, take time to work after the brake pedal is pushed.
It takes one-half of a second or more for the air to flow through the lines to the brakes.
On dry pavement, the air brake lag distance at 55 mph is about thirty-two feet (32').

Stopping distance is the total of four factors:
Perception Distance + Reaction + Effective Braking Distance + Brake Lag Distance = Stopping Distance

BRAKING ON DOWNGRADES

When you try to slow down from a high speed, often or quickly, the brakes get too hot. Brakes will fade when they get too hot, and you will have to push harder to get the same stopping force. Use a low gear. On again-off again techniques with a target speed is the approved downhill braking procedure. Brake system adjustments must be balanced to give the same braking to each wheel.

PARKING BRAKE

Use the parking brake any time you park the vehicle (or load/unload students). Let hot brakes cool before applying parking brakes (chock wheels). Before using parking brakes in freezing weather, be sure to dry brakes that are wet (drive with brakes lightly applied). Parking brakes must be held by mechanical force. Drain air tanks of water and oil after each working day (see your local district procedures before doing this).

SPEED MANAGEMENT AND BRAKING

Whenever you double your speed, it takes approximately four (4) times as much stopping distance.

- Slow down before curves. Although the posted speed is safe for cars, it may be too high for buses.
- Stop fifty feet (50') before a drawbridge that does not have a signal light or traffic attendant.
- Adjust your speed by slowing down when going from high beams to low beams.
- Slow down and look:
    - at street car crossings
    - where a policeman or flagman is directing traffic
    - at crossings marked "exempt crossings".

FOLLOWING DISTANCE

- Use one (1) second for every ten feet (10') of vehicle length up to 40 mph
- Add one (1) second over 40 mph
- When driving on a slippery road, allow much more space for following distances

Other measures to prevent having an incident are:

- Use caution at intersections
- Know the space your bus needs to merge with traffic
- Never assume other drivers will brake to give you room
- Avoid traveling next to other vehicles
- Lane changes – you need to check your mirrors to make sure no one is alongside you or about to pass you.

- Check mirrors:
    - before you start to change lanes
    - after you have signaled your intentions
    - immediately after starting the change
    - after the change is completed
- Be cautious at railroad crossings.
    - Stop between fifteen and fifty-feet (15-50') from railroad crossings, set parking brake
    - Listen and look both ways for trains
    - If one train has passed, look both ways again to make sure another train isn't comings
    - Never change gears while crossing railroad tracks
- All drivers look ahead, but many drivers don't look far enough
- Recognize hazards such as an ice cream truck, blind intersections, or a driver signaling a turn

RIDERS

May not stand forward of the rear of the driver's seat must remain behind the standee line. There should be not standees on a Kentucky school bus while the bus is moving. Remind riders to take carry-ons with them as they are getting off the bus.

While on the road, the driver must supervise passengers. While driving, scan the inside of the bus as well as the road ahead. Remind riders about rules, if needed. Follow the local school district rules for handling drunk or rude drivers on the road. Remind riders to watch their step when leaving the bus. Never drive with an open emergency exit door or window.

Any item transported on a school bus must be stored in the undercarriage of the bus. The driver is the only person who shall store or retrieve items from the undercarriage. If an item is being carried inside the bus, it must fit in the lap of the student and shall not infringe upon the space of other riders. Tall items are to be placed on the floor of the bus and held by the student and shall not infringe upon other riders' space. Each school district shall have a policy of what can and

cannot be transported on the bus.

AFTER-TRIP INSPECTION

Inspect your bus after every shift. Report any damage or mechanical problems.

PROHIBITED PRACTICES

Don’t do anything that distracts you from driving.

Don’t tow or push a bus with riders on it unless getting passengers off would be dangerous.

Don’t refuel a bus when riders are on board.

Don’t use brake interlocks when safety requires the use of a parking brake.