

WEST VIRGINIA SCHOOL BUS OPERATOR INSTRUCTIONAL PROGRAM

“WE DRIVE FOR EXCELLENCE”

Classroom Edition
Revised 2008

WEST VIRGINIA DEPARTMENT OF EDUCATION

Office of School Transportation
Division of Student Support Services

WEST VIRGINIA SCHOOL BUS OPERATOR INSTRUCTIONAL PROGRAM

Revision Committee
2008

Ben Shew
Phil Hinkle
Mike Watts
Bob Summerfield
Daniel McKinney
Wesley Stone
Jimmy Lacy
Brenda Taylor

TABLE OF CONTENTS

SECTION A – INTRODUCTION TO SCHOOL BUS OPERATOR ROLE AND
Pg. 5 RESPONSIBILITY

SECTION B - INTRODUCTION OF SCHOOL BUS OPERATION
Pg. 15

SECTION C - DRIVER FUNDAMENTALS - CONTROLLING THE POSITION OF THE
Pg. 31 BUS

SECTION D - DRIVER FUNDAMENTALS - DETECTING HAZARDS
Pg. 76

SECTION E - DRIVER FUNDAMENTALS - EMERGENCY DRIVING TECHNIQUES
Pg. 87

SECTION F - ACCIDENTS AND EMERGENCIES
Pg. 94

SECTION G - PASSENGER CONTROL
Pg. 110

SECTION H - FIELD TRIPS
Pg. 136

SECTION I - TRANSPORTING EXCEPTIONAL STUDENTS

Pg. 184

FOREWORD

The transportation of students to and from school is a critical element of the educational process in West Virginia. More than eighty-five percent of West Virginia's students ride a school bus each school day.

Being the person having the direct responsibility for transporting students requires excellent driving skills, good health and physical condition, an understanding of child psychology and a dedication to the task that is, at times, above and beyond what is asked of the average school employee.

The primary objective of any school transportation system is to transport all students to and from school safely and efficiently. To achieve this goal, school bus operator trainees must be thoroughly instructed in the fundamentals and techniques of operating school buses, and the requirements of various school laws, state and county rules, policies and regulations.

At the completion of this training program, each school bus operator must exhibit a thorough knowledge of the content of this training program by successfully demonstrating proficiency both by the passage of a written examination and a driving skills examination. These elements, combined with a physical examination, drug and alcohol screening, criminal records screening, driving record screening and proper licensure, all combine to create a person who is properly equipped to be a school bus operator.

This latest revision of the training manual will enable West Virginia's school bus operators to move into the twenty-first century as among the best trained and qualified school bus operators in the nation. This enables our school transportation system to remain the safest form of transportation available to anyone, anywhere.

State Superintendent of Schools

SECTION A
INTRODUCTION TO
SCHOOL BUS OPERATOR ROLE AND RESPONSIBILITY

TABLE OF CONTENTS

OBJECTIVES

OVERVIEW YOUR RESPONSIBILITY

YOUR VEHICLE

STATE/COUNTY STANDARDS FOR OPERATOR SELECTION

REPORT FORMS

OBJECTIVES

By the end of this unit, the students should be able to:

1. Describe the responsibilities of members of the pupil transportation system.
 - 1.1 WV Code of Conduct - Policy 5902
2. Describe the requirements for selection of school bus operators.
3. Identify how emotional and physical characteristics affect the operator's tasks.
4. Identify proper reporting and recording procedures.

OVERVIEW:

Before you get behind the wheel of a school bus, there is a great deal you need to know about yourself, your responsibilities and those with whom you work.

The transportation of passengers to and from school is a necessary part of an educational program. Competent school bus operators and standard operation of buses must be realized if a safe, efficient, and economical transportation program is to be realized.

Learning to drive a vehicle the size of a school bus is a difficult task, involving knowledge of related information, visual skills, judgments, decisions and accurate responses. The way in which you learn to perform this sort of task will have a marked effect on your on-the-job performance. You must learn to recognize hazards, understand defenses, and take prompt evasive action.

1. YOU ARE IMPORTANT

It is evident that YOU, the school bus operator, are a very important person with a responsible part to play in our educational system. Your basic function is to provide transportation for passengers to and from school and as needed to complement the instructional program. It is important that this be done safely and efficiently. School bus safety involves much more than merely running a shuttle service. Efficient bus operation prevents accidents. If passenger transportation is to be efficient, it must be safe.

In most instances, you will be the first representative of the school system to

meet the children in the morning and the last to see them at night. While the children are on the bus, their safety is in your hands. Passengers you transport will be as safe as you intend them to be. You can successfully accomplish this assignment and be respected and appreciated as a person who is performing a difficult and necessary service. You are in a position to have a large influence on a child's attitude toward school.

2. YOU ARE A MEMBER OF THE "SAFETY TEAM."

Perhaps in no other area of education does a local board of education or school administrative staff, accept more responsibility for student life and welfare than during the mass movement of children in school transportation vehicles on the public highways, streets and roads of our state. It is absolutely essential that you provide adequate equipment and constantly strive to improve operational safety and efficiency. Most accidents result from errors in sight judgment and action on the part of the vehicle operator. You, as a member of the "safety team", are responsible to make every trip a safe trip.

YOUR RESPONSIBILITY:

A professional school bus operator must accept responsibility. When you drive a bus load of children to school every day in all kinds of hazardous highway and weather conditions, you are charged with a grave responsibility. Just like a ship's captain or an airline pilot, precious human lives depend upon your experience, skill, judgment and attitude.

The vital link to safety, proper driver attitude, knowledge and skill is not just acquired, but must be developed through your interest in safe driving. Not only with intensive pre-employment training, but with continuing education activities, do you upgrade your ability to cope with the constantly changing driving environment. You must be constantly re-evaluating your driving technique.

Developing and maintaining safe driving habits requires consistent practice and periodic refresher courses. No one knows "the real you" as well as you do. Therefore, it is important that you honestly evaluate yourself to be sure that you are physically and mentally prepared for driving your bus.

1. You must be sufficiently rested to be free from fatigue.
2. You must be free from adverse effects of drugs, medication or alcohol.
3. Your personal appearance, grooming and language must be acceptable within your community.
4. You must exhibit the mature mental adjustment and emotional stability needed to cope with the unexpected, as well as, unusual situations.
5. You must have an interest in the welfare and needs of others.
6. You must be willing to display patience and understanding.

YOUR EMPLOYER:

Your employer provides your salary, benefits, a safe working environment (equipment) and establishes qualifications, policies, procedures and regulations for you to follow. The employer also provides supervision necessary to help you provide efficient transportation service within the scope of the established policies and procedures. You are depended upon for safe, efficient and economic operation of your

vehicle and for an attitude and conduct that will enhance school, community and public relations.

YOUR SUPERVISOR:

Someone in your school system is assigned the responsibility of monitoring your performance as an employee. Your supervisor is another member of the "safety team" and is vitally interested in the safety of your riders as well as efficiency and economy of operation, and needs your cooperation. You must be prepared to:

1. Accept responsibility.
2. Accept authority.
3. Exhibit interest in employment continuously.
4. Carry out assignments completely and cheerfully.
5. Gain a working knowledge of written school policy.
6. Communicate with your supervisor.
7. Communicate and discuss problems of discipline, condition of bus, condition of highway, changing conditions of various stops for pick up and discharge of passengers, with your supervisor. The objective of routing buses is more than merely getting pupils to and from school. Of major importance is minimal risk to the pupils and efficient use of buses. Be alert for and discuss with your supervisor:
 - a. Unnecessary interference with traffic patterns and flow.
 - b. Possible pick up and discharge of pupils on home side of street.
 - c. Safest procedures when pupils must cross street, to or from bus.
 - d. Hazardous locations such as dangerous intersections, hills, curves.
 - e. Possible avoidance of railroad grade crossings.

YOUR PASSENGERS:

You should establish a positive relationship with your passengers. Your passengers conduct will depend a great deal on what you say or do.

1. You should greet passengers in a friendly manner.
2. You should use established discipline procedures.
3. You should realize that the average student wants to be treated fairly, equally and as an adult.
4. Most of your students desire recognition of their good traits and behavior.
5. You must maintain an authoritative, yet friendly relationship with all students.
6. You must use positive reinforcement of good conduct.

PARENTS:

Parents are vitally concerned with the safety of their children and will be a positive force in assisting you with problems on the bus. Occasionally through lack of information or misunderstanding, some parents may react negatively. Learn how to properly inform and work with parents. Parents should realize that passengers are expected to sit and be reasonably quiet without causing a disturbance throughout the bus ride.

1. Your discussion concerning a school official or school policy with distraught parents should be done without malice.
2. You should not repeat rumors or idle gossip, but rather communicate facts to proper authorities.
3. You have a responsibility to parents to be on time, be courteous and be cooperative.
4. You shall exercise maximum safety by practicing and displaying good and proper driving skills at all times.
5. You should recognize when you need assistance from school officials in solving parent, passenger or driver conflicts.

YOUR FELLOW EMPLOYEES:

The people with whom you work, usually desire the same courtesy and friendliness that you do. You can help to make their job, as well as yours, a rewarding experience.

1. Be courteous at all times.
2. Be helpful to other school employees.
3. Aid other drivers in checking out lights and use proper driving practices in the area of other buses.
4. Cooperate to promote a congenial working environment by refraining from personal attacks, but rather compliment good work and deeds.

YOUR VEHICLE:

Your school bus is a special vehicle. It is an expensive and well designed machine with many special safety features to protect the children you transport. It is your responsibility to maintain your bus in a safe condition -- ready to do the job.

"School Bus" means every motor vehicle owned by a public or governmental agency and operated for the transportation of children to or from school or privately owned and operated for compensation for the transportation of children to or from school.

WARNING SIGNAL SYSTEM:

8-light System: 17C-12-8(b), Code of West Virginia (b) "It shall be unlawful to operate any flashing warning signal light on any school bus except when any said school bus is stopped or is slowing down to stop on any street or highway for the purpose of permitting school children to board or alight from said school bus."

The 8-light system automatically takes care of activating the "red" flashing lights. The "amber" flashing lights must be properly activated at approximately 200 feet or 5 to 10 seconds prior to making the stop.

The "stop arm" and "crossing control arm" should automatically activate with the "red" flashing lights, when using the 8-light system.

It is the transportation system's responsibility to avoid unnecessary obstruction of traffic, by establishing loading zones off the main traveled portion of the highway whenever possible (with the approval of administration). In such cases the flashing warning lights are not to be used.

When it is necessary for passengers to cross the roadway, while the bus is in the loading or unloading area, the bus shall stop in the proper traffic lane and activate the flashing warning lights.

USE OF HEADLIGHTS:

WV Code 17C-15-2 - School buses are required to display headlights any time they are in operation on any road or highway.

YOUR PUBLIC

Public relations is developing a positive opinion people have of us individually and as a part of our school system.

1. COURTESY

By the way you do your daily job, you each contribute favorably or unfavorably to public relations. The careful, courteous bus operator makes good impressions. The careless, thoughtless operator leaves harmful impressions and creates traffic hazards. For example, if you weave in and out of traffic, you attract more unfavorable attention and more comment than the operator who observes proper lane usage and conforms to speed limits. One discourteous, irresponsible act reflects an unfavorable image on other members of the pupil transportation team.

You are important in the public relations picture. Give thought for a few moments to these facts:

- a. You represent your school system before the public.
- b. Your example is reflected in public opinion on school matters.
- c. While completing your daily route, you have more contact with the public than any other school group since:
 1. large numbers of student riders are involved.
 2. other highway users view the school buses.
- d. Observers expect proficient driving skills and take good performance for granted, and are usually quick to complain of poor driving.

2. COMMUNICATION

You should talk to the individual riders, explain requirements to them and secure their cooperation as a follow-up to group instructions. This type of communication between driver and passenger should be a constant activity. Help passengers to understand and voluntarily follow what is generally considered to be normal and proper behavior on the school bus.

Building desirable public relations is a continuous process. It depends much on the attitude each one brings to their work each day. The driver who is proud of his/her part will not intentionally hurt their system's reputation: he/she will add to it.

This sustains public relations -- the good opinion of the public and of fellow workers. The term "public relations" is misleading because it suggests good relations with only the public. But good relations within one's organization are essential, too.

Public relations begin with fellow drivers, teachers, principals, supervisors, the superintendent and board of education members. An organization whose members have mutual friendliness, interest and respect has met a major requirement of good public relations.

The public expects you to observe every law and safety practice in the operation of a school bus. Extending courtesies to other users of the streets and highways is a positive indicator of your dedication to the responsibilities of school bus operation and will be a tremendous influence for acceptance of the total school program by the public you serve.

ENFORCEMENT OFFICERS:

You should consider enforcement officers part of the "safety team." Their job, as well as yours, is to assure safety on the highways. Their authority and experience may be invaluable to you.

State Police and/or qualified State School Bus Inspectors may inspect your bus

to assure that it is equipped and maintained for safe operation. This is an advantage and protection for you, as well as your passengers. Your full cooperation is required.

They will also assist you in enforcing the safety law requiring motorists to stop when the red flashing warning lights are in operation on your bus. Areas or locations where frequent hazardous operation of other motor vehicles endanger your passengers, will usually be promptly checked by enforcement officers when requested through your supervisor.

STANDARDS FOR SELECTION OF SCHOOL BUS OPERATORS:

Federal standards for school bus operator selection are stated in general terms and serve as guidelines for state and local use.

West Virginia standards are stated in more detail. They are also more restrictive. Care has been exercised to avoid discrimination against any person or persons. The purpose of the added restrictions is to provide competent bus operators that are well qualified to offer safe and efficient transportation to our passengers.

You will be provided a copy of Policy 4336, West Virginia School Bus Transportation Policy and Procedures Manual. Your instructor will discuss the details of school bus operator qualifications as listed therein.

Many persons are selected as new school bus operators each year. School systems have the responsibility of hiring drivers based on their local recruitment and selection policies.

The goal in bus operator selection should be to provide the highest possible quality of transportation service. Each new school bus operator should be selected with the idea of improving the transportation system.

Few occupations involve a more urgent need for proper safety attitude than of driving a school bus. In addition to the responsibilities of professional driving, school bus operators must account for the well-being of the passengers daily entrusted to their care.

School bus operators actually "hold the lives of the pupils in their hands." The many decisions that must be made each mile actually determine whether or not the pupils will arrive at their destination safely. Selection, training and motivation of bus operators must be designed to prevent accidents. Selection is the key to safety. With the right selection, training and motivation will be much more effective.

STATE SELECTION REQUIREMENTS:

1. Must have had at least three year's driving experience as a licensed operator.
2. Must be free from communicable disease and meet all the established physical requirements.
3. Must meet certification training and testing and requirements.
4. Must submit a fingerprint for a pre-employment criminal records check.

5. Must pass a pre-employment alcohol and drug screen as required by the Omnibus Transportation Act of 1992.

REPORT FORMS:

1. MONTHLY SCHOOL BUS SAFETY INSPECTION AND MAINTENANCE REPORT

The items in this report appear to be self-explanatory and all items should be approved before the bus is operated. File this report each month with the county school transportation director. (This is a maintenance report and does not replace the daily pre-trip inspection.)

2. SCHOOL BUS ACCIDENT REPORT

An accident is defined as: "If your bus bumps, touches or scrapes another vehicle or object so as to leave a mark on either the bus or the other object." A verbal report shall be made immediately, and a written report shall be made within 24 hours to the county transportation director of any accidents in which the bus or passengers have been involved.

Give this report to your county transportation director in duplicate. The form should be helpful in determining safety standards in school bus operation in the future, in addition to showing that you have carried out your responsibility by making an official report of exactly what happened in so far as you are able to determine. In case of an accident involving serious injury to persons or property, solicit aid of the state police and county transportation director in preparing a detailed report. This report must bear the signature of the school bus operator and county transportation director.

3. SCHOOL BUS SUPPLY RECORD

List amounts of supplies and dates they were used on your bus.

4. DAILY OPERATING SCHEDULE

This form, for both morning and afternoon schedules should be completed as early as possible. All items should be filled in for every line used. If stops do not have names, you may assign names for the purpose of identification. Sufficient space should be provided for you to add stops if they become necessary. If, after the schedule is complete, a stop is added between stop 7 and 8, for example, the stop should be number 7a. Every stop should be listed. A copy of this Daily Operating Schedule should be posted in your bus for reference after this official schedule is approved by your county board of education or their authorized school official.

5. SCHOOL BUS SCHEDULE AND ENROLLMENT

Bus Number: List the number that identifies your bus.

Operator: Give the full name of the operator regardless of the ownership of the bus.

Schools Served: List each school served and the number of trips to each school, beginning with the first school served and then continuing with the other schools in the order in which the schools are served in the morning.

Stop Number: List the bus stops in the order in which the bus stops to load passengers in the morning, beginning with Stop No. 1. Opposite the bus stop number you are to list the name of the stop. List all of the pupils below the bus stop name who board the bus at that stop. This procedure should be followed

with each subsequent bus stop. It is suggested that you leave blank lines between bus stops to take care of late enrollments and transfers.

Passengers and stop names according to bus stops. List the passengers by bus stops in the morning schedule, leaving sufficient space to provide for all passengers on the bus route. Be sure to list the school as a bus stop, even though the school may be the end of the morning route. List each school at which the bus stops, giving the name of the school, the time of the bus stop, and the stop number.

Minutes on the Bus: Give the minutes each passenger is on the bus from the time they board the bus until they are unloaded at school. This time may be found by subtracting the time the passenger gets on the bus, as shown by the time of the bus stop, from the time the passenger reaches the school they attend as shown by the bus stop at that particular school.

Miscellaneous County Reports: Local county reports may include, but are not limited to, reports and/or forms such as follows:

1. Pre-trip Inspection
2. Preventative Maintenance
3. Time Sheet
4. Extra Duty Assignments
5. Bus Shelter Reports
6. Emergency Evacuation Drill
7. Emergency Information Sheet
8. Discipline Report
9. Personal Data Sheet
10. Abbreviated Run Report
11. Fuel Data Sheet
12. Personal/Sick Leave Form

SECTION B

INTRODUCTION OF SCHOOL BUS OPERATION

TABLE OF CONTENTS

OBJECTIVES

OVERVIEW

STARTING THE ENGINE

SHIFTING GEARS AND ACCELERATING

SECURING THE BUS

SCHOOL BUS INSPECTIONS

PRE-TRIP INSPECTION PROCEDURES

POST-TRIP INSPECTION PROCEDURES

OBJECTIVES

By the end of this unit, the students should have:

1. Knowledge of Starting the Engine
2. Knowledge of the Clutch and Transmission
3. Knowledge of Securing the School Bus
4. Knowledge of Pre-Trip Inspection

OVERVIEW:

This unit is to teach you the basic skills necessary to operate school buses safely and efficiently in transporting this most valuable cargo. To accomplish this, well-trained and safety oriented drivers are required.

An established comprehensive training program will teach you the procedures for basic driving skills and techniques, maneuvers, detecting hazards, potential hazards, appropriate driving techniques, positioning of the school bus and emergency conditions.

School bus operators hold the greatest responsibility of any other driver today. In past years, accidents involving school buses were caused by the school bus operators in approximately half of all accident cases. Those school bus operators did not follow procedures of driving fundamentals. Through practice, correct basic procedures will become a habit and will improve your performance as a school bus operator.

To be a good bus operator, you must position yourself in control; you must be able to reach and operate the controls in comfort and be able to see the areas all around the bus as part of the pre-trip inspection.

1. Adjust the seat so that all controls can be operated properly and are unobstructed.
2. Adjust (or check) all mirrors for optimum rear vision of traffic behind the bus, and for proper vision to both sides and across the front of the bus.
3. Fasten and adjust driver safety restraint (dsr), which is to be worn when bus is in use.
4. Go through shift pattern with clutch depressed, if bus make is unfamiliar.

Locate and check operation of all switches and controls:

1. windshield washer/wiper
2. master switch for flashing warning lights
3. heater and defroster fans
4. headlights and dimmer switch
5. marker lights
6. interior lights
7. other

Locate each instrument and dial on the dash panel and determine its function:

1. vacuum
2. air
3. amp
4. oil gauge
5. temperature gauge
6. fuel gauge
7. other

STARTING THE ENGINE:

The procedure used in starting a bus engine must become a matter of routine. It must incorporate principals of safety and be performed in keeping with good engine preventative maintenance practices.

1. Set parking brake to keep bus from moving.
2. Depress clutch pedal to disengage engine, if transmission is manual.
3. Shift gear lever into neutral position.
4. Turn on ignition key to complete electric circuits.
5. Engage starter switch with clutch depressed and gear shift in neutral.
 - a. Use foot accelerator sparingly. Pumping will cause carburetor flooding.
 - b. Bus engines will vary widely in gasoline and diesel sensitivity; therefore, do not hesitate to ask the supervisor or bus mechanic for special techniques in starting a particular bus.
6. Warm up engine at fast idle; do not race the engine.
7. Check instruments to see that all are registering properly:
 - a. Ammeter registering in plus direction.
 - b. Oil gauge at middle of instrument.
 - c. Temperature gauge.
 - d. Fuel gauge registering full (or enough to complete run).
 - e. Vacuum gauge light is not on (for hydraulic brakes).
 - f. Air pressure gauge light and/or buzzer are not on (for air brakes).
 - g. Air pressure gauge(s) registering properly

SHIFTING GEARS AND ACCELERATING:

Gear shifting is a phase of bus driving which requires skill and practice. You must learn the best range of speed in changing gears upward and downward. You must shift the gears without losing your view of the road. Synchro-mesh transmissions have alleviated most of the gear clashing. Generally, buses are equipped with a four, five or six speed transmission.

1. Know the gear positions.
 - a. Check chart on lever knob or on dash.

- b. Ask instructor, supervisor or mechanic.
- 2. Depress clutch pedal
Load and/or terrain shall dictate the appropriate gear necessary for take off.
- 3. Depress foot brake.
- 4. Release parking brake.
- 5. Release clutch gradually to friction point and hold. Release foot brake.
- 6. Depress accelerator. Hold point of clutch friction and slightly depress accelerator to increase the power to prevent stalling.
- 7. Release clutch.
 - a. Slowly and gradually release the clutch to the remainder of pedal travel and at the same time slowly and gradually increase the acceleration.
 - b. Remove foot from clutch pedal completely.
 - c. Pick up engine speed before shifting to higher gear.
- 8. Shift to next higher gear.
 - a. Depress clutch pedal and release accelerator.
 - b. Shift to next higher gear.
 - c. Release clutch smoothly but more quickly.
 - 1. To prevent loss of vehicle speed.
 - 2. Do not race the engine and slip the clutch.
 - d. Remove foot from clutch pedal.
 - e. Proceed in this gear until proper vehicle speed is reached for shifting to next gear.
- 10. Repeat Step 9 procedures until the bus is in cruising gear.
- 11. Don't skip a gear in up-shifting or down-shifting as this causes undue engine and clutch wear.
- 12. Shift up or down as may be necessary to prevent engine lugging or excessive engine revolutions per minute (RPM).
- 13. In going down a hill, shift into the gear that would be used in going up the hill or one gear lower, before starting down grade with the same load.

SECURING THE BUS:

You must be able to secure the bus so that it will remain stationary and well protected from unauthorized use. Follow these steps:

- 1. Set the parking brake.
- 2. Shift to low gear.
- 3. Check instrument for normal readings.
- 4. Turn off ignition and remove key.
- 5. Upon leaving bus, secure door.
- 6. Take safety equipment (fire extinguisher, etc.) to storage, if required.

SCHOOL BUS INSPECTIONS:

You must inspect your bus. Safety is the most important and obvious reason. Inspecting your bus helps you to know your vehicle is safe. Such inspections will help insure the safety of the motoring public, you and your passengers. Federal and State laws, WV Department of Education and county rules and regulations require inspection by the driver. Federal, State and county inspectors also inspect your bus. This practice

will also decrease the maintenance costs of transportation program. The few minutes you invest may pay rich dividends in the savings of lives and property, and could be a factor in your defense if a component or system malfunctions while the bus is in service.

There are three types of inspections you must perform:

1. Pre-Trip Inspection
2. During a Trip Inspection
3. Post-Trip Inspection

The most extensive of the three types of inspections you will engage in is the pre-trip inspection. During this inspection you should play like a detective, digging into every nook and cranny, investigating for evidence that your vehicle is either ready or not ready to transport passengers safely.

VEHICLE INSPECTION RESPONSIBILITIES:

1. Follow a regular routine.
2. Inspect inside and outside.
3. Listen for telltale noises.
4. Test vehicle components.
5. Make adjustments.
6. Report defects.
7. Record the inspection.

THE MAJOR COMPONENTS INCLUDE:

1. Under hood checks.
2. Outside walk around.
3. Drivers compartment.
4. Passenger compartment.
5. Outside checks.
6. Reporting and recording procedure.

PRE-TRIP INSPECTION PROCEDURE:

You do a pre-trip inspection before each trip to find problems that could cause an accident or breakdown. You should do a pre-trip inspection the same way each time so you will learn all the steps and be less likely to forget something. The following procedure should be a useful guide.

School Bus Pre-Trip Inspection
Guide for the
West Virginia Dept. of Education

**SCHOOL BUS PRE-TRIP INSPECTION GUIDE
WEST VIRGINIA DEPARTMENT OF EDUCATION**

1. VEHICLE OVERVIEW:

- a. Approach the bus and check general condition.
- b. Look for damage and vandalism.
- c. Looking for vehicle leaning to one side.
- d. Look under the engine and transmission for evidence of fresh oil, coolant, grease, or fuel leaks.
- e. Check for pipes, wires, hoses, etc. hanging under the vehicle.
- f. Check windshield for damage and appropriate stickers
- g. As you walk down the left side of the bus check the battery door for proper operation, check battery box for vandalism.
- h. Check the batteries for frayed wires and corrosion. Make sure the batteries and tray are secure.
- i. As you continue down the left side of the bus on to the rear of the bus check the area around the vehicle for hazards to vehicle movement (people, other vehicles, objects, low hanging wires, limbs, etc.)
- j. Check the rear door for vandalism and if it is not locked open the door and check inside the bus at the rear and under the seats for vandalism.
- k. Continue to the right side of the bus. Stop at the storage box and check the safety equipment for vandalism.
- l. At this time install your wheel chocks.
- m. Check for leaks & vandalism to the fuel tank. (Check fuel cap)

2. ENGINE COMPARTMENT:

- a. Check that the parking brake is on and the wheels are chocked. The bus keys in your possession.
- b. Open the hood and make sure that the safety latch, rod or cable are in the hold position.

3. CHECK THE FOLLOWING:

- a) Excessive oiliness or greasiness, missing or loose parts and frayed wires.
- b) Engine Oil Level:
 - 1) Check oil level making sure it is above the "ADD OIL" line.
 - 2) Be certain that the oil level is not overly full.
- c) Coolant Level:
 - 1) Look at the sight glass in the reservoir, or remove the radiator cap and check the fluid level. **NOTE: IF THE ENGINE IS AT OR NEAR OPERATING TEMPERATURE, DO NOT REMOVE THE RADIATOR CAP.**
 - 2) Check the radiator hoses and heater hoses.
 - 3) Check for cracked, worn, frayed hoses, secure couplings, rubbing components and listen for air leaks.

- 4) Check WATER PUMP for leaks, belt condition and tightness
- d) Belts
 - 1) The belt (s) should not be frayed, no visible cracks, loose fibers, and no signs of wear.
 - 2) Check the belt(s) for proper tension. Push the belt (s) with your hand and if it deflects more than a ½” to ¾” of an inch slippage is probably excessive.
- e) Air compressor:
 - 1) Check the mounting and belt condition, if equipped.
 - 2) Check the oil line (s) for leaks
- f) Automatic transmission:
 - 1) Check the fluid level.
- g) Windshield washer fluid
 - 1) Check fluid level
- h) Alternator:
 - 1) Check the mounting and belt condition.
 - 2) Look for loose wires and connections.
- i) Power Steering
 - 1) Keep the oil level above the “ADD OIL” line
 - 2) Check the belt for proper tension and condition, if equipped.
- j) Steering Box
 - 1) Look for missing nuts, bolts, cotter keys, etc.
 - 2) Look for power steering fluid leaks and damage to power steering hoses.
- k) Pitman Arm
 - 1) Look for missing nuts, bolts, cotter keys, etc. (looseness between the pitman arm and steering shaft)
- l) DRAG LINK:
 - 1) Look for missing nuts, bolts, cotter keys,(dust boots damaged or missing) etc.
- m) STEERING ARM:
 - 1) Look for cracks, dents and make sure the steering arm rotates.
- n) TIE ROD ASSEMBLY:
 - 1) Look for dents, cracks, missing nuts, bolts, cotter keys, (dust boots damaged or missing) etc.
- o) FRAME:
 - 1) Check for loose attachments, check for cracks and bent or broken cross members.
- p) SPRINGS:

- 1) Look for broken or missing leaves. Look for shifted leaves that could come in contact with a tire, rim, brake drum, frame or body.
 - 2) Look for cracked or broken spring hangers, broken, missing, loose or damaged bushings or bolts, loose or missing axle mounting parts.
- q) SHOCK ABSORBERS:
- 1) Check bushings, mounting and for leaks.
- r) BRAKES:
- 1) Check the **BRAKE CHAMBER**, for cracks, dents and it is securely mounted.
 - a) Check that the push rod is not bent or binding
 - 2) Check the **SLACK ADJUSTER**, for broken, loose or missing parts.
 - i. When pulled by hand, the brake rod should not move more than the approximately one inch.
 - ii. Check for pins and retainers
 - 3) Check the **BRAKE DRUM** for cracks or holes.
 - 4) Check inside wheel seal for leaks
- s) TIRES:
- 1) Checks tread depth for a minimum of 4/32 of an inch on the front.
 - 2) Look for uneven wear, cuts, or damage to the tread or sidewalls. (no retreads on the front)
 - 3) Check that the valve caps (shall be of the metal type) and stems are not missing or damaged.
 - 4) At least once a week, check for proper inflation with a tire gauge.
 - 5) When inflating, use manufacturing specification that is stamped on each tire.
- t) RIMS:
- 1) Check for damaged or bent rims, no repair welds.
 - 2) No rust trails that indicate rim is loose on wheel.
- u) LUGS NUTS:
- 1) Check that all lug nuts are present and not loose.
 - 2) No cracks at lug nut bolt holes
 - 3) Look for rust around the lug nuts. (which could indicate that the lug nuts are loose)
- v) HUB Cover:
- 1) Check to see that the wheel hub seal is not leaking.
 - 2) If it has a sight glass, check that oil level is adequate
- w) MUD FLAP:
- 1) Should be secure and not damaged.
- x) CLOSE AND LATCH HOOD:

y) **MIRRORS:**

- 1) Check physical condition, no loose bolts, no broken glass and securely mounted and etc.

DRIVER CHECK AREA:

1. SAFETY EQUIPMENT:

- 1) Check for a charged and a properly rated FIRE EXTINGUISHER. (ABC)
- 2) Check for proper date on inspection tag.
- 3) Check for red reflective triangles (THREE).
- 4) First aid kit, with 36 units and scissors.
- 5) Body fluid cleans up kit.
- 6) Seat belt cutter (full hand- replaceable blade within reach of driver).
- 7) Spare fuses.
- 8) Video securely fastened (if equipped).

2. WINDSHIELD:

- 1) Check for current **DMV AND DEPARTMENT OF EDUCATION** stickers.
- 2) Check for cracks, dirt, illegal stickers and other obstructions to the drivers view.

3. INSIDE DOCUMENTATION:

- 1) Rules and regulations, code of conduct, Proper registration and current schedule.
- 2) Check for condition and adjustment of sun visor (it should never be towards the driver).

4. TURN KEY ON AND CHECK:

- 1) Horn, (high and low).
- 2) Windshield washers and wipers: (high, low and variable speed if equipped)
- 3) Heaters, defrosters & fans (high & low).
- 4) Dome lights.

5. ENGINE START CHECKS:

- 1) Depress clutch (if equipped)
- 2) Listen for unusual NOISES.
- 3) Check OIL PRESSURE GAUGE; should come up to normal within seconds after starting engine.
- 4) Ammeter should show a positive charge.
- 5) Voltmeter should approximately 14 volts.
- 6) Fuel; enough to make a trip.
- 7) Fuel/water separator indicator if equipped.

6. CHECK STEERING WHEEL:

- 1) No more than (10) degree of play in wheel.

7. CLUTCH:

- 1) Depress clutch and check for free travel and engagement (if equipped)

8. GEAR SHIFT:

- 1) Check for smooth operation.

9. IN SEAT CHECK:

- 1) Turn right signal and check indicator.
- 2) Turn head lights on and activate high beam. (Check indicator)
- 3) Turn clearance lights on.
- 4) Turn strobe light on.

10. CHECK OUTSIDE OF BUS:

- 1) Right signal on side of bus, cowl and front of bus.
- 2) High beam headlights.

11. PASSANGER AREA CHECK:

- 1) Check stepwell light.
- 2) Check hand rail mounting, make sure it securely fastened.
- 3) Check steps and stepwell tread
- 4) Check entrance door glass.
- 5) Check service door controls. (close door)
- 6) Activate (8) way lights and check indicators.
- 7) Turn key on if it is off.

12. WALK BACK THROUGH CHECK:

- 1) Check seats for loose, damaged bottoms, frames, front and back. Make certain seat bottoms are latched if equipped.
- 2) Open rear emergency door and check for proper operation, instructions, buzzer and door stop/prop.
- 3) Check right rear signal light.
- 4) Check backup lights and listen for backup alarm.
- 5) Check brake lights.
- 6) Check rear amber lights
- 7) Close emergency door.

13. WALK TOWARD FRONT OF BUS CHECK:

- 1) Check back of seats.
- 2) Check emergency windows for proper operation, latches, instructions and buzzers. (make sure windows open fully)
- 3) Check strobe light.
- 4) Look for loose or foreign objects.

14. SET IN DRIVER SEAT CHECK:

- 1) Turn left signal light on and check indicator.

- 2) Turn head lights on low beam.
- 3) Open entrance door activate 8 way red lights and check indicator light.
15. **OUTSIDE CHECK: Right Hand side**
 - 1) Check clearance lights, reflectors, lettering and numbers.
 - 2) Check storage box for chains, stretchers and wire for broken links.
16. **DRIVE SHAFT:**
 - 1) Make sure shaft is not bent or cracked.
 - 2) Couplings appear secure.
 - 3) Safety loops are in place.
17. **Rear TIRES, INNER & OUTER:**
 - 1) Check tread depth, rear tires should not have less than 2/32 of an inch.
 - 2) Check for uneven wear, cuts or damage to the side walls.
 - 3) Check for missing or damaged valve (shall be of metal type) caps or valve stems.
 - 4) Check tire at-least once a week for proper inflation with tire gauge. (if it is necessary to inflate a tire use manufactures specifications that are stamped on the side of the tire.)
18. **RIMS:**
 - 1) Check for a damage or a bent rim, no welding repairs.
 - 2) Check for rust trails which would indicate a rim is loose on the wheel.
19. **LUG NUTS:**
 - 1) Check that all lug nuts are present and not loose.
 - 2) Check for rust trails around the lug nuts which would indicate they are loose.
 - 3) Check for cracks around lug bolt holes.
20. **AXLE SEALS:**
 - 1) There should no signs of leaking lubricants. (this includes the inside and outside seals)
21. **SPACERS: If equipped**
 - 1) Check wheels for even spacing.
 - 2) Check that tires are not touching one another.
 - 3) Check for objects between tires.
22. **BRAKES:**
 - 1) Check for damaged lining.
 - 2) Check for sufficient lining. (minimum of 5/16 of an inch on rear & 1/4 of inch on front)
 - 3) Check hoses for fraying or cracked and secure connectors
 - 4) Check **CHAMBERS** for cracks, dents, and securely mounted.
 - 5) Check that push rod is not bent or binding.

- 6) Is securely fastened to the slack adjuster.
- 23. **SLACK ADJUSTER:**
 - 1) Check for broken, loose or missing parts (pins and retainers).
 - 2) Check angle between push rod & adjuster arm.
 - a. Angle should be a little over 90 degrees with brakes released.
 - b. Angle should not be less than 90 degrees brakes applied.
- 24. **DRUM:**
 - 1) Check for cracks, dents and holes.
 - 2) Check for loose or missing bolts.
- 25. **SPRING/AIR SUSPENSION:**
 - 1) Check for broken or shifted leaves.
 - 2) Check the mounts, brackets, bolts, bushings, air bags if equipped.
- 26. **SHOCK ABSORBERS:**
 - 1) Check bushings and for secure mounting.
 - 2) Check for fluid leaking from shock.
- 27. **MUD FLAP:**
 - 1) Should be securely mounted and not damaged.
- 28. **REAR BUS CHECK: Check for proper operation and condition**
 - 1) Clearance lights.
 - 2) Red 8 way lights.
 - 3) Tail lights.
 - 4) Reflectors.
 - 5) License plate and light.
 - 6) Open emergency door. (Check outside lettering)
 - 7) Automatic chains. (If equipped)
 - 8) Check **FRAME** for:
 - a. Cracks or bends.
 - b. No loose, cracked, bent or missing parts.
 - c. Check **springs, mounts, shock absorbers, and if equipped air bags.**
- 29. **DIFFERENTIAL:**
 - 1) Check for leaks.
- 30. **LEFT OUTSIDE CHECK: For proper operation and condition**
 - 1) Check clearance lights, reflectors, & emergency window instructions.
 - 2) Mud flap securely mounted & no damage.
 - 3) Tires, rims, lug nuts, axle seals, & spacers.
 - 4) Brakes. (same as right side)
 - 5) Exhaust system.

- a. Visible parts securely mounted
 - b. No separation holes or leaks.
- 6) Check FRAME for:**
- a. Cracks or damage
 - b. Loose, cracked, bent, broken or missing parts.
- 7) Check STOP ARM (SIGN) for:**
- a. Proper lights, wires and cables.
 - b. Air leaks and condition of boot.
 - c. Check sign for lettering and fading
- 31. FRONT OF BUS: Check for proper operation & condition of;**
- 1) Left turn signal.
 - 2) Clearance lights.
 - 3) Red 8 way lights.
 - 4) Low beam & park lights. (If equipped flashing head lights)
 - 5) Crossing gate for proper condition, and deployment. (Check air boot for air leak and condition, Deployment speed should be appropriate as not to cause injury)
 - 6) 4 way hazards.
- 32. ENTER BUS:**
- 1) Check and adjust seat.
 - 2) Check and adjust mirrors.
 - 3) Check and fasten seat belt.
 - 4) Check odometer and enter it on PUPIL TRANSPORTATION PRE-TRIP INSPECTION FORM.

AIR BRAKE CHECK (TEST):

(If Wheel Chocks have not been installed they must be installed at this time)

- 1) If it is necessary to start the engine to build air pressure make sure the park brake is set and transmission is in neutral (automatic or standard). Start engine and build air pressure to 120/125 PSI.
- 2) Turn engine off (if equipped with a standard transmission place transmission in low gear).
- 3) Turn **KEY** on. (Run Position)
- 4) Push park brake knob in. (release position)
- 5) After initial drop in pressure you should have no more than a 2PSI loss in (1) minute with foot off of service brake.
- 6) Apply service brake, after initial drop there should be no more than a (3) three PSI loss in one minute.

- 7) Pump the brake pedal (service brake) until low air pressure warning light and buzzer should activated by 60 PSI.
- 8) Continue to pump the brakes until the parking brake sets, (Knob pops out) at approximately 20 to 45 PSI.
- 9) Start engine and build air pressure up to approximately 60 PSI at which time the low air warning devices should go off.
- 10) Continue to build air pressure up until it reaches approximately 85 PSI.
- 11) The system should build air from 85 PSI to 100 PSI within 45 seconds at engine idle.
- 12) Continue to build air to 120/125 PSI at which time the governor should cut out and stop building pressure.
- 13) Checking the cut in/cut out pressure of the air compressor governor with engine at idle. Pump the bus air pressure down and the compressor should start building air at 90/100PSI and cut out (stop building air) at 120/125 PSI.
- 14) Turn bus off and remove keys from ignition and remove wheel chocks from wheel and put them in the storage box. Make sure that the park brake is set (Knob out) place the bus in gear and pull against the Park brake.
- 15) Test the service brake: release the park brake (Knob in), pull the bus forward at approximately (5) five MPH and firmly apply the service brake (foot pedal). **(NOTE ANY PULLING TO ONE SIDE, UNUSUAL FEEL OR DELAYED STOPPING ACTION.) If bus has passed all aspects of the test you are ready to begin your route.**

SPECIAL NEEDS EQUIPPED BUSES WILL REQUIRE ADDITIONAL TRAINING

DURING A TRIP INSPECTION:

- a. Watch your gauges for signs of trouble.
- b. Use your senses (look, listen, smell) to check for problems.
- c. Bus drivers should stop at least every 2 hours or 100 miles (which ever comes first) and check:
 1. Tires, wheels, rims
 2. Brakes
 3. Lights
 4. Doors

POST-TRIP INSPECTION:

- a. Check the tires, brakes, lights, and emergency signaling devices.
- b. Report any problems.
- c. Drivers are responsible for conducting a walk-through inspection of the school bus following drop-offs at each school and after the last delivery on each run segment.

Prior to departing the bus for any length of time, a walk-through inspection must be conducted. The purpose of the walk-through inspection is to check on and under the seats for sleeping or hiding students and to identify any items that may have been dropped or left aboard the bus. Warning flag systems and/or electronic means may be used. Written policies and procedures should be in place for post-trip and post-run segment checks.

- d. If the vehicle is not equipped with a child minder a written verification of the operators examination of the interior of the bus for students, loose items and damage shall be completed.

SECTION C
DRIVER FUNDAMENTALS
CONTROLLING THE POSITION OF THE BUS
TABLE OF CONTENTS

OBJECTIVES

OVERVIEW

OBSERVING PROCEDURES

MAKING SURE YOU ARE OBSERVED

STEERING AND TURNING

BACKING IN A STRAIGHT LINE

BEING OVERTAKEN AND SPEED

OVERTAKING AND PASSING

STOPPING AND PARKING A BUS

RAILROAD CROSSINGS

STARTING AND STOPPING ON A HILL

SKILLS YOU WILL NEED

LONGITUDINAL SEPARATION PROCEDURE

LATERAL SEPARATION PROCEDURE

ENTERING THE FLOW OF TRAFFIC

ADJUSTING THE SPEED OF THE BUS

LANE USE AND POSITION ON ROADWAY

ESTIMATING REQUIRED SPACE

STRUCTURE WITH RESTRICTED SPACE

DRIVING ON RURAL HIGHWAYS

DRIVING IN URBAN TRAFFIC

NIGHT DRIVING

DRIVING UNDER ADVERSE WEATHER CONDITIONS

EXPRESSWAY DRIVING

OBJECTIVES

By the end of this unit, the students should be able to control the position of the bus by:

1. Estimating required space for the bus.
2. Observing the position of other vehicles
3. Making sure other drivers observe them.
4. Maintaining adequate separation between the bus and all other objects and pedestrians.

OVERVIEW:

Beginning drivers too often learn to drive only under favorable driving conditions and probably with a lighter vehicle than a school bus. Then, when they have to drive a heavy bus under unfavorable road, light, traffic or weather conditions, they continue with the only driving practices they have learned and run into trouble.

Special or unusual driving conditions put special responsibilities on you. They lengthen the stopping distance or danger zone. Under unfavorable conditions, you must reduce vehicle speed merely to maintain the same margin of safety that you keep under favorable conditions.

You operate your bus over a variety of roads and under varied conditions. It is necessary to adapt your driving habits to the conditions under which you are driving. On poor roads, a considerable part of your attention should be devoted to getting through safely with the greatest degree of comfort to the passengers and without damaging the bus. On main highways, a large part of your attention should be concentrated on other traffic on the road. Know how the bus is going to respond on different types of roads and what the braking distance will be on different road surfaces -- under normal conditions and when rain, snow, or ice is present.

Observing Procedures:

You must observe and be prepared to respond to other vehicles in the following situations:

1. When unusual noises occur.
 2. Vehicles approaching from ahead.
 - a. Approaching intersections and interchanges.
 - b. Before attempting to pass.
 - c. When overtaking cars ahead.
 - d. Approaching parked cars.
 - e. When entering traffic.
 3. Vehicles following from behind.
 - a. General.
 - b. When changing lanes.
 - c. When preparing to pass.
 - d. When leaving traffic.
 - e. When entering traffic.
 - f. At intersections and interchanges.
 - g. When slowing and stopping.
 4. Cross traffic.
 5. Other road users:
 - a. 12-15 Second Rule - look 12-15 seconds down the road.
 - b. **S-I-P-D-E Process** -
 1. **Sense** - center scan-check instruments and mirrors.
 2. **Identify** - where, when, how, relating to senses.
 3. **Predict** - ability and process assumption.
 4. **Decide** - determine action to be taken.
 5. **Execute** - behavior action taken.
 - c. Commentary driving - say aloud what you see.
- National Safety Council
1. Recognize the hazard
 2. Understand the Defense
 3. Act correctly in time

Being Observed:

Make sure that you are observed by other drivers and road users through the following:

1. Use of brake lights when slowing or stopping.
2. Use of turn signals when changing lanes.
3. Use of lights, horn and appropriate acceleration when passing.

Separation:

You must maintain adequate separation -- a safe margin of space between your bus and other vehicles as follows:

1. Longitudinal separation
 - a. following distance
 - b. overtaking

2. Lateral separation
 - a. passing
 - b. being passed
 - c. approaching oncoming vehicles
 - d. approaching parked vehicles
 - e. approaching turning vehicles
 - f. approaching other road users

OBSERVING PROCEDURES:

1. You must be able to respond to specific AUDITORY CLUES for the environment (which includes other traffic, pedestrians, and animals) in order to drive safely.
 - a. Attempt to identify the sources of unusual sounds, including sounds of emergency vehicles, screeching tires, horns and whistles, (trains, etc.).
 - b. Look in the direction of the noise, using the mirrors to help locate the sound.
 - c. Note whether the noise is continuous or intermittent or whether its intensity is increasing or decreasing as an indication of whether the source of the sound is approaching or leaving, or completely irrelevant to the intended path of your bus.
 - d. Audibility may be improved by opening the window. In addition, to improve the detection of warning signals, minimize passenger noise level within the bus.

2. Observe Vehicles Ahead
 - a. When negotiating intersections:
 1. Observe the oncoming traffic for an indication of a left turn.
 2. If turning left, check to make sure that the oncoming traffic has not anticipated a green light.

- b. Look ahead and note indications of vehicles leaving parking spaces by:
 - 1. Observing the vehicle driver's hand signals or activated directional turn signals.
 - 2. Noting the vehicle's lighted back-up lights or brake lights.
- c. Observe other traffic when negotiating a safe exit from parking spaces.
 - 1. If parked at an angle and backing out, check the traffic behind and the vehicles to each side of traffic behind and the vehicles to each side of the bus.
 - 2. If parked at an angle and exiting facing a traffic lane from a perpendicular space, check the traffic to both sides of the front of the bus.
 - 3. If parallel parked and a parked vehicle is ahead, check for traffic before entering the roadway.
- d. Observe the vehicle ahead and do not pass if the lead vehicle is:
 - 1. Signaling or otherwise indicating a left turn.
 - 2. Changing lanes preparing to pass.
 - 3. Weaving or Wandering
 - a. In this case, sound the horn or flash the headlights to alert the driver of the lead vehicle. If the weaving does not cease, wait until you can pass with at least one-half lane separation.
 - 4. Decelerating suddenly.
 - 5. Passing children, cyclists or animals.
 - 6. Being passed by another vehicle.
 - a. In this case, wait until the lead vehicle has been passed, your view of the road ahead is clear and an acceptable gap is present.
- e. Adjust your speed to changes in the speed of the lead vehicle. Not indications of reduced speed, such as:
 - 1. Hand signals from the lead vehicle driver.
 - 2. Activations of the lead vehicle's brake lights or directional turn signals.
 - 3. Vehicles in front of the lead vehicle which are changing speed, causing the lead vehicle's speed to change.

- f. Watch for slow-moving vehicles on a long or steep upgrade and downshift. Some states require vehicles going less than 40 mph to use their emergency flashers.
- g. Check the traffic to the front and rear when entering traffic.

Specifically:

- 1. Yield to the rear-approaching traffic.
- 2. Look for a suitable gap in the traffic.
- 3. Note the vehicle that you plan to enter behind and activate the turn signal as the vehicle passes.

3. Observe vehicles behind in order to drive safely.

- a. In general, you should be able to react appropriately to being followed.

Specifically:

- 1. Make smooth gradual stops and observe the roadway and traffic ahead to anticipate stop requirement.
- 2. Check mirrors frequently to assess the traffic situation behind. Watch for tailgating vehicles and for the following vehicles directional signals indicating an intent to pass.
- 3. Avoid looking at the mirrors if being followed closely at night by a vehicle with high beams on.

- b. Look for rear-approaching traffic in the new lane when deciding to change lanes. You should:

- 1. On multi-lane roads, look for vehicles about to enter the new lane from the far adjacent lane.
- 2. Check all mirrors to observe vehicles passing in the new lane, following vehicles closing fast from the rear in the new lane, and following vehicles about to enter the new lane.

- c. When approaching an upgrade, check the traffic for trucks or other heavy vehicles that may be "highballing", i.e., approaching a long or steep hill with excessive speed.

- d. When negotiating a downgrade, periodically observe the traffic behind for vehicles which may be accelerating excessively.

4. Observe cross traffic in order to drive safely.
 - a. Observe the traffic ahead and from the left and right when approaching and traversing intersections. Specifically:
 1. Watch for vehicles which are close and fast approaching the intersection and decelerate or stop to permit those vehicles to clear the intersection.
 2. Watch for vehicles approaching from the left and signaling a right turn. Prepare to enter the intersection only after the vehicle has begun the turn.
 3. If your vision is obscured (e.g., by buildings, trees, parked vehicles, etc.), stop at the intersection and edge forward slowly.
 - b. Observe other traffic when moving with traffic. Specifically:
 1. Scan the traffic situation and the roadway on tour well ahead, in addition to watching vehicles surrounding the bus.
 2. Periodically observe vehicles in adjacent lane(s) in case that lane is needed for maneuvering or passing.
5. Observe pedestrians and animals in order to drive safely.
 - a. You should respond to pedestrians and animals appropriately. Specifically:
 1. Watch for pedestrians or animals entering the roadway from the front of or between parked vehicles.
 2. Watch for pedestrians near intersections, crosswalks, and school crossings. Decelerate and proceed cautiously if pedestrians are near.
 3. When stopped at intersections and noting pedestrians waiting to cross with large or heavy objects, remain stopped to allow the pedestrians to proceed.
 - b. Watch out for animals (domestic and wildlife) in the roadway.
 - c. When in danger of striking a pedestrian or cyclist, check the traffic for space
 - d. to take evasive action and reduce your speed.

Add here any particular observation techniques you find useful and include other things to observe that are pertinent in your area if they aren't covered in this section.

Now you'll practice observing, being observed, and maintaining separation while actually driving on the road. Your instructor will describe the planned route and review the Commentary Driving Technique by the following planned exercises.

MAKING SURE YOU ARE OBSERVED:

You must be able to utilize signaling devices and technique to ensure that other drivers are aware of your intentions and to warn other drivers of potential hazards.

1. Signal appropriately to traffic behind you under the circumstances indicated:
 - a. Signal your intention to decelerate or stop, by using brake lights -
 1. When determining the suitability of a parking space.
 2. When preparing to park parallel or to exit from a parking space.
 3. When parking at an angle.
 4. In response to the actions of the vehicles ahead.
 - b. Signal your intention to change lanes or direction, by using directional turn signals well in advance.
2. Signal your intention to pass:
 - a. To the lead vehicle -- by flicking your headlights at night or by sounding the horn.
 - b. To traffic following -- by activating the left turn signal well in advance of initiating the passing procedure.
3. Signal appropriately your intention to turn, using directional signals:
 - a. When leaving a parallel parking space to enter traffic.
 - b. When leaving traffic.
 - c. At intersections at the appropriate time.
 - d. When approaching and entering an off-ramp without a deceleration lane.
 - e. When leaving an off-street area facing traffic.
 - f. When preparing to change lanes or direction.

4. As a warning to other drivers:
 - a. Tap the brake pedal lightly --
 1. To signal following traffic (and to reduce speed) if the lead vehicle changes speed.
 2. To signal following traffic if an oncoming vehicle starts across the center line.
 - b. Flash headlight beams or sound the horn --
 1. To signal an oncoming vehicle that he has crossed the center line.
 2. When the occupants of a parked car are about to exit on the roadway side.
 - c. Sound the horn --
 1. When passing a stopped vehicle in the roadway.
 2. When approaching the crest of a hill on a narrow road, in order to alert oncoming vehicles.
5. Sound the horn.
 - a. To alert animals (domestic and wildlife) in the roadway of the school bus's approach.
 - b. When in danger of striking a pedestrian or cyclist.

STEERING AND TURNING:

To be classified as an expert driver, you must be able to assume the correct steering position and make all the turning maneuvers correctly and smoothly. Learn the correct procedures necessary to prepare for the turn, make the turn, and re-enter the traffic pattern. When you're confronted with an unusual turn or turnaround, turn with extreme caution. Today's speed limits and the super-highway systems upon which the school buses may travel, forces you to use added skills and judgment in making turns properly and safely.

1. Steering positions
 - a. Grip the steering wheel with both hands.
 - b. Hands shall be positioned on opposite sides of the steering wheel.
 - c. Hands on outside of steering wheel and thumbs on top or outside of wheel.
2. Use your eyes. Be continually aware of the entire area around your bus.
 - a. Eyes should be constantly on the move to obtain the "big picture".
 - b. Look ahead; use left side, right side and mirrors.

- c. Scan mirrors every 3 to 5 seconds.
3. The push-pull steering method is recommended for minor steering corrections.
 4. Hand over hand method may catch thumb in clothing, safety chain on wrist watch, bracelets, etc., which are hazards to steering.
 5. Preparing for turns. Good signaling is very important to the safe operation of the school bus.
 - a. Check traffic to the front and rear of the bus.
 - b. Give proper signal to move vehicle into proper lane.
 - c. Switch on turn signals 100 or more feet ahead of turn.
 1. Signal early, signal continuously and cancel signal.
 6. Making right turn.
 - a. Give proper right turn signal.
 - b. Reduce speed and downshift to proper gear needed to execute turn.
 - c. Position bus in right lane.
 - d. Check for clear right of way.
 1. Traffic signals, sign, pedestrians or vehicles.
 2. Use both outside mirrors.
 - e. Execute the turn.
 1. Make turn smoothly without strain on the engine.
 2. Brake to a safe speed and down shift before entering the turn. Never shift gears during a turn.
 3. Check right mirror while executing turn.
 4. Enter the right most lane available and check turn signal for cancellation.
 5. Steer wheel back into position -- do not let steering wheel spin wheels back into position.
 6. Avoid "question" mark or "button" hook right turn.
 7. Making left turn.
 - a. Give proper left turn signal.
 - b. Reduce speed and downshift gear.
 - c. Position bus to the left edge of the lane.
 - d. Check for clear right of way.
 1. Traffic signals, signs, pedestrians or vehicles.
 2. Use both outside mirrors.
 3. If necessary to stop, keep front wheels straight and brake pedal depressed.

- a. Prevents drifting and activates stop lights.
- b. Prevents being shoved into line of approaching traffic if struck from the rear.

e. Execute the turn.

1. Drive into the intersection, make turn smoothly and without strain on the engine.
2. Check left mirror while executing turn.
3. Never shift gears in a turn.
4. Enter the highway in the left-most lane available and check turn signal for cancellation.

e. After completing the left turn upon multiple lane highways pick up speed, activate right turn signal and move into right hand lane as soon as reasonably possible.

8. Making a turnaround.

- a. Give brake signal well in advance of turnaround.
- b. Stop bus in proper position on roadway.

1. One bus length ahead of road to be backed into.
2. Check traffic front and rear.
3. Visibility should be 500 feet in either direction.
4. Have traffic move around bus if possible.
5. Back into roadway or driveway using mirrors.
6. Re-enter roadway, with caution, checking traffic.

BACKING IN A STRAIGHT LINE:

You must be able to back straight into a given space without allowing the bus to scrape or hit stationary objects.

1. Stop bus in correct position to back.
2. Using mirrors, check that way is clear.
3. Put transmission in reverse.
4. Using mirrors, back slowly and smoothly in a straight line.
5. Stop at desired point without hitting any object.
6. Be positive no pedestrians are in area into which you will be backing.
7. An expert driver must be able to skillfully back the bus when absolutely necessary. However, never back the bus when there is an acceptable alternative.

BEING OVERTAKEN AND PASSED:

1. When there is no possible hazard:
 - stay in right hand lane
 - maintain speed
2. When another vehicle is also approaching from the opposite direction creating a hazard for the vehicle trying to pass you:
 - Slow bus to allow vehicle to safely pass before oncoming vehicle reaches you, or
 - Move to parking lane or leave roadway if it seems that passing vehicle can't complete the pass before oncoming vehicle reaches you.
3. When on a narrow road, following traffic is built up, and a regular stop is not coming up soon:
 - Pull to side of road (if possible) using right turn signal and stop.
 - Allow vehicles to pass.
 - Activate left turn signal.
 - Resume position on road and continue run.

OVERTAKING AND PASSING:

Usually, you won't have to overtake and pass other vehicles, but when it's necessary, follow these steps:

1. Using mirrors, check that the traffic following the bus is clear for passing.
2. On a two lane road, check that there is no on-coming traffic and check traffic signs and markings to determine if passing is allowed.
3. Activate the left turn signal well in advance of passing.
4. When clear, pull smoothly into passing lane.
5. Deactivate left turn signal.
6. Move smoothly past the vehicle at a safe speed.
7. Activate right turn signal.
8. Move back into right lane when at least 1 1/2 bus lengths ahead of passed vehicle.
9. Deactivate right turn signal.
10. Maintain safe speed.

EXTRA CAUTION: Signal your intention to pass -- to the lead

vehicle -- by flicking headlights at night or by sounding the horn:

1. When the lead vehicle's vision to the rear is obscured by a trailer, open trunk lid, ice or snow on the rear window or objects in the rear window.
2. When the lead vehicle is about to pull out and pass.
3. When the lead vehicle moves laterally toward the bus.
4. When the driver of the lead vehicle appears inattentive.

DO NOT PASS if the lead vehicle is:

1. Signaling or otherwise indicating a left turn.
2. Changing lanes preparatory to passing.
3. Weaving or wandering - in this case, you may sound the horn or flash the headlights to alert the driver of the lead vehicle, and if the weaving does not cease, wait until you can pass with at least one-half lane separation.
4. Decelerating suddenly.
5. Passing children, cyclists or animals.
6. Being passed by another vehicle - in this case, wait until the lead vehicle has been passed, your view of the road ahead is clear and an acceptable gap is present.

STOPPING AND PARKING A BUS:

Stopping a school bus smoothly and within the limits of safety is another sign of expert driving. As a good operator, you have the vehicle under control at all times and know that braking distances increase greatly as the speed and weight

of the bus increases. With an ideal reaction time of 3/4 of a second, you must realize that at 20 mph the average stopping distance is 62 feet, and at 40 mph the stopping distance is 209 feet or more than three times as great.

The skillful operator also knows that by using correct stopping procedures, the maintenance costs on the braking system will be less.

1. Stopping when in a low gear or 10 mph and less.
 - a. Release accelerator and depress clutch pedal.
 - b. Apply brakes gradually by increasing pressure.
 - c. Reduce brake pressure slightly, but not completely just before coming to a stop to prevent jerking.
 - d. Shift gear lever into neutral position.
 - e. Release clutch and remove foot from pedal.

2. Stopping when in cruising gear.
 - a. Release accelerator and depress brake pedal.
 - b. When proper mph is obtained for any gear, downshift to next lower gear.
 1. Will reduce heat build up.
 2. Reduce excessive brake wear.
 - c. Downshift can be very effective and smooth.
 1. Third gear of 5-speed transmission.
 2. Second gear of 4-speed transmission.
3. Parking the bus.
 - a. Shift lever into low gear to provide maximum braking power by the engine.
 - b. Turn wheels into curb.
 - c. Turn off ignition and remove ignition key.
 - d. Release clutch and take foot off pedal.
 - e. Set parking brake (parking brake may freeze in wet cold weather).

RAILROAD CROSSINGS:

Many accidents could be eliminated through planned safety procedures for crossing railroad tracks. Learn these procedures and practice them until they become automatic actions.

Chapter 17C, Article 12, Section 3 West Virginia Code:

"Certain vehicles must stop at all railroad grade crossings.

(a) The driver of any motor vehicle carrying passengers for hire, or of any school bus carrying any school child, or of any vehicle carrying explosive substances or flammable liquids as a cargo or part of a cargo, or of any vehicle owned by an employer which, in carrying on such employer's business or in carrying employees to and from work, is carrying more than six employees of such employer, before crossing at grade any track or tracks of a railroad, shall stop such vehicle within fifty feet but not less than fifteen feet from the nearest rail of such railroad and while so stopped shall listen and look in both directions along such track for any approaching train, and for signals indicating the approach of a train, except as hereinafter provided, and shall not proceed until he can do so safely. After stopping as required herein and upon proceeding when it is safe to do so the driver of any said vehicle shall cross only in such gear of the vehicle that there will be no necessity for changing gears while traversing such crossing and the driver shall not shift gears while crossing the track or tracks.

Crossing railroad tracks represents one of the greatest hazards insofar as mass casualties and fatalities are concerned. STOP, LOOK, and LISTEN. All school buses loaded or empty should stop for railroad crossings as a matter of safety if not a matter of law.

Railroad-highway Crossings

Types of Crossings

Passive Crossings. This type of crossing does not have any type of traffic control device. You must stop at these crossings and follow proper procedures. However, the decision to proceed rests entirely in your hands. Passive crossings require you to recognize the crossing, search for any train using the tracks and decide if there is sufficient clear space to cross safely. Passive crossings have yellow circular advance warning signs, pavement markings and cross-bucks to assist you in recognizing a crossing.

Active Crossings. This type of crossing has a traffic control device installed at the crossing to regulate traffic at the crossing. These active devices include flashing red lights, with or without bells and flashing red lights with bells and gates.

Warning Signs and Devices

Advance Warning Signs. The round, black-on yellow warning sign is placed ahead of a public railroad-highway crossing. The advance warning sign tells you to stop, look and listen for the train. See Figure 10.5.



Figure 10.5

Pavement Markings. Pavement markings mean the same as the advance warning sign. They consist of an “X” with the letters “RR” and a no passing marking on two-lane roads.

There is also a no passing zone sign on two-lane roads. There may be a white stop line painted on the pavement before the railroad tracks. The front of the school bus must remain behind this line while stopped at the crossing. See Figure 10.6.

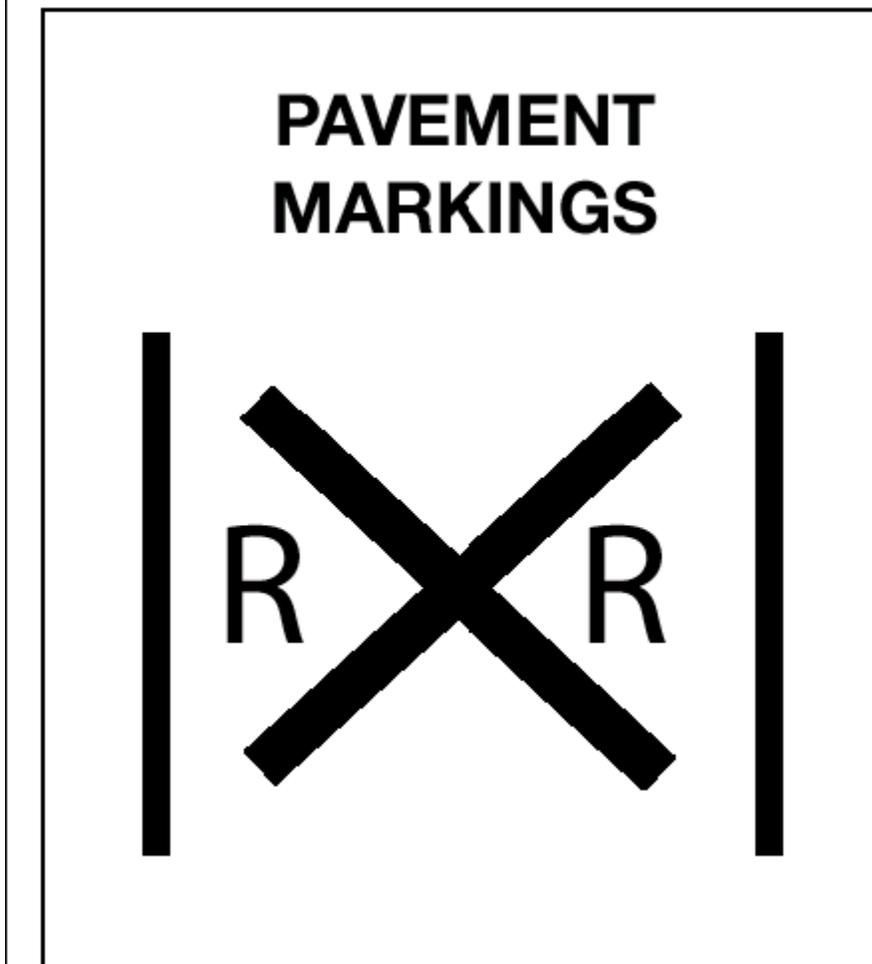


Figure 10.6

Crossbuck Signs. This sign marks the crossing. It requires you to yield the right-of-way to the train. If there is no white line painted on the pavement, you must stop the bus before the crossbuck sign.

When the road crosses over more than one set of tracks, a sign below the crossbuck indicates the number of tracks. See Figure 10.7

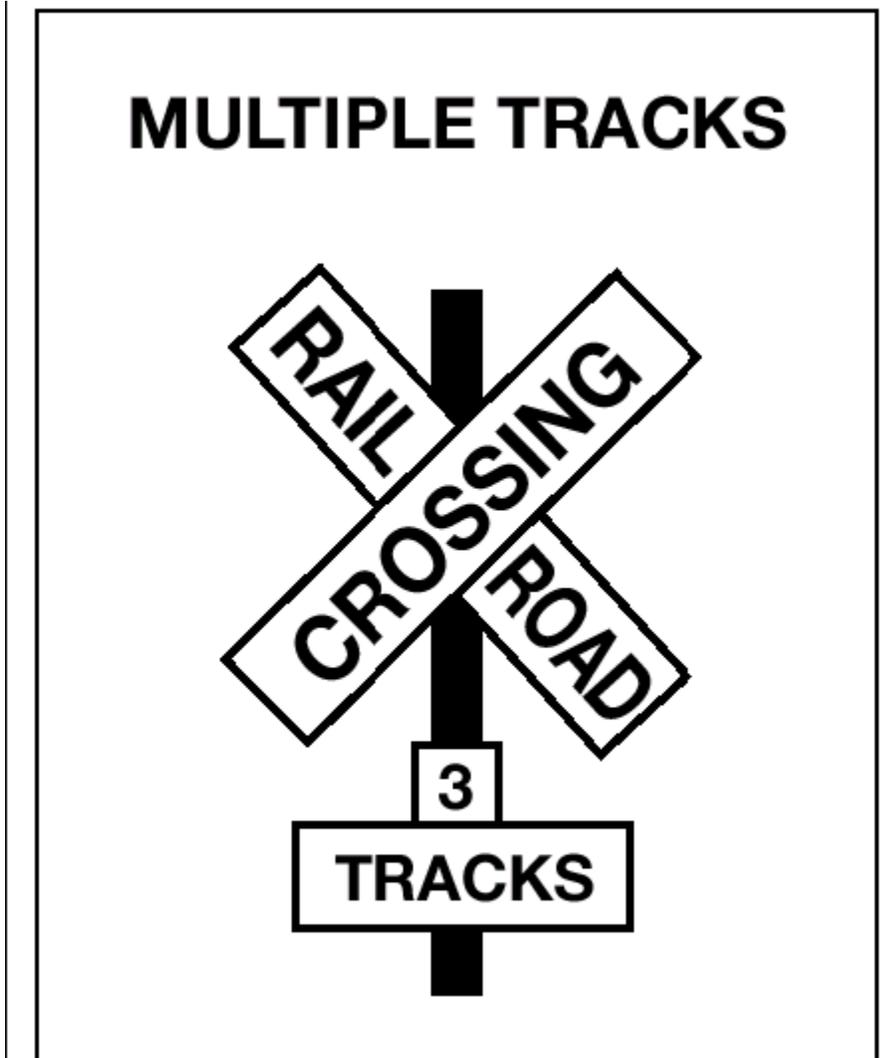


Figure 10.7

Flashing Red Light Signals. At many highway rail grade crossings, the crossbuck sign has flashing red lights and bells. You are required to stop! train is approaching. You are

A

required to yield the right-of-way to the train. If there is more than one track, make sure all tracks are clear before crossing. If the gate stays down after the train passes, do not drive around the gate. Instead, call your dispatcher. See Figure See Figure 10.8.

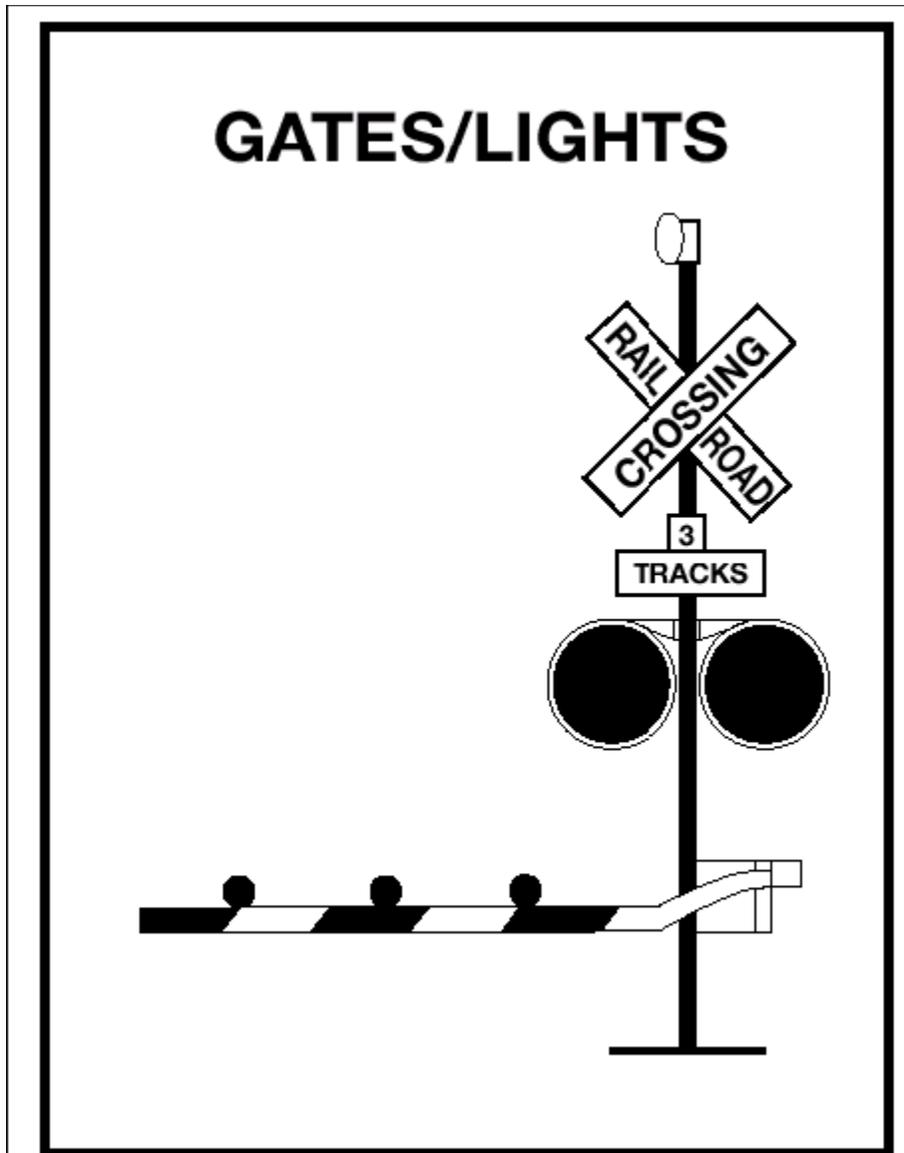


Figure 10.8

Gates. Many railroad-highway crossings have gates with flashing red lights and bells. Remember that buses are required to stop at all Rail Road crossing.

Remain stopped until the gates go up and the lights have stopped flashing. Proceed when it is safe. If the gate stays down after the train passes, do not drive around the gate. Instead, call your dispatcher. See Figure 10.8.

Recommended Procedures

Each state has laws and regulations governing how school buses must operate at railroad-highway crossings.

It is important for you to understand and obey these state laws and regulations.

In general, school buses must stop at all crossings, and ensure it is safe before proceeding across the tracks. The specific procedures required in each state vary.

A school bus is one of the safest vehicles on the highway.

However, a school bus does not have the slightest edge when involved in a crash with a train.

Because of a train's size and weight it cannot stop quickly. A freight train with 150 cars traveling at 50 MPH would continue moving down the track for 1.5 miles before coming to a complete stop, even with full emergency braking. An

emergency stop requires approximately 17 seconds for air brakes on all train cars to activate, and a train does not have an emergency escape route. An emergency escape route does not exist for a train.

A school bus, under ideal conditions, should be able to come to a complete stop in approximately 12 seconds when following the proper procedures.

Always assume that a train is coming, even when there is no warning given. Familiarity with rail road crossing on a route is an important aspect of safe transportation

Avoid becoming over confident. Remember most trains run a variable schedule and travel at different speeds.

You can prevent school bus/train crashes by following these recommended procedures.

Approaching the Crossing:

Slow down, including shifting to a lower gear in a manual transmission bus, and test your brakes.

Activate hazard lights approximately 200 feet before the crossing. Make sure your intentions are known.

Scan your surroundings and check for traffic behind you.

Stay to the right of the roadway if possible.

Choose an escape route in the event of a brake failure or problems behind you.

At the Crossing:

Stop no closer than **15 feet** and no farther than **50 feet** from the nearest rail, where you have the best view of the tracks.

Place the transmission in Park, or if there is no Park shift point, in Neutral and press down on the service brake or set the parking brakes.

Turn off all radios and noisy equipment, and silence the passengers. Open the service door and driver's window. Look and listen for an approaching train.

Before crossing the tracks close your entrance door

Crossing the Track:

Check the crossing signals again before proceeding.

□ **At a multiple-track crossing, stop only before the first set of tracks. When you are sure no train is approaching on any track, proceed across all of the tracks until you have completely cleared them.**

Cross the tracks in a low gear. Do not change gears while crossing.

If the gate comes down after you have started across, drive through it even if it means you will break the gate.

After crossing the tracks and you are sure that the bus has cleared the tracks close the driver's window and turn the emergency flashers off and continue your route.

Special Situations

If a train is in sight, or if any warning signals are activated, a loaded school bus cannot attempt to cross the tracks.

Bus Stalls or Trapped on Tracks. If your bus stalls or is trapped on the tracks, **get everyone out and off the tracks immediately.** Move everyone a safe distance far from the bus at an angle away from the tracks. If a train is approaching move at angle away from the tracks and in the direction of the approaching train.

If the crossing is occupied by a train, the bus driver must **set the parking brake** and place the gear shift in the **neutral position** until the crossing is clear.

Police Officer at the Crossing. If a police officer is at the crossing, obey directions. If there is no police officer, and you believe the signal is malfunctioning, call your dispatcher to report the situation and ask for instructions on how to proceed.

Obstructed View of Tracks. Plan your route so it provides maximum sight distance at highway-rail grade crossings.

Do not attempt to cross the tracks unless you can see far enough down the track to know for certain that no trains are approaching.

Passive crossings are those that do not have any type of traffic control device. Be especially careful at “passive” crossings.

Even if there are active railroad signals that indicate the tracks are clear, you must stop look and listen to be sure it is safe to proceed.

Containment or Storage Areas.

If it won't fit, don't commit!

Know the length of your bus and the size of the containment area at highway-rail crossings on the school bus route, as well as any crossing you encounter in the course of a school activity trip.

When approaching a crossing beware of anything that would prevent the bus from completely clearing the track (S) such as a signal or stop sign on the opposite side, pay attention to the amount of room there.

Be Certain the bus has enough containment or storage area to completely clear the railroad tracks on the other side if there is a need to stop.

A school bus is at most 40 feet long, and requires 15 feet of clearance in front and in back, for a total of 70 feet for the bus to safely clear the track.

As a general rule add a minimum of **15 feet** to the length of the school bus to determine an acceptable amount of containment or storage area.

STARTING ON A HILL:

A. With parking brake set:

1. With right foot on brake, left foot depressing the clutch and transmission gear shift lever in first gear, release the clutch slowly until the engine begins to labor slightly.
2. Hold clutch at the friction point.
3. With right foot, release brake pedal and drop right foot onto the accelerator giving enough fuel to hold the weight of the bus without drifting backward.
 - a. Release clutch smoothly until completely out, giving enough fuel to pull the bus smoothly up the hill.

STOPPING ON A HILL (UPGRADE):

1. Check approaching and following traffic.
2. Apply the brake lightly for a smooth stop.
3. Allow an extra safety margin between the bus and the vehicle ahead on an upgrade. The vehicle ahead could roll back when attempting to start.

STOPPING ON A HILL (DOWNGRADE):

Stop as you would on an upgrade, except also:

1. Check following traffic.
2. Tap brakes to get attention of following traffic.
3. Downshift as necessary while applying brake for a smooth stop.

- After Step 1: tap brakes about twice to get attention of following driver.
- After Step 2: downshift to reduce speed as you see the need to stop.

SKILLS YOU WILL NEED:

You must develop the following perceptual skills:

1. The ability to determine roadway limitations through peripheral vision, in order to be able to position the bus properly while attending to traffic.
2. The ability to maintain an appropriate separation from the vehicle ahead when following.
3. The ability to judge closing rate with the vehicles approaching from ahead, behind and the side.

You must develop (or improve) your manipulative skills in controlling the longitudinal and lateral motion of the bus while attending to general traffic and roadway conditions.

LONGITUDINAL SEPARATION PROCEDURES:

Maintain adequate LONGITUDINAL separation from other traffic.

1. In maintaining an appropriate following distance behind the lead vehicle.
 - a. Allow enough distance for stopping the bus before the lead vehicle stops, if necessary.
 - b. Decelerate early and gradually to assist in achieving a smooth stop and avoid jamming on the brakes.
2. Increase longitudinal separation:
 - a. When following:
 - oversized vehicles that obscure your visibility
 - gasoline or inflammable/explosive carriers
 - vehicles that stop frequently - school buses, delivery vans, mail carriers, etc.
 - two wheeled vehicles - motorcycles, bicycles, etc.
 - vehicles carrying protruding loads
 - vehicles being driven erratically
 - emergency vehicles
 - b. On wet or icy roads.
 - c. Under conditions of reduced visibility - fog, snow, smoke or haze.
 - d. Under conditions of darkness.
 - e. Where traffic intersects, merges, or diverges.
 - f. When the road ahead is not visible.

3. Accelerate to increase separation distance with the vehicle following, if the driver of the vehicle exhibits erratic behavior.
4. Decelerate and be prepared to stop in order to maintain appropriate longitudinal separation:
 - a. when the lead vehicle reduces speed.
 - b. when a vehicle is stopped on the roadway ahead. Stop well behind the overtaken vehicle so that you can pass the vehicle without having to back up.
 - c. when approaching a parked vehicle with the hood up.
 - d. when the driver(s) of the vehicle(s) behind, including one that may be tailgating, indicates he wishes to pass.
 - e. When following slow-moving vehicles, deceleration should be initiated in sufficient time --
 - to avoid emergency stops (panic stops).
 - to assure at least a four second separation from the vehicle ahead.
 - f. When following or approaching special vehicles, such as another school bus, trolley or transit bus, engaged in picking up and/or discharging passengers.
 - g. When an emergency vehicle, such as an ambulance, fire truck, or police vehicle is approaching from any direction.
 - h. When flashing red lights or flashing yellow lights are noted on the vehicle ahead.
 - i. When following a convoy, such as a funeral procession.
 - j. When following a driver exhibiting erratic behavior.
 - k. When approaching hidden driveways that are heavily used, example: plant exits.
5. Be prepared to stop or to change lanes when the vehicle ahead is about to enter or exit a parking space.

If you decide to change lanes, allow a full car width between the bus and the vehicle that is parallel parking. Be sure that your continued movement will not be a hazard or contribute to an accident.

LATERAL SEPARATION PROCEDURES:

Maintain adequate LATERAL separation distance from other traffic in relation to such procedures as passing, being passed, meeting oncoming vehicles, driving on freeways, entering traffic, changing lanes, and negotiating intersections.

1. In maintaining the appropriate lateral separation distance when **PASSING**, you should:
 - a. Select the appropriate lane for the passing maneuver.
 1. In general, pass on the left.
 2. On a two or three lane roadway - you may pass on the right of the vehicle that is stopped for a left turn. Use only the middle lane for passing on the left on a three lane roadway.

3. On a four-lane roadway, you may pass moving traffic if necessary and legally permissible.
 4. On six or more lanes, you may pass on the right - when no lane change is necessary or when it is safe and expeditious to traffic.
2. In maintaining the appropriate lateral separation distance when BEING PASSED, you should:
- a. If the pass appears to be safe --
 1. Maintain position in the center of the lane or slightly to the right, if possible, to provide additional passing clearance.
 2. Maintain or reduce speed, avoid acceleration.
 - b. Prepare to decelerate to provide more space if the passing vehicle cuts in front of your after passing.
 - c. If the passing vehicle attempts to abort the pass, accelerate quickly, if there is adequate clearance ahead, to allow the passing driver to pull safely back into the driving lane.
3. In maintaining the appropriate lateral separation distance in relation to ONCOMING VEHICLES, you should:
- a. Keep to the right of the center line.
 - b. Maintain maximum lane separation by -
 1. Using the right lanes whenever possible.
 2. Positioning the bus in the right section of the lane whenever a move to the right lane is impossible or impractical.
 - c. Maintain precise steering control over the bus when oncoming vehicles pass to be able to react quickly to wind gusts, road irregularities or to an oncoming vehicle crossing the center line.
 - d. On a narrow downgrade, yield the right-of-way to the oncoming vehicles, pulling off the road if necessary to allow the vehicle to continue. However, be cautious not to pull onto soft shoulders.
4. To maintain the appropriate lateral separation distance when CHANGING LANES, you should:
- a. Adjust the speed of the bus, accelerating or maintaining speed, whichever is necessary.

- b. Steer into the new lane, after waiting a few seconds following the signal to turn.
 - c. Position the bus in the center of the new lane.
5. To maintain adequate lateral separation for PARKED VEHICLES, position the bus to avoid striking the vehicle door if it opens unexpectedly.
6. In maintaining adequate lateral separation distance with other traffic at INTERSECTIONS, proceed as follows:
- a. When turning left, in general:
 - 1. Wait until there is a sufficient gap in traffic from both left and right to permit the turn to be made without danger.
 - 2. Avoid pulling halfway into the intersection when it will interfere with traffic.
 - b. If a driver in the oncoming lane suddenly makes a left turn across the path of the bus, stop or slow down to let him pass, depending on both of your speeds.
 - c. When turning left with no oncoming traffic, enter the appropriate lane for normal driving.
 - d. When turning left with oncoming traffic approaching:
 - 1. Proceed to the center of the intersection.
 - 2. Remain to the right of the center line.
 - 3. Keep wheels pointed straight, not turned left.
 - 4. Proceed with the turn when it is safe to do so.
 - e. When turning left and the oncoming vehicle also signals for a LEFT turn:
 - 1. Proceed partially into the intersection and stop, leaving adequate heading to complete the turn.
 - 2. Remain to the right of the center line.
 - 3. Complete the left turn when assured that the oncoming vehicle will turn and conditions are otherwise safe.
 - f. When turning left and the oncoming vehicle signals for a RIGHT turn:
 - 1. Proceed partially into the intersection and stop until the oncoming vehicle begins his turn.

2. Turn left into the nearest left lane of the cross street.
- g. Do not enter the intersection unless complete passage is assured.
7. In maintaining an adequate separation distance with PEDESTRIANS AND ANIMALS, proceed as follows:
 - a. Yield the right of way to pedestrians at all times.
 - b. When passing pedestrians, provide the maximum possible clearance (using the passing lane if possible) and do not pass the vehicle ahead when pedestrians reduce the lane clearance.
 - c. Decelerate when entering animal crossing zones or when noting animals on or alongside the roadway. Overtake animals at reduced speed and resume a normal rate after the pass has been accomplished.
 - d. Prepare to stop or swerve if the animal enters roadway. In this case, if swerving the bus to avoid hitting the animal would jeopardize the safety of the driver, passengers or other motorists or pedestrians, do not swerve the bus.
 - e. When in danger of striking a pedestrian or cyclist, decelerate and swerve the bus gradually when an insufficient stopping distance exists.

ENTERING THE FLOW OF TRAFFIC:

GENERAL -

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 mirror to determine that all passengers are seated.
5. Look to 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 suitable gap in traffic and when safe, accelerate smoothly into road, neutralizing the turn signal as correct lane position is established.

CROSSING INTERSECTIONS:

1. Observe the traffic ahead and from the left and right when approaching and traversing intersections.
 - a. Watch for vehicles which are close and fast approaching the intersection. Decelerate or stop to permit those vehicles to clear the intersection.
 - b. Watch for vehicles approaching from the left and signaling a right turn. Decelerate and prepare to enter the intersection only after the vehicle has begun the turn.
 - c. If your vision is obscured (ex: by buildings, trees, parked vehicles, etc.), stop at the intersection and edge forward slowly.
2. Observe other traffic when proceeding directly through an intersection.
 - a. Observe other traffic and yield the right-of-way if necessary.
 - b. Observe traffic preparing to turn left and prepare to stop should a left turn be indicated.

ADJUSTING THE SPEED OF THE BUS:

You must operate the bus within posted speed limits and with consideration of prevailing environmental conditions. The basic rule-of-thumb is to drive at no greater speed than will permit stopping within the assured clear distance ahead.

LANE USE AND POSITION ON ROADWAY:

1. Stay in one lane for normal driving.
2. Use parking lane only for stopping and parking.
3. Where there is more than one lane for traffic going in one direction, travel in the furthest right lane (not including parking lane) unless passing or turning left.
4. Drive at a safe distance from other vehicles -- at least 4 seconds from a followed vehicle; at least 500 feet from a followed bus in convoy; at least 4 seconds from a preceding bus leaving the school grounds. At least 1 second for every 10 feet of vehicle length plus 1 second for speeds over 40 miles per hour.

CHANGING LANES:

Look for rear-approaching traffic in the new lane and when deciding to change lanes.

1. On multi-lane roads, look for vehicles about to enter the new lane from the far adjacent lane.
2. Check the mirror(s) to observe vehicles passing in the new lane, following vehicles closing fast from the rear in the new lane, and following vehicles about to enter the new lane.

ESTIMATING REQUIRED SPACE:

1. You must be able to attain and maintain an appropriate, stable margin or space between the bus and any moving or stationary object. To do so, you will have to perceive changes in the separation distance or apparent object size, depending upon the distance involved, and adjust the bus speed and/or position.
2. Skill must be developed in using peripheral and central vision to accomplish the finer steering control required to keep the bus within its lane while maintaining a safe distance from parked vehicles, etc.
3. You must be able to judge the rate at which your bus is closing with the vehicle ahead in order to adjust your speed or initiate a pass at the proper time.
 - a. The primary perceptual clue in the daytime is the change in apparent size of the lead vehicle.
 - b. At night the primary clue is the distance between the taillights.
 - c. Size or brightness of the taillights are not useful clues.
4. You must be able to judge:
 - a. If the closing rate and distance of following vehicles in other lanes and the traffic flow will give you a safe opportunity to change lanes.
 - b. The speed and distance of leading vehicles. Speed changes must be estimated quickly if changing into the lane is to be done safely.
 - c. Before changing lanes, you must be able to:
 1. Keep traffic to your front, side and rear under constant surveillance and simultaneously steer the bus within its lane.
 2. Accomplish the change in a smooth continuous movement with very slight steering corrections and accelerator reversals.

5. You must:
- a. Develop the visual surveillance habit of scanning 360 degrees around the bus.
 - b. Develop coordination between control movements and eye movements.
 - c. Be able to use peripheral vision for lateral control.
 - d. Develop the ability to adjust your position to avoid hazards you detect.
6. You must know that appropriate and stable following distances maintain safe traffic flow, and certain conditions call for a greater flow than normal following distance.
- a. Following another vehicle requires a margin of space of sufficient size for you to adjust to unexpected moves by the vehicle ahead or to fluctuations in the traffic ahead without being forced into sudden swerves or stops.
 - b. One rule that can be used to maintain safe following distances is to keep a distance between vehicles that is traveled in at least four seconds.
 - c. A traditional rule-of-thumb has been one bus length for every 10 miles per hour of speed.
 - d. Some circumstances call for greater following distance:
 1. When increasing speed: As speed increases, so does the distance required to come to a stop. To allow for the greater stopping distance, a greater headway between the bus and vehicle ahead is needed.
 2. When driving on wet or icy roads, which also increases the stopping distance.
 3. When driving at night or during weather conditions that adversely affect your ability to see roadway and traffic conditions ahead.

Vehicles may decelerate sharply during poor visibility. A greater following distance is required to allow a safety cushion for responding to sudden actions by the vehicle(s) ahead.
 4. When fatigued: This causes a person to respond to situations more slowly than when they are fresh. The longer you take to react, the greater the distance required to stop the vehicle. To accommodate this poorer performance, allow more distance between your vehicle and the vehicle ahead.

5. When following emergency vehicles: Most states require a separation of at least 500 feet from emergency vehicles.
 6. When following dual-wheeled vehicles, which may cause debris to be thrown from between the wheels. Also, the vehicle's larger size tends to block the view ahead if followed closely.
 6. Following two-wheeled vehicles: Because of their lighter weight, two-wheeled vehicles can stop within a much shorter distance than the bus.
-
- e. Unstable spacing between vehicles adversely affects the flow of following traffic.
7. Drivers seem to underestimate distance in feet by 30 to 40 percent on the average, at highway speeds. In one study, drivers on the average, were 20 percent off in attempting to maintain an 80 foot following distance at 45 miles per hour. Following too closely is a significant factor for accidents.

For example:

- a. Driver failure to maintain an appropriate interval while following a lead vehicle in traffic was a significant factor in rear-end collisions in a moderately high percentage of accident reports reviewed.
 - b. Maintaining "proper" following distance prior to changing lanes permits deceleration and reentry to the right lane if necessary. Independent studies of accidents and near accidents among professional drivers attributed these situations largely to following too closely before changing lanes to pass.
8. The length of a sufficient gap in traffic will be defined differently by different drivers. Generally, a seven-to-eight second gap or lag in the flow of traffic is required before you enter an intersection. During peak traffic hours, this gap may be reduced by a second or two.
 9. Drivers tend to underestimate gaps in traffic from the left and overestimate gaps in traffic from the right, due to differences in angle of view. During peak hours, drivers in a hurry tend not to allow sufficient gaps in traffic from the right.

STRUCTURES WITH RESTRICTED SPACE:

When approaching a bridge, tunnel or underpass, you should:

1. Decelerate for better control.
2. Look for signs indicating load, width, and height limits; or estimate whether required clearance is available.
3. Decide whether to proceed.
4. Yield to oncoming vehicles if structure is narrower than roadway.
5. Avoid stopping in or on the structure except in response to traffic flow or an emergency.
6. Maintain appropriate speed, taking into account the surface grade, weather conditions and traffic.
7. Stay as far right as possible until you clear the structure.

APPROXIMATE WEIGHTS OF SCHOOL BUSES*

PASSENGER CAPACITY	CURB WEIGHT	LOADED WEIGHT
35/36	11,480 pounds	5,830 pounds
47/48	12,875 pounds	18,665 pounds
53/54	13,570 pounds	20,080 pounds
59/60	14,905 pounds	22,135 pounds
65/66	15,755 pounds	23,705 pounds
71/72 - Type C	16,475 pounds	25,145 pounds
71/72 - Type D	19,794 pounds	28,584 pounds
77/78 - Type C	17,483 pounds	26,843 pounds
77/78 - Type C	20,569 pounds	30,077 pounds
83/84	21,379 pounds	31,609 pounds
89/90	21,379 pounds	32,329 pounds

*Information for West Virginia bridge and road restrictions.

DRIVING ON RURAL HIGHWAYS:

Much of the school bus travel takes place on suburban or rural roads. Such highways may consist of standard-width, hard-surfaced roads, narrow hard-surfaced roads, gravel and crushed rock surfaces and just plain dirt.

Rural roads are generally quite narrow. Probably the greatest hazard on such roads is the questionable condition of the outer edges of the roadway. During wet weather they frequently become soft and give way when the school bus gets too close to the edge.

Under such conditions, the bus driver when meeting oncoming vehicles, should avoid pulling too far to the right. In many cases, it is wise to stop the bus until the other car has maneuvered around it.

Hills are another source of danger. Many motorists using these roads tend to drive toward the center of the road. Bus drivers approaching a hill, especially one with a curve, should pull over to the right as far as reasonably possible so as to minimize the possibility of a head on collision with a motorist coming over the hill from the opposite direction.

Many of the secondary roads, though hard surfaced, are narrow and crooked. On such roads, the operator may permit his right wheels to run off the paved surface. When this happens, you should be cautious so as not to instinctively pull the bus back onto pavement immediately. When possible keep going straight and allow the bus to slow down. The brakes should be applied very gently in slowing the vehicle -- quick and hard application of brakes should be avoided. If conditions permit it, engine compression alone should be used to slow the bus to the desired speed.

If there is sufficient space on the shoulder of the road, first pull further right two or three feet from the pavement after the bus has slowed down. Then, with the bus moving very slowly, turn the wheels to the left and cut back onto the pavement.

Blind and uncontrolled intersections constitute an additional hazard on rural roads. All such intersections must be approached at a reduced speed and with utmost care.

DRIVING IN URBAN TRAFFIC:

Regardless of the fact that the school bus will be operated much of the time on the open highway, it is important that you acquaint yourself with the sound practices that are necessary for town and city driving. Become familiar with local traffic regulations and follow the direction of officers directing traffic.

One of the most common faults of school bus drivers, while driving in town, is that they do not stay in the proper lane of traffic. Many drivers feel that since they are

driving a vehicle that is wider than an ordinary car, it is safer if they straddle the lane. This is an erroneous assumption and a dangerous side; the bus is in a much safer position if it is in one lane rather than two. Keep the bus in the right lane, unless you are preparing to make a left turn. In this position, the bus will not interfere with other traffic to the extent that it does when occupying a portion of both lanes. If lanes are not marked off, it is up to you to imagine that the lanes exist and to operate the bus in the proper one. If you make it a habit to drive your bus in the wrong lane, or continually change from one lane to another, you demonstrate an absence of respect for other drivers and the safety of your passengers.

Another factor that is important to the safe operation of a school bus in city traffic is regulating the speed of the bus in accordance with other traffic on the street. If the bus is operated at a speed that is in excess of, or greatly under, that of other vehicles, it becomes a hazard to both the occupants of the bus and other users of the street. You must maintain enough distance between the bus and other vehicles to allow room to stop without colliding with other vehicles under emergency conditions. In city traffic, the speed of the bus should be in accordance with the speed of other vehicles and posted speed limits, so that the bus will not create a hazard and "tie-up" traffic.

Streets in cities, and roads leading into cities, frequently consist of four or more lanes and divided highways. If such roads are a part of the school bus route where children are picked up, consideration of the safety of the children should be paramount. The bus should be required to double back rather than to have a child cross a highway unassisted. This will permit children living on such roads to load and unload on the right side of the highway, consequently, lessening the danger of accidents that have occurred at various times when students have had to cross the road to board a bus. Hazards to passengers increase in proportion to the number of lanes of traffic they must cross in going to and from the bus stop.

NIGHT DRIVING (TWILIGHT TO DAWN):

Some Things You Should Know:

Driving at twilight is more dangerous than driving during daylight. Drivers overestimate their ability to see at twilight. Shadows increase the difficulty in judging speed and distance of other vehicles. Many drivers are also fatigued at dusk in route home from work. One-fifth of motorists in fatal accidents were fatal injured between the hours of 5 pm and 8 pm.

Distance and speed estimation for oncoming vehicles at night is almost equal to that of daytime driving in the case of standard size vehicles. However, since distance perception at night is based upon angular separation of headlights, the distance of a small foreign or compact car may be overestimated.

At 100 feet away, it is very difficult to see objects beside or beyond an approaching vehicle. Vision does not return to normal for some time after passing the vehicle. The driver actually travels essentially blind for some distance after having

passed a pair of brilliant headlights.

Your visibility is affected considerably by oncoming headlights, even distances in excess of 3,000 feet.

Your high beams may blind the oncoming vehicle driver, compounding the problem of driving, especially on a wet and possibly slippery surface.

IMPROVING YOUR ABILITY TO SEE AND DRIVE DURING DARKNESS:

Maintain the Proper Vigilance Needed to Improve Your Ability to See During Darkness

1. Use the taillights of the vehicle ahead as an indication of the closing rate when driving in rural areas.
2. Watch for dark or dim objects on the roadway when driving at night. If dark objects appear, see-saw your eyes up and down, or cock your head to one side and peer out the corner of your eyes.
3. Watch beyond the headlights on and near the roadway for slow moving or unlit vehicles, curves, road obstructions or defects, pedestrians and animals.
4. Watch for pedestrians and unlit vehicles and objects on the roadway and at the curbside when driving in urban areas at night.
5. When approaching a pedestrian or animal at night:
 - a. Dim the lights to low beam.
 - b. Decelerate.
 - c. Watch the pedestrian or animal for an indication of change in direction of movement.
 - d. Prepare to take evasive action should the pedestrian or animal enter the roadway.
6. When approaching an animal refuge or crossing area, decelerate and watch for animals on or alongside the roadway.

Always drive more slowly than under similar circumstances during daylight. Maintain a speed that permits stopping within the distance illuminated by the headlights. **ALLOW A GREATER MARGIN OF SAFETY IN PERFORMANCE OF MANEUVERS THAN DURING DAYLIGHT HOURS:**

If the driver of an oncoming vehicle refuses to dim his headlights:

1. Decelerate.
2. Maintain your headlights on low beam.
3. Avoid looking directly at the vehicle's bright lights.

4. Focus the eyes to the right side of the roadway, beyond the oncoming vehicle.
5. Close one eye as the vehicle draws near, to save vision in that eye until the vehicle passes.
6. Maintain a slower speed for a period of time after the vehicle has passed.

NIGHT DRIVING PROCEDURES:

1. Before starting, check that all lights in the interior as well as on the exterior of the bus, are in working order and that they are clean.
2. Keep headlights on low beam in cities and towns, in fog or haze, and approaching other motorists on a highway. Also put them on low beam as another vehicle passes the bus and until the vehicle is at least 200 feet in front of the bus (West Virginia Law), or until your headlights stop illuminating the back end of the vehicle that has passed. (Safety requires additional distance in most cases.)
3. Keep interior overhead lights off while driving.
4. Keep level of lights on instruments bright enough to read the instrument, but not so bright as to interfere with vision outside the bus.
5. Schedule start and return times of the trip with consideration of slower night driving time.
6. If the night driving time will require more than a one and one-half hour (90 minutes) stretch of driving, schedule rest stops for at least 10 minutes for each 90 minutes of driving.
7. If it is necessary to stop the bus on the shoulder of an open roadway, activate the parking lights and four way emergency flashers. Choose a spot which can be seen for at least 500 feet by oncoming and following traffic.

DRIVING UNDER ADVERSE WEATHER CONDITIONS:

During the course of a school year, as a bus operator you will face a variety of hazardous conditions that will demand alert and skillful action. Conditions you will frequently face are: ice, snow, rain and fog. A basic rule to follow is always to shift to a lower gear when it is apparent that you will encounter any of these conditions.

A vehicle cannot be operated safely and efficiently at a high rate of speed when any of the above conditions prevail. To avoid getting stuck or spinning the wheels, try to keep the bus moving slowly and steadily forward in gear. If the wheels start to spin, let up slightly on the accelerator to allow the wheels to take hold. If the bus stops, do not continue to spin the wheels in hope of pulling out. In mud, snow or soft sand, this will only serve to dig the wheels deeper. If the bus becomes stuck, first try to get it out by pointing the front wheels straight ahead, and try "rocking" the bus by alternately putting it into reverse and into low. This can be done in a manner that the wheels do not spin, and in many cases, it will pull the bus out of a tough spot. If this fails, some material to provide friction, such as crushed rock, tree branches, pieces of timber or burlap should be pushed down around the tread wheels to allow the bus to again get in motion.

CONDITION OF STREET AND HIGHWAYS:

You'll be driving over the same route twice a day all during the school year. You'll become thoroughly acquainted with the route, and after a short time, may begin to take the road for granted. But conditions change rapidly, potholes develop overnight, the grade washes away, shoulders become soft, railroad crossing approaches change during the night or day, loose gravel appears, slick spots develop through accumulations of snow and ice or oil deposits. Also, it is not uncommon to find a stalled vehicle in or adjacent to a traffic lane, that was not present on the last trip. Each day conditions are different and you must be on the alert to detect these changes before it is too late. It is no use to say that an intersection accident happened because the road was slick. Such accidents usually happen because the driver fails to adjust his or her driving to the road condition.

ADJUSTING YOUR DRIVING TO POOR ROAD CONDITIONS:

Rain, snow, sleet, fog or icy pavement have never caused an accident. These conditions merely add more hazards to driving and make the normal hazards worse. Accidents are caused by drivers who do not adjust their driving to meet these conditions. Accidents blamed on skidding or bad weather conditions are classed as preventable. Expert drivers can drive safely on extremely slippery surfaces by reducing speed, installing chains and using sanders when necessary.

1. Reduce speed of bus.
2. Drive well to the right hand edge of the road.
3. Watch side roads closely for entering traffic.
4. Watch for stalled or parked vehicles obstructing traffic lanes.
5. Watch for accidents that obstruct traffic lanes.
6. Beware of patches of wet leaves and smooth blacktop surfaces.
7. Never look directly at lights of oncoming vehicles.
8. In fog, use windshield wipers and defrosters continuously.
9. In fog, haze (or rain or snow when it's overcast), drive with headlights on low beam.

10. Avoid sudden stops. Signal stops by tapping brake pedal to make the stop lights blink.
11. Approach hilltops cautiously, be able to stop for any emergency and to take evasive action if vehicles coming from opposite direction lose control.
12. Avoid locating stops where approaching motorists might be taken by surprise.
13. Always use chains when conditions warrant.

PRE-TRIP TASKS:

- a. Check that chains are securely locked with spreaders on.
- b. Clear lights, mirrors and front and rear windows of precipitation.
- c. Check that entrance door works smoothly.
- d. "Warm up" vehicle for several minutes unless the vehicle is kept pre-warmed.
- e. Check that heater and window defroster are working.
- f. Start trip from bus storage area earlier than usual to compensate for slower driving time.

ON THE ROAD:

- a. If "ice" or a "wet" snow is on the ground, start up the bus in an appropriate gear for better traction.
- b. When pulling out into the roadway, allow for greatest stopping time and maintain greater distance from other vehicles.
- c. Drive more slowly than is posted for dry road conditions, especially on bridges and in tunnels.
- d. When approaching intersections and stopping, release and reapply the brakes as necessary so wheels do not lock on the ice and contribute to a skidding accident.
- e. To avoid a skid, do not disengage the clutch until the bus is almost at a standstill.
- f. Make turns smoothly, avoiding application of the brake.
- g. If a build-up of snow or ice occurs on front or rear windows, stop the bus and brush it off.

POST-TRIP TASKS:

- a. Sweep water and snow out of bus and off steps.
- b. Clear excess snow from windows.

RAIN:

1. Pre-trip Tasks

- a. Clear windows, lights, and mirrors of mud and other dirt.
- b. Check that windshield wipers are in working order.

2. On the Road

- a. Drive more slowly than the speed posted for dry road conditions.
- b. Make turns slowly, avoiding use of the brake as much as possible.
- c. Use windshield wipers at all times.
- d. If rain is heavy, drive with headlights on low beam.
- e. When fog occurs, drive with headlights on low beam.

3. Post-trip Tasks

- a. Sweep water off floor and steps of the bus.
- b. If mud has splashed on lights and sides of bus, clear it off.

REDUCED VISIBILITY DUE TO WEATHER:

When a driver thinks of adverse weather conditions, he/she usually thinks of how bad the roads will be. Don't forget, rain, snow (and, of course, for any smog) also reduces visibility. No matter how good your eyes are, you can't see as well when the sun isn't shining. How should you adjust your driving under these conditions?

EXPRESSWAY DRIVING:

Expressway driving is different from the stop-start routine you experience on city and residential roads. Expressway driving forces you to adjust your habits to high speed. Experts recommend the following driving techniques which will help you take advantage of fast, convenient expressways--with safety.

How to get on an expressway:

Slow down and look before turning into an expressway approach.

1. Survey the traffic on the main roadway when entering an on-ramp.
 - a. Look briefly back over your left shoulder if entering the main roadway from the right.
 - b. Look back over your right shoulder if you're entering the main roadway from the left.

2. If driving on a short entrance ramp, check briefly for the main roadway approaching from the rear in selecting a gap.

Specifically:

- a. After looking briefly over your right shoulder, look at the rearview mirror before entering the main roadway from the left.
 - b. After looking briefly over your left shoulder, look at the rearview mirrors before entering the main roadway from the right.
 - c. Move your head from side to side in order to view the roadway through the mirrors, if necessary.
 - d. If no gap is visible, observe the ramp ahead, periodically view the main roadway using the mirrors if possible, and stop before reaching the end of the on-ramp if it is necessary to await an acceptable gap.
 - e. Periodically check the main roadway by quick shoulder glances or the use of mirrors, when approaching the main roadway.
3. Check the traffic on the main roadway when driving on a long entrance ramp.
 - a. Check the mirrors and glance briefly over your left shoulder if approaching the main roadway from the right.
 - b. Check the rearview mirror and look briefly over your right shoulder if approaching the main roadway from the left.

Wait for an opening in traffic. Expressway drivers are traveling a lot faster than you will be at first. A car going sixty can run you down. Keep far right, preferably in an acceleration lane, while you are getting up to the average speed of traffic. Expressways have divided traffic streams. When you enter from a "southbound" approach you can't go north. If you make the mistake of entering expressway traffic going some direction other than you intended, you must proceed with the traffic until the next interchange. Only then can you leave the expressway and re-enter by the proper approach. NEVER attempt to cross the center strip. It's illegal and extremely hazardous.

How to drive the "Straightway":

Pick your lane -- and stay with it. Weaving and lane wandering are especially dangerous on a high speed expressway. In general, keep to the right. Where slow trucks and merging traffic make this lane hazardous, move over to the next lane.

Leave plenty of room between you and the car ahead. Maintain at least a four second interval.

Signal to alert others before you pass or change lanes. Use your turn signal lights to show you are about to leave your lane.

How to Drive at Expressway Speeds:

Drive smoothly at a steady speed. Give the driver behind a chance to follow or pass you safely. You're a highway hazard if you indulge in spurts of speeding and dawdling.

Drive within a 25 percent range of the speed of traffic. If most cars are doing 55, you shouldn't drop below 45. Keep right when you must go slower than average.

On long drives, change your speed level at frequent intervals. Keeping the same speed dulls your reactions. A five or ten mile variation will perk you up.

Watch for signs noting changes in speed limits. A 40-mile zone on a 55-mile highway signals a danger area. Drop your speed promptly and stay alert for the upcoming hazard.

How to Meet a Crisis on an Expressway:

If you must stop, signal for a right-hand turn as you decelerate. Drive completely off the right side of the road -- all wheels and fenders.

If your right wheels go off the pavement, do not brake. Stay in gear as you reduce speed to about 10 miles an hour. Look behind for a clear field. Turn left and you're back on the road again.

If a car is coming at you in the wrong lane, honk your horn and blink your lights. Then take evasive action to the right.

How to Get Off an Expressway

Look for advance signals for your proper turn-off. Move to the correct turn-off lane.

Decrease your speed. Begin signaling your intention of turning off the expressway as soon as you slow down.

Read the interchange signs carefully to choose the proper turn-off lane. (If you're on special activity trip, your pre-trip plans should indicate which exits you will take. Make sure you know these in advance so you will recognize the signs when you see them.)

Drive slowly, or stop if necessary, before you enter traffic on the cross highway. And remember -- you are back on slow-driving territory with side streets, traffic lights and pedestrians.

Defensive Driving Tactics for Expressways:

Look ahead for signs of trouble. A knot of cars in the distance means reduce your speed now. Prepare for slow moving traffic or a complete stop.

Look behind for signs of trouble. Your mirrors will warn you of a speeder, a passer or a car out of control.

Watch the pavement for signs of trouble. A rough patch that would cause mild bumping at moderate speed can throw your bus off the road at high speed.

Expressways at Night:

Don't trust oncoming headlights as road guides. The traffic streams may be widely separated. Dim your lights for oncoming cars.

SECTION D

DRIVER FUNDAMENTALS

DETECTING HAZARDS

TABLE OF CONTENTS

OBJECTIVES

OVERVIEW

SEARCHING FOR CLUES

DETECTING ROADWAY HAZARDS CLUES

DETECTING OFF ROAD HAZARDS

DETECTING SINGLE VEHICLE HAZARDS

DETECTING MULTIPLE VEHICLE HAZARDS

DETECTING OTHER ROAD USERS HAZARDS

DETECTING COMBINATION VEHICLE/ROADWAY HAZARDS

OBJECTIVES

By the end of this unit, the students should be able to:

1. Use clues to detect potential hazards.
2. Determine degrees of actual hazards.
3. Select what action they should take to avoid hazards.

OVERVIEW:

You've heard it said that every time you get behind the wheel of a motor vehicle, you take your life in your hands. In the school bus your life and the lives of every one of your passengers are in your hands. With the recent emphasis on defensive driving, more and more operators are becoming aware that just about every driving situation has potential hazards. It's not enough just to know what you're doing. You have to know what everyone else is doing too. If you've been driving a school bus for any length of time, you are aware of some of the hazards involved in your daily run. Some hazards are obvious; some aren't. Some are always there, like the sharp curve. Some seem to appear "out of nowhere", depending on the changing traffic situation. Do you consciously search for hazards as you drive?

In this unit, you'll practice a systematic technique for detecting hazards. You'll use most of your senses to pick up clues that indicate potential and actual dangers. And you'll make decisions about how you should adjust your driving to minimize or avoid hazards. You should get into the habit of being an "automatic hazard detector". Expert school bus operators drive well because they find the hazards before the hazards find them.

You should develop a "mental image" of the clues associated with each hazard. The habit of detecting clues must be strong enough that you can:

1. Distinguish clues within a complex, changing traffic situation.
2. Identify them within the short period of time your eyes are focused upon the situation in normal scanning.
3. Detect them even when you are not consciously looking for them.

Failure to recognize hazards in time is a major cause of accidents.

-- Passenger distraction, inattention, and misinterpretation of traffic sounds have caused operators to react late to auditory clues of impending crash.

-- Safe operators tend to assure themselves of information 12 to 15 seconds ahead.

The smallest time experienced operators tend to allow is 1 3/4 seconds.

-- Even after several months, new operators tend to spend more time monitoring only the road straight ahead than experienced operators.

Accidents, fatalities and rear-end collisions are higher in urban areas as a result of the increase of pedestrian and motor vehicle traffic. Approximately 12-15 percent of all urban school bus accidents are rear-end collisions. These facts emphasize the need for school bus operators to exercise extreme care in urban, and/or congested areas. Alert bus operators are very rarely involved in accidents.

SEARCHING FOR CLUES:

Scan the environment for clues of potential hazards:

1. Continuously scan surroundings on and off the roadway, shifting your gaze frequently. Look well ahead in the lane to focus distance relative to the bus speed and the roadway location. Specifically:
 - a. Focus at farther distances as your speed increases.
 - b. View the road ahead one full block in a city.
 - c. Focus at farther distances down the road in rural areas than you would in urban areas.
2. Avoid fixing your eyes on the road surface immediately forward of the bus

hood.

3. An unobstructed view is important.
 - a. In a moderate number of accidents, collisions occurred at intersections where vision was reportedly obstructed or limited by buildings, vegetation or parked cars.
 - b. Roadside features that obscure your vision at intersections should be treated as if they were traffic lights and signs requiring you to stop. By stopping, you have an opportunity to study the traffic situation more carefully before proceeding rather than haphazardly continuing.
4. Observe other drivers.
 - a. Accidents relating to overtaking vehicles have been caused frequently by failure to note the actions of vehicles ahead. For example, a moderate number of accidents are caused by failure to note traffic stopped ahead for a left turn.
 - b. Another cited cause is failure to check traffic in the adjacent lane prior to entering it to pass and/or to avoid impact with a stopped vehicle.
5. You must know how to gather critical clues.
 - a. The bus operator who keeps abreast of the driving situation by continuous surveillance of traffic, traffic controls and the surrounding environment will recognize hazards while there is time to avoid them.
 - b. You receive the vast majority of the clues you use through your eyes. The more intently you fix your central vision on a particular object, the less aware you will be of clues from your larger field of indirect vision.
6. You must know the demand imposed on you driving in urban or congested areas.
 - a. Visual demands on the operator appear to be about three times as much at 20 miles per hour in the city as at higher speeds on a modern divided highway. The mere presence of pedestrians and children increases your surveillance requirements.
 - b. The greater need for surveillance in the city is partially due to the greater concentration of other vehicles. Traffic controls and pedestrian traffic also contribute to making city driving a more difficult task.
7. You must know the primary sources of potential trouble, and their clues, to be prepared for sudden actions by others.
 - a. Driving alongside parked vehicles is potentially hazardous because your view is limited and hazards can appear when there is little time or space for evasive action.
 - b. Key sources of hazards are:
 - The spaces between parked vehicles through which pedestrians and animals may dart into the street.
 - The parked vehicle that may suddenly move into the path of the bus.
 - Occupants of parked vehicles who may open the vehicle doors to get out without first checking the traffic situation. Positioning the bus

at least four feet out from the parked vehicle will place it beyond the arc of a door being opened.

-- People stepping out from between parked vehicles.

8. Usually, there are clues from parked vehicles of impending entry into a driving lane. Among the clues you will find useful are:

- a. Exhaust fumes - these indicate the engine is running.
- b. Back-up lights - for these lights to be activated, the ignition must be on and the gearshift lever in reverse. The appearance of back-up lights is often followed by a shift to a forward gear.
- c. Brake lights - most drivers depress the brake pedal, thus activating the brake lights, just prior to shifting to a forward gear.
- d. Front wheels - the direction toward which the front wheels are pointed may indicate whether the vehicle is ready to leave the space or still maneuvering into a good position for leaving.
- e. Steering wheel - the steering wheel of vehicles parked to the right of the bus can be seen from some distance. If a steering wheel is not visible, it may mean the driver is behind the wheel.

A separation of at least a car width from a vehicle that is being parallel parked is recommended to accommodate the wide leftward swing of the vehicle's front end as it backs to the right.

9. You should know that you have an active, not passive, role when being passed. Continuously assess the chances for the other driver to safely complete the pass within the distance available. Make adjustments in the bus speed and position to accommodate the passing vehicle. You can flick your high beams at night to signal other drivers that you are aware of their intent to pass.

10. Develop the surveillance habit of scanning 360 degrees around the bus.

DETECTING ROADWAY HAZARDS CLUES:

ROADWAY HAZARDS -

1. Sight Distance Limitations

a. Curves

1. Watch the road ahead for indications of a curve.
2. When approaching a curve, estimate a safe speed (if not posted) from the degree of curvature and banking.

b. Hills and Dips

1. Watch the road and roadside conditions (ex: trees and poles) for signs of hills.
2. In approaching a downgrade, identify a grade which is steep enough to require downshifting.
3. Identify the presence of dips which may obscure another vehicle.

2. Maneuvering Limitations. Detect the following potential maneuvering limitations:

a. Narrow or narrowing lanes.

b. Roadway construction that is difficult to detect.

c. When the road surface ruts are present in gravel or dirt roads, you will:

1. Assess the road surface characteristics adjacent to the rut.
2. Assess the depth of the rut.

3. Traction Limitations

a. Rough Surfaces

1. Detect surface irregularities on asphalt and concrete, such as potholes, cracked pavement, etc.
2. On a wooden surface, look for cracks, holes and nails.
3. On a brick road, look for holes, bumps, cracks, loose bricks and slippery spots.
4. "Washboard" conditions, continuous ruts.

b. Slippery Surfaces

1. Anticipate the smoothness of concrete or asphalt road surfaces at intersections.
2. Recognize areas of the roadway which are soaked with oil, grease or fuel.
3. Estimate depth and extent of deep water which partially or totally covers the roadways.
4. When driving on snow or ice covered roadways:
 - a. Judge the effect of traffic and temperature on road surface friction.
 - b. Observe closely the movement of vehicles approaching on side streets.
5. If ice is melting on the roadway:
 - a. Be alert for ice patches near shaded areas (ex: underpasses and buildings).
 - b. Note spots where direct sunlight may have accelerated melting.
 - c. Look for additional ice patches ahead.

c. Loose Surfaces.

Detect the signs of the following loose surfaces:

1. gravel
2. soft sand
3. wet leaves

4. Traffic Conflict Points

a. Recognize potentially hazardous roadway conditions when approaching and emerging from toll plazas:

1. Look for erratic driving from other drivers whose attention may be diverted while fumbling for money.
2. When emerging from the toll plaza, look for other drivers accelerating rapidly and cutting in to get ahead of the "pack".

b. If driving on an entrance ramp, be alert for vehicles which are stopped or slowing down on the on-ramp.

c. If driving on a long entrance ramp with an acceleration lane that continues on as an off-ramp or deceleration lane, be aware that vehicles may leave the main roadway and cross over to merge onto the acceleration lane. Out-of-state drivers may be unfamiliar with exits and merge at the last minute.

d. When approaching and entering an off-ramp:

1. Be alert for vehicles entering the deceleration lane, if that lane is also part of the acceleration lane for vehicles entering the roadway.
2. When nearing the end of the off-ramp, look for other vehicles which

- may be stopped or waiting in line at the end of the off-ramp.
- e. When approaching and passing interchanges on the freeway, note vehicles in the deceleration lane swinging back into the lane at the last minute.
- f. Look for lead vehicle deceleration at the following locations:
 1. Uncontrolled intersections.
 2. Entrances to highway (on-ramps), including short acceleration lanes and left-hand entrances.
 3. Highway exits (off-ramps), including short deceleration lanes and left-hand exits.
 4. Divergence points (forks in the road).

DETECTING OFF ROAD HAZARDS:

1. Sight Limitations
 - a. When driving on general highways, be alert for hidden traffic, pedestrians or animals obscured from view by nearby roadside structures, trees or dense vegetation.
 - b. When driving in urban areas:
 1. Minimize distractions from the environment by seeking out traffic lights possibly "embedded" in lights from neon signs. This hazard is intensified when streets are decorated with Christmas lights.
 2. In commercial areas, be alert for vehicles emerging from driveways and alleys obscured by buildings, parked vehicles or pedestrian traffic on the sidewalk.
 3. Maneuver Limitations. When driving on roads with shoulders, periodically observe the conditions of the shoulders, including:
 - a. width
 - b. surface condition
 - c. alignment with pavement
 - d. presence of obstructions (ex: signs, guard rails)
 - e. pitch of the roadbed
3. Vehicle Entry Point
 - a. When approaching entrances to driveways, alleys and parking lots, look ahead to determine their locations.
 - b. When driving in off-street areas, be alert for vehicles in or crossing the vehicle's path.
 - c. Be alert for vehicles backing up to the exit or entering a parking space.
4. Pedestrian Entry Point
 - a. When approaching a commercial bus stop:
 1. Look for pedestrians crossing the street to board the bus or streetcar.
 2. Check to see that pedestrians have reached safety before starting.
 - b. Near playgrounds, residential areas, schools:
 1. Be alert for children playing or darting into the path of your bus from behind vehicles, structures or vegetation.
 2. Look for children sledding or otherwise playing in the snow or on

the ice.

3. When driving in an off-street area, be alert for vehicle and pedestrian traffic that may be entering or crossing the traffic aisle from any direction.

DETECTING SINGLE VEHICLE HAZARDS:

Single Vehicle Hazards:

You should be able to recognize clues predictive of traffic hazards involving the motion of an individual vehicle.

1. General - In general, when surveying traffic, observe other drivers driving behavior so that you can watch for clues to how they react:
 - a. Note drivers who frequently change lanes as opposed to those who remain in the lane.
 - b. Note drivers who operate their vehicles with frequent changes in speed as opposed to those who maintain a steady speed.
 - c. Note those drivers who do not signal prior to a maneuver as opposed to those drivers who do signal consistently.
 - d. Note those drivers who stop suddenly in non-emergency situations as opposed to those drivers who decelerate gradually to stop.
 - e. Note out-of-state license plates; drivers may be unfamiliar with locations and road conditions.
2. Losing Control - Recognize clues indicating that another driver may lose control of vehicle:
 - a. Surface conditions that adversely influence oncoming vehicle control (ex: slippery surface, ruts, deep snow, mud or gravel on pavement, etc.)
 - b. Movements of the other vehicle including the following:
 1. Turning too fast (ex: if on-coming driver is turning too sharply after an off-road recovery).
 2. Approaching from the side too fast to stop or turn.
 3. Closing too fast from the rear.
 - c. Movements of your bus (ex: stopped too quickly to allow a following vehicle to stop).
3. Lack of Communication by Other Drivers - Look for clues or situations in which the driver of another vehicle may execute a maneuver without signaling.
 - a. Whenever a turn may be made and the oncoming car may suddenly turn left particularly when:
 1. The vehicle is slowing
 2. The other driver is not aware of your oncoming bus
 3. The other driver is making erratic maneuvers
 - b. When a stopped vehicle gives an indication of imminent movement (example: parked car with driver in seat, exhaust or turned wheels).
 - c. When a driver may be giving a false indication (example: moving to the left near an intersection when he intends to turn right). Any turn signal may be uncanceled from previous maneuver.
4. Failure of the Other Driver to Observe - When there are clues indicating that another driver may not have observed the bus and therefore, may not be prepared

to yield the right-of-way. These clues include the following:

- a. Driver not responding (example: approaching intersection from the side without slowing).
- b. Driver's vision obscured (example: posts, windows)
- c. Driver's view restricted (example: vehicle is partially hidden by trees detectable to you only by reflection of dust).
- d. Your bus may not readily be seen (example: when sun is in other driver's eyes, etc.)

5. Inadequate Adjustment by the Other Driver - Look for indications that another driver is not adjusting properly to a situation. Impatience causes many improper actions. He or she may execute a maneuver that will cause hazard to you, including the following:

- a. Other driver isn't adjusting to an obstruction, such as a pothole or barrier.
- b. Other driver isn't adjusting to a surface condition such as ice or snow.
- c. Other driver isn't adjusting to a pedestrian (example: turning a corner into a street blocked by pedestrians).
- d. Other driver isn't adjusting to another vehicle (example: passing vehicles forced to cut back abruptly).

6. Slow Moving of Stopping Vehicles - Watch for indications that another vehicle is slowing or may stop suddenly.

- a. Slow moving vehicles:
 - farm vehicles
 - underpowered vehicles
 - trucks on hills
- b. Frequently stopping vehicles:
 - buses, including other school buses
 - buses and trucks carrying inflammables at railroad crossings
 - postal delivery vehicles
- c. Vehicles that are engaged in the following maneuvers:
 - turning or exiting
 - entering the roadway
 - merging with other vehicles
 - approaching controlled intersections or railroad crossings

LOCAL SINGLE VEHICLE HAZARDS:

Ice cream vendor type vehicles create special, high risk hazards. They frequently come with a bell, horn or some audible device that attracts the attention of their market – young children.

At the approach of the vehicle, children often come running from all directions, between parked cars, etc., with no thought of their personal risk. Only one thought occupies their mind - ICE CREAM.

A safe school bus operator must be mentally alert to these special hazards and carefully practicing defensive driving to avoid injuring or killing a small child who dashes suddenly into the street with no recognition or thought of the hazard.

DETECTING MULTIPLE VEHICLE HAZARDS:

You should be able to recognize the clues in a traffic pattern that are predictive of a potential conflict.

1. Traffic Convergence - One or more vehicles converging on a traffic stream may force another vehicle into a conflict.
 - a. May force another vehicle to change lanes, including entering from side of road, driveway, freeway ramps, etc.
 - b. May cause other vehicles to stop suddenly.
2. Vehicle Obstructions - A vehicle slowing or stopping may cause another vehicle to drive around it, causing a conflict.
 - a. Drivers tailgating, indicating a chance of a sudden pass.
 - b. Slow-moving or stopped vehicles encourage other vehicles attempting to pass.
 - c. A vehicle entering into the roadway, forcing other vehicles around it.
3. Limited Traffic Visibility - One vehicle may limit another's visibility, allowing the other driver to enter a potential conflict (ex: an oncoming driver turns left).
4. Pedestrian or Animal - The presence of a pedestrian or animal in close proximity to traffic lanes could trigger a sudden evasive maneuver on the part of one motorist that could result in a multiple vehicle accident.
5. Tailgating vehicles in heavy (rush-hour type) traffic often triggers multiple vehicle accidents when conditions such as fog, ice, etc., are encountered.

DETECTING OTHER ROAD USERS HAZARDS:

You should be able to recognize clues of potential conflict with other road users, including pedestrians, cyclists and animals. Clues will include the following:

1. Position of Road User Relative to Roadway
 - a. Pedestrians near roadway.
 - b. Cyclist in roadway.
 - c. Animals near roadway.
2. Motion of Road User
 - a. Pedestrian running toward roadway.
 - b. Children at play.
 - c. Animals near roadway.
3. Road User's Ability to See
 - a. Road user's vision (ex: pedestrian carrying packages, umbrella).
 - b. Line of sight (ex: driver alighting from parked vehicle).
4. Attentiveness of Road User
 - a. Activity (ex: child chasing ball).
 - b. Attention (ex: pedestrian looking the other way, talking, etc.).
5. Lack of Control (ex: motorcyclist turning on a slippery surface, gravel, etc.).

DETECTING COMBINATION VEHICLE/ROADWAY HAZARDS:

You should be able to identify potential hazards arising out of the interaction between vehicles and roadway.

1. Decision Point - Any point in the roadway at which drivers are confronted with decisions representing a potential point of conflict (ex: a vehicle starting to exit from

a freeway may suddenly return to the freeway; drivers unfamiliar with route sign may be in the wrong lane for their destination and change lanes suddenly at intersections or as two major routes split).

2. Compression Point - Any point at which the roadway is compressed represents a potential source of conflicts (ex: a vehicle approaching a point where four lanes become two, may suddenly change lanes).

SECTION E

DRIVER FUNDAMENTALS EMERGENCY DRIVING TECHNIQUES

TABLE OF CONTENTS

OBJECTIVES

OVERVIEW

SKID CONTROL

TIRE BLOWOUT

LOSS OF BRAKES

OBSTRUCTION IN PATH OF BUS

SUDDEN LOSS OF VISIBILITY

OBJECTIVES

By the end of this unit, the students should be able to select appropriate driving techniques to maintain or regain control of the bus under five emergency conditions:

1. Skid
2. Tire blowout
3. Brake loss
4. Obstruction in path of bus
5. Sudden loss of visibility

OVERVIEW:

Expert drivers don't depend on their skill to get them out of tight spots. They depend on their judgment to avoid tight spots. IT'S A LOT EASIER TO STAY OUT OF TIGHT SPOTS THAN TO GET OUT OF THEM. However, you may find yourself confronted with one of these five emergency conditions:

1. Skid
2. Tire blowout
3. Brake loss
4. Obstruction in path of bus
5. Sudden loss of visibility

Under these conditions, you must know what emergency driving techniques to use. Your responses must become automatic because you will not have much time to think about what you should do.

The procedures in this unit are "last ditch" measures to avoid an accident if at all possible. Since it is impossible to completely eliminate human error in the performance of routine driving tasks, your ability to take appropriate and immediate action under emergency conditions becomes critical.

SKID CONTROL:

Any number of factors can cause a school bus to go into a skid. During a skid, tires lose proper traction with the road surface. The normal means of controlling the bus are affected steering, braking, decelerating and accelerating. You must be able to detect a loss of traction in time to maintain or regain control of the bus. Loss of traction may include:

- Skids caused by tire failure resulting from under inflation or sudden deflation from a blowout.
- Front wheel skids resulting from faulty brakes, excessive speed.
- Rear wheel skids resulting from faulty brakes, excessive acceleration or speed on curves, rough or slippery surfaces.
- Four wheel locked brake skid resulting from inappropriate application of brake pressure.
- Hydroplaning resulting from traveling too fast on a water covered roadway with lack of attention given to tires, tread and pressure.
- Skids caused by oil on the road after the first few minutes of rain.

Once you lose traction and bus goes into a skid, you must be able to regain directional control:

1. STEERING - Immediately apply controlled steering (turn into the skid -- this means steer the wheels in the direction you want to go). Follow by controlled counter-steering to dampen fishtailing until steering control is re-established.
2. BRAKING - Apply no brake pressure until steering control is re-established.
3. DECELERATION - Remove pressure from the accelerator smoothly (not suddenly) and do not accelerate again until steering control is re-established.
4. ACCELERATION - Once steering control is re-established, shift to lower gear and accelerate gradually to maintain traction.

TIRE BLOWOUT:

1. Grip the steering wheel firmly and steer your vehicle straight down the center of your lane.
2. DO NOT apply your brakes.
3. Take your foot off accelerator. If bus starts to skid, follow skid procedure.
4. Activate right turn signal, move right slowly, out of the lane of traffic and stop. Watch out for soft shoulders which could make the control of the bus even more difficult.
5. Activate 4-way hazard lamps, not red flashing warning lights.
6. Decide whether to evacuate your children while the repair is being made.
7. Follow procedures for mechanical breakdown.

LOSS OF BRAKES:

If you're ever confronted with a partial or total loss of brakes:

1. Pump the brake pedal and sound horn, flash headlights, etc.
2. Downshift to lowest gear possible.
3. If there is an upgrade within the assured clear distance ahead, stay on the road and allow the upgrade to slow the bus. Then select a path for leaving the roadway.

4. If no upgrade is within the assured clear distance ahead, select a path for leaving roadway that will minimize injuries and property damage. If you must go into a bank, turn into it at an angle. Otherwise, bus may flip over.

OBSTRUCTION IN PATH OF BUS:

When you suddenly see obstruction -- a pedestrian, ball, another vehicle, construction barrier, etc., -- in the direct path of the bus, you must take evasive action to avoid hitting it.

Evasive action is simply the exercise of your fundamental driving maneuvers under conditions of stress -- limited time, space and distance. You must decide which of these evasive actions you should perform to avoid hitting the obstruction.

1. Modulated braking.

2. Quick steering to the right, with or without braking.

3. Leaving the paved portion of roadway, with or without roadside hazards present. For effective evasive action, you must be able to inhibit the tendency to slam on the brakes. Generally, operators tend to apply the brakes at the first sign of trouble. While effective in many instances, braking can lock the wheels and cause loss of steering control, making it impossible to steer away from a collision.

You may decide that braking to a stop is the best evasive action you can take to avoid the obstruction. This will depend on how fast you are going, how far away the object is, how good your tires are and whether the road is wet, dry, icy, etc.

Because the obstruction is an emergency, you won't have time to do lengthy calculations. If it's not instantly obvious that you can stop in time, you must choose to steer the bus in an alternate path. You must be able to recognize quickly the best "escape route". At a glance, decide:

- Whether a possible escape path is free of hazardous obstacles.
- Whether clearances are sufficient to allow the bus to pass through them.
- Whether an off-roadway surface will permit steering control.
- Whether the obstruction is likely to move into your escape path.
- Whether one escape route is safer than another.

The size and weight of the bus limits its ability to swerve sharply to avoid an object or to leave the pavement with any great degree of control. Overturning is a danger.

STEER FIRMLY AND AS GRADUALLY AS POSSIBLE TO STILL CLEAR THE OBSTRUCTION. USE ONLY MODULATED BRAKING.

It can't be stressed enough that your decision will probably have to be a split-second one. Rehearse these points so that you can decide what evasive action is best.

- If you're traveling as fast as 40 mph, the obstruction has to be at least 200 feet away for you to stop safely. That's 2/3 of a football field! Any closer, and you'd better steer around it or off the road.
- Behind every rolling ball, there's likely to be a running child. Just because the ball clears your path in time doesn't mean you are out of danger.

- If you're in a tight spot, hitting the obstacle might be the safest thing to do. For example, with heavy oncoming traffic, heavy pedestrian traffic on sidewalk to your right, suppose a construction warning sign is the unexpected obstacle less than 10 feet away in your lane. You're going 25 mph. You cannot stop in time, and steering left or right would create a worse collision. You may assess the relative dangers and decide it is better to demolish the sign.

IN ANY CASE WHERE COLLISION IS ABSOLUTELY UNAVOIDABLE TRY TO:

- Avoid a head-on collision; collision at an angle reduces force of impact.
- Avoid hitting human beings. If you have a choice, it is better to hit inanimate objects than people.

Remember: You are more likely to avoid hitting any obstruction in the path of the bus if you always anticipate the unusual and practice effective evasive action so it becomes as automatic as possible.

SUDDEN LOSS OF VISIBILITY:

Several things can cause sudden loss of visibility – water splashed onto windshield, headlight failure, hood flies up, etc.

You must know how to control the vehicle until you can regain normal visibility. You'll have to use clues other than the usual visual clues.

IF THE HOOD FLIES UP:

1. Lower your head and try to look through the gap at the hinge.
2. Look out the left and right windows to help keep your sense of direction.

3. Apply brakes moderately.
4. Activate your right turn signal.
5. Steer out of the traffic lane and stop.
6. Activate four-way hazard lights (not red flashing).

IF THE HEADLIGHTS FAIL:

1. Immediately hit dimmer switch.
2. Activate right turn signal, four-way hazards.
3. Use available environmental light to keep sight of road.
4. Brake slowly and steer out of traffic lane and stop.

IF WATER/SLUSH IS SPLASHED ON WINDSHIELD:

1. Apply the brakes cautiously; look out side windows to keep sight of road.
2. Turn on wipers.

IF WINDSHIELD WIPERS FAIL DURING RAIN/SLEET/SNOW:

1. Look out side windows to keep sight of road.
2. Apply brakes cautiously.
3. Activate right turn signal.
4. Pull over as far to the right as possible, or off road and stop.

SECTION F

SAFETY/SECURITY AND EMERGENCY PREPAREDNESS

TABLE OF CONTENTS

OBJECTIVES

GENERAL CONCLUSIONS ABOUT SCHOOL BUS ACCIDENT FACTORS

ACCIDENT PROCEDURES

MECHANICAL FAILURE/BREAKDOWN PROCEDURES

EVACUATING THE BUS

USING EMERGENCY EQUIPMENT

LOCAL POLICIES

TWO-WAY COMMUNICATIONS

SCHOOL TRANSPORTATION SAFETY AWARENESS

SCHOOL BUS WATCH

OPERATION LIFESAVER

FUELING

CELL PHONES

STROBE

EMERGENCY EVACUATIONS

FOOD/GIFTS/HANDOUTS

OBJECTIVE

By the end of this unit, the students should be able to:

1. Identify the major causes of school bus accidents and describe actions to avoid accidents.
2. Identify his/her legal responsibilities and required action in case of an Accident
3. State the county's policy on eight accident/emergency issues.
4. Describe and demonstrate emergency procedures to follow.
5. Effectively operate a 2 way communication system.

GENERAL CONCLUSIONS ABOUT SCHOOL BUS ACCIDENT FACTORS:

On a national level, certain factor influence school bus accidents. Your local statistics may vary.

- a. School bus operators are at fault about half the time.
- b. Collision between a school bus and another vehicle in traffic is the most common type of school bus accident.
- c. Young people and elderly operators tend to have a higher accident rate than the intermediate age group.
- d. Defective brakes on the bus is the most common mechanical factor in accidents. BUT, mechanical failures cause a very low percentage of accidents.
- e. More students are killed approaching or leaving the bus than on board the bus.

SCHOOL BUS OPERATORS LIABILITY FOR PUPIL INJURIES:

You may be held liable for injuries to school children resulting from your negligence. All four essential elements or grounds for negligence must be present. Courts generally consider these to be:

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 reasonably close casual connection between your conduct and resulting injury.
4. Actual loss or damage resulting to the interests of another.

School Boards in West Virginia through the State Board of Risk and Insurance Management, carry insurance against driver negligence. Operators could become liable for any awards in excess of insurance carried.

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

1. The degree of care which the operator must use ranges from "ordinary" and "reasonable" to "extraordinary" and "highest degree". The degree required depends on the type of duty. The tendency of the courts is to require more care from people with a duty involving younger children.

2. The approximate age of a child to be capable of recognizing traffic dangers is 10 to 11 years.
3. You and your district are both accountable for maintaining a safe vehicle.
4. Most cases involving accidents while boarding and alighting from a bus use the factors of "reasonable care" and "safe places" in determining negligence.

Know possible alternatives and select appropriate location for first day. The Transportation Director is responsible for selecting and locating all stops.

5. You are expected to keep order on a bus and may use any normally accepted means.
6. You are not automatically guilty of negligence if injury occurs. You have the opportunity to refute the charge by proof that proper care was used.
7. You may generally be held accountable for your acts separately from any decision regarding district liability.

8. NEGLIGENCE IS FOR JURY DETERMINATION.

Your instructor will describe a case history involving a law suit.

NOTE - A school bus accident is when a bus bumps or touches another vehicle, person or object and causes damage.

ACCIDENT PROCEDURES:

If you have an accident, there is a procedure to follow that will meet the requirements of the state law. No two accidents are the same. The sequence of things in the suggested procedure may not be practical in every case. At times, good common sense will be the rule.

Your primary responsibility is to your passengers. Therefore, your first responsibility is to remain calm. If you are unable physically to perform your duties, direct others to do them for you. Should this be the case, ask your oldest and most capable student to help.

The following procedure is recommended:

1. Stop immediately.
2. Turn off ignition switch.
3. Set brakes.
4. Remain calm and reassure students.
5. Evacuate and assemble passengers in a safe location, if required.
6. Extinguish any existing fire, if possible.
7. Apply first aid as needed.

8. Use warning devices to "protect the scene".
 - a. Protect the passengers and the bus from further accidents and injuries.
Place bi-directional reflective devices in accordance with state law.
 - b. Protect the scene from traffic and people so that evidence is not destroyed.
(West Virginia Motor Vehicle Law, Chapter 17C, Article 14, Section 40.)
 - c. Under normal circumstances, the vehicle involved should not be moved until law officers advise you to do so.
9. Be alert to a fire or the possibility of fire.
 - a. Check for ruptured fuel lines. A bus can be a potential furnace.
 - b. Check for electrical fire.
 - c. Look for smoke.
 - d. Check for hot tires which may catch fire -- caused by metal rubbing against a tire from point of impact to final resting place.
 - e. Extinguish fire, if any.
10. Check for injury to passengers.
 - a. If passengers are injured, follow first aid procedures.
11. Keep all passengers in the bus unless hazards exist, such as:
 - a. Conditions that might lead to a fire.
 - b. Danger of further collision.
 - c. Danger of drowning, bus overturning, etc.
12. Account for all passengers.
13. Notify school administrators of the location of the bus accident.
14. Notify the appropriate law enforcement agency. (West Virginia Motor Vehicle Law, Chapter 17C, Article 4, Section 1-10).
15. Do not discuss the facts of the accident with other motorists but give information only to investigating officers and school officials.
 - a. To provide necessary information for all concerned --law enforcement officers, school officials, etc.
 1. List all passenger's names, ages, addresses and phone numbers.
 2. Information about the school bus, such as insurance, make, model number, owner, etc. An emergency packet should be carried on the bus which includes bus information, emergency telephone numbers and any additional local directives covering this subject.

- b. While being investigated, be patient, evaluate questions and give clear and concise answers.
 - c. An operator involved in an accident is required to give their name, address, driver's license number and vehicle information. Be ready to give this information to the other driver and also write down the same information regarding them.
 - d. If witnesses were present, other than your passengers, get names, addresses, phone numbers and license numbers.
16. Cooperate with school administration.
- a. During the investigation of the accident, do not release any of your passengers to anyone unless told to do so by the school administration.
 - b. If passengers are injured and need to be removed from the scene, follow policy adopted for this purpose at the local level. If not, send someone to call for aid, such as hospital ambulance service or fire department -- wherever help can be summoned quickly. The injured should be transported by proper means to a hospital for care.
17. Continue the transportation of the passengers by:
- a. The present bus, if released.
 - b. Another bus.
 - c. Some other means - again following local policies of the counties, but not until authorized to do so.

We will now go over our forms and how they are to be filled out.

MECHANICAL FAILURE/BREAKDOWN PROCEDURES:

Despite good design, engineering and/or the preventive maintenance programs, you may have mechanical failures occasionally. You must know what to do, how to do it and when it should be done in case of a breakdown while on the road.

Let's begin by studying legal requirements as far as equipment is concerned.

- NOTES:
1. Emergency (4-way) flasher.
 2. Bi-directional Reflective Devices

Here is a suggested procedure for mechanical failure:

1. Stop the bus as far to the right of the road as possible, or on the shoulder of the road.
2. Secure the bus; activate 4-way hazard lights and set brake.
3. Keep passengers in bus unless this is unsafe.
4. If location of the bus is unsafe, remove passengers to a safe location (see EVACUATING THE BUS).
5. Place bi-directional reflective devices in accordance with state law.
6. Telephone or radio the proper school authorities, giving location of the bus and description of breakdown. (Emergency phone list should be prominently displayed in bus.)
7. See that all passengers are delivered to their destination.
8. Complete maintenance repair reports.

EVACUATING THE BUS:

1. The school bus operator shall conduct and supervise emergency exit drills at least twice per year.
2. The school bus operator shall conduct and supervise an emergency exit drill before every curricular, co-curricular and extra-curricular trip. Usually, passengers remain on the bus during an emergency, but some situations require that you evacuate the bus, such as:
 - FIRE OR DANGER OF FIRE
 - UNSAFE POSITION
 - DANGER OF DROWNING
3. Fire or danger of fire: a bus should be stopped and evacuated immediately if the engine or any portion of the bus is on fire. Passengers should move distance of 100 feet or more from the bus and remain until the operator of the bus has determined that no danger remains. Being near an existing fire and unable to move the bus

away or near the presence of gasoline or other combustible material should be considered as "danger of fire", and passengers should be evacuated.

4. Unsafe position: in the event that a bus is stopped due to an accident, mechanical failure, road conditions or human failure, the operator must determine immediately whether it is safer for passengers to remain in the bus or to evacuate. You must evacuate if:

a. The final stopping point is in the path of any railroad tracks constituting a hazard to passengers.

b. The stopping position of the bus may change and increase the danger. If, for example, a bus should come to rest near a body of water or embankment where it could still move and go into the water or over a cliff, it should be evacuated. The operator should be certain that the evacuation is carried out in a manner which affords maximum safety for passengers.

c. The stopping of the bus is such that there is danger of collision. In normal traffic conditions, the bus should be visible for a distance of 300 feet or more. A position over a hill or around a curve where such visibility does not exist should be considered reason for evacuation.

d. The bus is situated in the path of a tornado from which it is impossible to escape by driving at a 90 degree angle. In such cases, promptly evacuate the bus and guide the passengers to the safest existing location, a ditch or depression in the ground surface, the protection of a concrete bridge abutment, a nearby basement, etc. NEVER take cover from a tornado behind a tree or other object that could fall upon you.

3. Danger of Drowning: Statistically the danger of drowning has not been a major factor in school transportation safety. However, the threat can and does arise occasionally. The best possible safeguard is to avoid situations where the potential threat of drowning exists. A thorough knowledge of your area of operation and a carefully outlined plan to minimize any danger of exposure to conditions that could result in drowning will most likely prevent any such occurrence. Some situations planning should include are:

a. Flash floods - even in areas where flooding does not normally occur.

b. Rising streams from heavy or prolonged precipitation.

c. Mud slides or bridge damage that could trap you in rising water situations.

d. A vehicle accident or loss of control situation where your bus enters or could enter a body of water that would threaten your passengers with drowning.

In an emergency, it is possible for passengers to jam the emergency door by all trying to get out of the door at the same time. To help avoid this situation, you should organize and conduct emergency exit drills for all passengers who ride school buses. West Virginia regulations require two a year. They are several ways to evacuate:

1. Through the rear or side emergency door.
2. Through the front entrance door.
3. Through the front door and rear half exits through the rear or side door
4. Through the roof hatches
5. Through side door alone or in combination with 1-4 above.

Explain to all passengers who ride the bus the procedure to be followed if it is necessary to evacuate a bus. The following is one recommended procedure that may be adapted to a local situation.

Suggested Front Door Evacuation Drill Conducted on School Grounds:

In the interest of safety, all bus operators should conduct an emergency evacuation drill through the front door when they unload at the schools at least twice a year with each bus load of passengers. This approach does not take anymore time than the regular unloading procedures.

Follow these steps:

1. Stop the bus, set parking brake and turn off engine.
2. Stand, open the door, face the passengers and get their attention.
3. Give the command: "Emergency drill, remain seated, front evacuation".
4. The bus operator shall direct passengers.
5. Standing between the first occupied seats, turn and face the front of the bus.
 - a. Starting with the right-hand seat, tap the shoulder of the passenger nearest the aisle to indicate that those occupants shall move out. Say, "Walk--Don't Run--Use Hand Rails".
 - b. Hold a hand before the occupants of the left-hand seat in a restraining gesture.
6. When the passengers in the right-hand seat have moved forward far enough to clear the aisle, dismiss the occupants of the left-hand seats.
7. Continue evacuation procedure as described, right and left seats alternately, until the bus is empty.
8. When the last seat is empty, walk to the front of the bus checking to see that everyone is out.

9. After you leave the bus, go to passengers and advise them of improvements to be made or tell them of the job well done, then immediately dismiss them for class. If there are passengers who are to continue on to another school, reload them and continue run.

Suggested Rear Door Evacuation Drill Conducted on School Grounds

Rear emergency door evacuation or side-door evacuation works in reverse of the one just explained. Explain how the doors work and instruct passengers not to open them until you give the command to do so.

- Safety of passengers is of the utmost importance and must be considered first.
- You are responsible for the safety of the passengers; however, in an emergency the operator might be incapacitated and unable to direct the passenger emergency evacuation. It is important to have passengers available who know how to:
 - a. Bring bus to a safe stop.
 - b. Turn off ignition switch.
 - c. Set emergency brake.
 - d. Summon help when and where needed.
 - e. Use kick-out windows.
 - f. Set bi-directional reflective devices.
 - g. Open and close doors and account for all passengers passing their station.
 - h. Help passengers off bus.
 - i. Operate 2-way radio.
 - j. Perform other assignments.
- "Emergency drills" for school buses should be organized in a manner similar to fire drills held regularly in schools. School bus drills should be held more often during fall and spring months, preferably when bus arrives at the school building with the passengers.
- Drills should be held on school property and not on bus route.
- Types of bus drills held should be varied.
- Operators should stay in bus during evacuation drills. Be sure that the emergency brake is set, ignition off and transmission in gear.
- Do not permit passengers to take lunch boxes, books, etc., with them when they leave the bus. Getting the passengers off safely in the shortest time possible and in an orderly fashion is the object of a school

bus evacuation drill.

- The passengers should go to a distance of at least 100 feet from the bus in an "emergency drill" and remain there in a group until give further directions.
- All passengers should be given an opportunity to participate, including those passengers who only ride a bus on special trips.
- Each passenger should be instructed in the proper safety precautions while riding the bus and in drill procedure.
- Instruct passengers in how and where to get help. Instructions and telephone numbers should be posted or otherwise carried in the school buses.

EVACUATING NOT AMBULATORY STUDENTS FROM THE SPECIAL NEEDS BUS

Students who ride to and from school in wheelchairs or other mobile seating devices, and passengers utilizing a CRS, must be given special consideration when it is required to evacuate them from a school bus.

NOTE:

- a. Be familiar with your county's written policy covering these drills.
- b. Conduct drills at schools, preferably on school grounds and in a safe location.

REMEMBER:

- a. All windows in your bus which are mounted in rubber can be kicked out to make an extra avenue of exit.
- b. A seat cushion can be used to knock out windows should the need exist. (Be sure to knock out jagged edges of glass.)
- c. Keep first aid kit and fire extinguisher in a state of readiness.
- d. Use a "palm up" approach to provide assistance as needed when the rear emergency door is being used as an exit.

USING EQUIPMENT:

When an emergency or accident happens, it's too late to learn how and where to use the emergency equipment. You should know the location and operation of:

- BI-DIRECTIONAL REFLECTIVE DEVICES
- HAZARD FLASHERS
- FIRST AID KIT
- FIRE EXTINGUISHER
- BELT CUTTER
- CELL PHONE
- BODY FLUID CLEAN UP KIT
- STROBE LIGHT
- FIRE BLANKET
- TRASH CONTAINER

1. Bi-directional Reflective Devices

- a. Place one device at the side of the bus on roadway side -- 10 feet from rear of bus.
- b. Place second device approximately 100 feet to rear of bus.
 1. Placement distance should be greater if bus is on a hill or in a curve.
 2. Distance is not to exceed 300 feet.
- c. Place third device 100 feet on front of the bus on a two lane highway, 200 feet to the rear on a four lane highway, again using greater distances if conditions warrant.

2. Four-way hazard flashers - use with good judgment.

3. First Aid Kit

- a. Each bus shall carry a 36 unit first aid kit conforming Policy 4334.
- b. Replace any item used from the emergency equipment supplies as soon as possible.

4. Fire Extinguishers

- a. Bus shall be equipped with at least one (1) dry-chemical fire extinguisher of metal construction, refillable, and with a rating of not less than 2A-10-BC as required by Policy 4334 - suitable for Class A - B - C type fires.
- b. Fire extinguishers shall bear label of Underwriter's Laboratories, Inc. showing rating of not less than 2A-10-BC.

- c. The extinguisher shall be mounted in the driver's compartment, conveniently accessible, and held by a substantially constructed bracket and securely mounted so as to withstand normal vehicle vibrations.
 - d. The fire extinguisher must have a current inspection certificate.
5. A belt cutter shall be securely mounted easily accessible to the driver from a seated position.
 6. Some buses may be equipped with county owned cell phones, however, no cell phones are to be used by the driver while the bus is in motion.
 7. Every bus must be equipped with a body fluid clean up kit and all drivers must be trained in the proper use and disposal of its contents.
 8. Strobe lights are to be used only during adverse visibility conditions.
 9. Each lift equipped bus will be equipped with an emergency fire blanket. This blanket will be used for the purpose of assisting with emergency evacuation.
 10. When used the trash container shall be secured by a holding devise that is designed to prevent movement, but to allow easy removal and replacement. It shall be installed in an easily accessible location in the driver's compartment, not obstructing passengers access to the entrance door.

FUELING THE BUS

No fueling shall take place while passengers are on board.

DISTRIBUTION OF ITEMS

School bus operators shall not distribute items to passengers unless authorized by school administrators, i.e., candy, food and gifts.

PERSONAL DRESS

Transportation employees are professionals and should conduct their affairs in a businesslike, professional manner. They should be neatly dressed in regular or conservative type street clothes. All drivers/aides will wear non-skid shoes. No high heels, sandals, open toed or open heeled shoes or beach type shoes will be permitted. Wooden soled and flip-flop shoes will not be worn.

Classification of Fires:

Accepted standard practices separate fires into three general classes. Study chart given.

Dry Chemical Extinguisher (Air Pressurized).

A gauge is mounted at the top of the extinguisher indicating the air pressure. The gauges are usually divided into two areas of green and red indicating low and high pressure. If the needle on the indicator stays in the green area, it is properly charged. To operate:

1. Remove from bracket.
2. Hold in upright position. Due to construction of cylinder, extinguisher should not be laid on side to operate.
3. Pull safety pin by breaking seal.
4. If possible, stand upwind from burning material to prevent standing in smoke and heat.
5. Squeeze handle to discharge the powder.
6. Do not walk into unburned material that could catch fire in a backflash and cause injury to you.
7. Turn on and off as desired to control the fire.
8. The fire extinguisher, regardless of the extent of use, should be recharged or replaced immediately after use.

WHAT TO DO AFTER THE FIRE IS OUT:

Who to call --

How to report damage --

Some other emergencies that could affect the operations of your bus, and the safety of your passengers are:

1. Floods
2. Tornadoes

3. Snowstorms
4. Forest fires

LOCAL POLICIES:

You are in full charge of the bus at all times. Knowing proper emergency procedures, emergency evacuation procedures, and accident scene procedures is a must! These areas of responsibility deal directly with the safety and care of your passengers in the event of an accident, as well as other emergency situations which may arise.

As school bus operator, you must know:

1. What to do
2. How to do
3. When to do

Here are your school county's policies on what the operator is to do about eight issues which may arise in an accident/emergency situation.

TWO-WAY COMMUNICATIONS:

a. USE

1. Minimum use.
2. Be concise.
3. Speak clearly.
4. When calling, identify. (ex: "Bus #____to Base")
5. No profanity or unnecessary communication.
6. Acknowledge message received.
7. For emergency only. If not directly involved, stay clear.
8. Instructor will explain:
 - a. Turn on and off
 - b. Using the mike
 - c. Different channels

b. PROCEDURES FOR EMERGENCY RADIO USE

1. Depress button on mike and say "Bus # ___ to _____'emergency'".
2. Release button and wait for response.
3. Depress button and give exact information.
 - a. Bus number
 - b. Location
 - c. Type of emergency

d. Assistance needed

Be brief, accurate, calm and stay near the radio in case more information is needed.

c. CARE

1. Avoid contact with liquids.
2. Avoid rough treatment.
3. Check daily to make sure it is functioning properly.
4. Clean with slightly moist cloth (no water).
5. See the unit is secure at the end of the shift.

REFER TO SPIDER TRAINING MANUAL FOR ADDITIONAL INFORMATION REGARDING SAFETY/SECURITY AND EMERGENCY PREPAREDNESS

SECTION G

PASSENGER CONTROL

TABLE OF CONTENTS

OBJECTIVES

OVERVIEW

LOADING PROCEDURES

UNLOADING PROCEDURES

GENERAL RULES FOR PASSENGER CONDUCT

YOUR RESPONSIBILITY FOR DISCIPLINE

PASSENGER MANAGEMENT

WHEN YOU HAVE DISCIPLINE PROBLEMS

REPORTING DISCIPLINE PROBLEMS

PROPER PROCEDURES

POLICY 4337 STUDENT CODE OF CONDUCT - Ref. Sec 10.

OBJECTIVES

By the end of this unit, the students should be able to:

1. List the procedures for controlling the bus and passengers during loading and unloading.
2. Describe general rules of passenger conduct and discipline procedures.
3. Identify types of disorder requiring immediate attention and describe procedures for controlling them.
4. Report passenger control problems.

OVERVIEW:

You must learn proper procedures for controlling traffic, for crossing passengers, for loading and unloading passengers and for the proper seating of passengers.

First, consider the equipment on the bus necessary to accomplish these purposes.

1. 8-way flashing warning light system.
2. Stop Arm
3. Mirrors
4. Entrance door.
5. Crossing Control Arm.

We will explain the reason each is listed as we proceed.

Loading and Unloading

More students are killed while getting on or off a school bus each year than are killed as passengers inside of a school bus.

As a result, knowing what to do before, during, and after loading or unloading students is critical.

This section will give you specific procedures to help you avoid unsafe conditions which could result in injuries and fatalities during and after loading and unloading students.

Rationale: Some stops require different procedures, related to the use of loading lights. Depending on whether you are loading on the highway or off the highway. If you are loading off of the highway the loading light system should not be activated. However all necessary precautions should be taken to ensure the safety of the students.

On highway loading procedure

Each school district establishes official routes and official school bus stops. All stops should be approved by the school district prior to making the stop. You should never change the location of a bus stop without written approval from the County Transportation director.

You must use extreme caution when approaching a school bus stop. You are in a very demanding situation when entering these areas.

It is critical that you understand and follow all state and local laws and regulations regarding approaching a school bus stop.

This would involve the proper use of mirrors, alternating flashing lights, stop arm, and crossing control arm.

When approaching the stop, you should:
Approach cautiously at a slow rate of speed.
Make a light brake application to activate brake lights so that vehicles behind you will have an indication that the bus is about to stop.

Activate

alternating flashing amber warning lights at least 200 feet or approximately 5-10 seconds before the school bus stop.

Look for pedestrians, traffic, or other objects before, during, and after coming to a stop. Continuously check all mirrors.

Continuously check mirrors to monitor the danger zones for students, traffic, and other objects. Move as far as possible to the right on the traveled portion of the roadway.

Bring school bus to a full stop with the front bumper at least 10 feet away from students at the designated stop. This forces the students to walk to the bus so you have a better view of their movements.

Place transmission in Park, or if there is no Park shift point, in Neutral and **set the parking brake at each stop.**

Open service door, if possible, enough to activate alternating red lights when traffic is a safe distance from the school bus.

Make a final check to see that all traffic has stopped before completely opening the door and signaling students to approach.

Loading Procedures

Students should wait in a designated location for the school bus, facing the bus as it approaches.

Students should board the bus only when signaled by the driver.

Monitor all mirrors continuously.

Count the number of students at the bus stop and be sure all board the bus. If possible, know names of students at each stop. If there is a student missing, ask the other students where the student is.

Have the students board the school bus slowly, in single file, and use the handrail. The dome light should be on while loading in the dark.

Wait until students are seated and facing forward before moving the bus.

There must be sufficient space on the school bus seat for each passenger's body to be completely contained within the seat compartment in the event of a crash or sudden driving maneuver, students who are not completely seated within the seat compartment may not benefit from the passenger crash protection system built into the school bus under federal and state regulations.

Check all mirrors. Make certain no one is running to catch the bus.

If you cannot account for a student outside, secure the bus, take the key, and check around and underneath the bus.

When all students are accounted for, prepare to Leave by:

Closing the door.

Engaging the transmission.

Releasing the parking brake.

Turning off alternating flashing red lights.

Checking all mirrors again.

Allowing congested traffic to disperse.

When you have determined it is safe, proceed and continue the route.

Off highway Loading

If an off Highway stop has been established and at any time the circumstances change requiring a student to cross the Highway. The County Transportation Director must be notified prior to changing the stop. Then an approved and proper procedure can be made.

You must use extreme caution when approaching a school bus stop. You are in a very demanding situation when entering these areas. It is critical that you understand and follow all state and local laws and regulations regarding approaching a school bus stop.

This would involve the proper use of mirrors.

When approaching the stop, you should:
Approach cautiously at a slow rate of speed.
Look for pedestrians, traffic, or other objects before, during, and after coming to a stop.
Turn on right turn signal indicator about 100-300 feet or approximately 3-5 seconds before pulling

over.

Continuously check mirrors to monitor the danger zones for students, traffic, and other objects. Move a safe distances from the travel portion of the roadway.

Bring school bus to a full stop with the front bumper at least 10 feet away from students at the designated stop. This forces the students to walk to the bus so you have a better view of their movements.

Place transmission in Park, or if there is no Park shift point, in Neutral and set the parking brake at each stop.

Make a final check and when you have determined that it is safe, open the door and signal for students to load.

Loading procedure at School

The loading procedure is essentially the same Wherever you load students, but there are slight differences. When students are loading at the school campus, you should:

Turn off the ignition switch.

Lift equipped buses may require a different procedure

Remove key if leaving driver's compartment.

Position yourself to supervise loading as required or recommended by your state or local regulations.

Unloading Procedures on Highway

To be used when there is no student crossing the highway

Perform a safe stop at designated unloading areas as described.

Open service door, if possible, enough to activate alternating red lights when traffic is a safe distance from the school bus.

Make a final check to see that all traffic has stopped before completely opening the door

Have the students remain seated until told to exit.
Check all mirrors.

Tell students to exit the bus and walk at least 10 feet away from the side of the bus to a position where the driver can plainly see all students

Count the number of students while unloading to confirm the location of all students before pulling away from the stop.

Check all mirrors again. Make sure no students are around or returning to the bus.

If you cannot account for a student outside the bus, secure the bus, and check around and underneath the bus.

When all students are accounted for, prepare to leave by:

Closing the door.

Engaging transmission.

Releasing parking brake.

Turning off alternating flashing red lights.

Checking all mirrors again.

Allowing congested traffic to disperse.

When it is safe, move the bus, and continue the route.

While performing unloading and crossing procedures, school bus drivers should remember that they are not traffic officers. Signals given to other motorists from inside the bus could be easily misunderstood. If a driver of a motor vehicle violates the red light law (wv code 17C-12-9) or acts in any way to jeopardize the safety of bus passengers, the operator should obtain the offenders license plate number and report the offense to a magistrate office.

Note. If you have missed a student's unloading stop, do not back up. Be sure to follow local procedures.

However, if backing is required at or near a school bus stop, the backing procedure should be completed prior to passenger discharge. If an adult or responsible person is available, use his/her assistance while backing.

Additional Procedures for Students That Must Cross the Roadway. You should understand what students should do when exiting a school bus and crossing the street in front of the bus. In addition, the school bus driver should understand that students might not always do what they are supposed to do.

If a student or students must cross the roadway, they should follow these procedures:

1. Walk approximately 10 feet away from the side of the school bus to a position where you can see them.

Walk to a location at least 10 feet in front of the right corner of the bumper, but still remaining away from the front of the school bus.

Stop at the right edge of the roadway. You should be able to see the student's feet.

When students reach the edge of the roadway, they should:

2. Stop and look in all directions, making sure the roadway is clear and is safe.

Check to see if the red flashing lights on the bus are still flashing.

Wait for your signal before crossing the roadway. Upon your signal, the students should:

Cross far enough in front of the school bus to be in your view.

3. **Stop at the left edge of the school bus.**

Look again for your signal to continue to cross the roadway

Look for traffic in both directions, making sure roadway is clear.

Proceed across the roadway, continuing to look in all directions.

Unloading off highway

If an off Highway stop has been established and at any time the circumstances change requiring a student to cross the Highway. The County Transportation Director must be notified prior to changing the stop. Then an approved and proper procedure can be made.

Approaching the Stop

You should never change the location of a bus stop without written approval from the County transportation Director.

You must use extreme caution when approaching a school bus stop. You are in a very demanding situation when entering these areas. It is critical that you understand and follow all state and local laws and regulations regarding approaching a school bus stop. This would involve the proper use of mirrors,

When approaching the stop, you should:
Approach cautiously at a slow rate of speed.

Look for pedestrians, traffic, or other objects before, during, and after coming to a stop.

Continuously check all mirrors.

Turn on right turn signal indicator about 100-300 feet or approximately 3-5 seconds before pulling over.

Continuously check mirrors to monitor the danger zones for students, traffic, and other objects.

Move a safe distances from the travel portion of the roadway

Bring school bus to a full stop.

Place transmission in Park, or if there is no Park shift point, in Neutral and set the parking brake at each stop.

Have the students remain seated until told to exit.
Check all mirrors.

Make a final check and when you have determined that it is safe, open the door and signal for students to unload.

Tell students to exit the bus and walk at least 10 feet away from the side of the bus to a position where the driver can plainly see all students.
Check all mirrors again. Make sure no students are around or returning to the bus.

Count the number of students while unloading to confirm the location of all students before pulling away from the stop.

If you cannot account for a student outside the bus, secure the bus, and check around and underneath the bus.

When all students are accounted for, prepare to leave by:

Closing the door.

Engaging transmission.

Releasing parking brake.

Turning on left turn signal.

Checking all mirrors again.

Allowing congested traffic to disperse.

When it is safe, move the bus, enter the traffic flow and continue the route.

Note. If you have missed a student's unloading stop, do not back up. Be sure to follow local Procedures.

Unloading Procedures at School

State and local laws and regulations regarding unloading students at schools, particularly in situations where such activities take place in the school parking lot or other location that is off the traveled roadway, are often different than unloading along the school bus route.

It is important that the school bus driver understands and obeys state and local laws and regulations.

The following procedures are general guidelines.

When unloading at the school you should follow these procedures:

Perform a safe stop at designated unloading areas and Secure the bus.

Have the students remain seated until told to exit. Position yourself to supervise unloading as required or recommended by your state or local regulations.

Have students exit in orderly fashion. Observe students as they step from bus to see that all move promptly away from the unloading area.

Walk through the bus and check for hiding/sleeping students and items left by students. **Check all mirrors.** Make certain no students are returning to the bus.

If you cannot account for a student outside the bus and the bus is secure, check around and underneath the bus.

When all students are accounted for, prepare to leave by:

Closing the door.

Fastening safety belt.

Engaging the transmission.

Releasing the parking brake.

Checking all Mirrors.

Special Dangers of Loading and Unloading

Dropped or Forgotten Objects. Always focus on students as they approach the bus and watch for any who disappear from sight.

Students may drop an object near the bus during loading and unloading. Stopping to pick up the object, or returning to pick up the object may cause the student to disappear from the driver's sight at a very dangerous moment.

Students should be told to leave any dropped object and move to a point of safety out of the danger zones and attempt to get the driver's attention to retrieve the object.

Handrail Hang-ups. Students have been injured or killed when clothing, accessories, or even parts of their body get caught in the handrail or door as they exited the bus.

You should closely observe all students exiting the bus to confirm that they are in a safe location. **Prior to moving the bus continue to monitor all mirrors**

Any problems or special situations should be reported immediately to your supervisor or school authorities.

GENERAL RULES FOR PASSENGER CONDUCT:

Certainly it cannot be denied that your passengers are affected by the school transportation program. Their experiences on the bus -- good and bad -- become apart of their education, such as the power of example the school bus operator exerts in molding attitudes and driving practices, as well as the operator's long-lasting influence on other aspects of the life of passengers during their growing and

developing years.

DESIRABLE PASSENGER CONDUCT:

Reference Section 10 policy 4373 student code of conduct

Reference Section 8 policy 4336 policy and procedures manual

Formal classroom behavior is required of passengers on a school bus.

Your control over passengers should be sufficient to assure that:

1. Passengers will enter and leave the bus at school loading stations and at highway bus stops in orderly fashion and in accordance with instructions. This requires passengers to proceed at all times:

- a. Without haste and without loitering.
- b. Without crowding and without pushing.
- c. With each passenger showing due regard for their own safety and the safety of others.

2. Passengers must, at all times:

- a. Refrain from shouting and other boisterous activity.
- b. Refrain from talking to you while the bus is in motion.
- c. Show due consideration for you and your problems.
- d. Refrain from infringing upon the rights of other passengers.

In general, any activity which worries or distracts you as the driver is objectionable. You need to keep your mind on the driving and on the traffic situation. If you are worried about the activity in the bus, you are likely to be distracted and cannot be a safe driver. Since drivers must make over 100 decisions per mile on a moderately traveled city street, driving is certainly a full-time job. Also, noise is considered a stress causing factor.

3. Passengers will remain seated while the bus is in motion.

- a. Each passenger must go directly to their seat upon entering the bus.
- b. Each passenger must remain seated until the bus has stopped.

4. Passengers will cross road in accordance with instructions and the provision of the state law.

5. Passengers will neither purposely nor carelessly destroy property.

Transportation equipment represents a large capital investment. Passengers can be expected to cooperate in its maintenance and preservation, in view of laws governing the financial responsibility of the parent/guardian.

- a. Orderly behavior in the bus, at all times, is essential. Rough-housing is not only hard on seats and interior finish, it also makes it difficult for you to give your attention to driving safely.

- b. Passengers should keep feet off the seats.
6. Passengers will not extend arms or other parts of body out through windows.
- a. It is important that no object protrude through an open window.
 - b. Passengers should leave windows alone. You should attend to ventilation.
7. Passengers will not throw objects about in the bus or out through windows. Waste paper and other refuse may not be scattered along the highway. Provision should be made inside for such material and it should be disposed of at end of trip. Shooting "paper wads" or other material in the bus is not permissible. Passengers will be instructed to take pride in a clean bus.
8. The following restrictions apply to the transportation of passengers on the bus with baggage, freight or merchandise of any kind.
- a. Books and other property should be properly held on laps. Any item too large to conveniently hold on lap or between feet is not permitted unless it is safely secured in a designated place.
 - b. Only property of passengers and/or the county board of education may be transported. County policy should be formulated to control the size and type of musical instrument permitted to be transported on county school buses, as well as how such shall be secured while in transit.
 - c. Highly flammable materials, firearms, explosive and all deadly or dangerous weapons including aerosol cans are prohibited. Aerosol cans such as windshield de-icer shall be stored in an outside storage box on the school bus.
 - d. The aisle shall be clear.
 - e. A clear and unobstructed access shall be at all times maintained to the emergency door and emergency windows.
9. Animals are not permitted on a school bus unless it is a certified service animal
10. None of these restrictions shall be construed as permitting objects or materials to be transported with passengers that interfere with the protection afforded by the padded bus seats.

In addition to items listed above, you should instruct and encourage passengers to:

1. Follow your instructions promptly and respectfully.
2. Be on time at the bus stop location.

3. Be on time at the school loading station.
4. Avoid playing or loitering on the highway when waiting for a bus which is late.
5. Follow correct safety procedures when walking on the highway to and from a bus stop. In some instances, passengers must meet a school bus some distance from the home driveway. Procedures for walking safely alongside the highway should be clear to passengers.
6. Other:

YOUR RESPONSIBILITY FOR DISCIPLINE:

All rules and regulations concerning passenger behavior should be well known and clearly understood by:

1. Bus drivers
2. Passengers
3. Parents

Teachers and drivers have direct responsibility for training and instructing transported passengers. Teachers, as well as bus operators, should supervise loading stations at the school grounds where students are boarding.

Copies of rules and regulations covering passenger behavior should be prepared by the administration and distributed to passengers and parents. The active cooperation of parents can be very helpful.

You must, of course, accept responsibility for supervising and controlling passengers out on the route. You cannot escape the fact that you are in charge. Establish and discuss acceptable discipline procedures as outlined in section 8 of Policy 4336 and section 10 of policy 4373.

NOTE ON STATE AND LOCAL REGULATIONS:

West Virginia Law Chapter 18A, Article 5, Section 1, West Virginia School Transportation Regulations authorizes the bus operator to exercise authority over the passenger, in the place of the parent, while the passenger is on the bus.

PASSENGER MANAGEMENT:

As a good bus driver, you should always have a general knowledge of your "load" or cargo. Your primary responsibility is to transport the passengers to their destination and discharge them safely. But, you must know something of the behavior patterns of your riders and know a great deal about their reactions in order to safely pick up and deliver your load. Remember the following:

1. Each passenger is an individual and therefore different, but do not allow special privileges to any passenger, in order to avoid playing favorites or having a double standard. School bus operators can create a large percentage of their own on-board discipline problems. An operator should avoid favoritism.

2. Remember that all eyes are on you while you are driving the bus. Your words and actions have tremendous influence on the passengers riding on your bus. Any indication of anger or desperation on the part of the school bus operator shows the passengers are in control of the situation, as the bus operator is clearly out of control.

3. Speak quietly, clearly, with confidence and firmness when talking to the passengers on your bus.

4. Be liberal in your praise of the group when they accept responsibility well and have a general pattern of good behavior. Be tactful and cautious about singling out individual passengers for praise before the group.

5. Do not try to handle discipline cases yourself. Refer all such cases to your supervisor or the school principal. Give all the facts and be sure the entire problem is understood. Usually the passenger who causes the problems on the bus is also causing problems in the classroom. The school administrator has the whole picture of the passenger while you, as a bus operator, know only their bus behavior.

6. You must learn to distinguish between "insignificant" events and "potential problems" such as but not limited to bullying. In trying to decide about the potential for a situation to develop into a serious problem, try carrying your thinking to a logical conclusion and decide on the basis of the seriousness of far-reaching effects or results of the behavior before making a decision to take action on the manner and degree with which you should act on this behavior. Any misbehavior incident that has the potential for a serious problem should be written up on the proper report form and submitted the school principal. Include all pertinent details and keep a copy for your record.

7. Never give an order or issue an ultimatum that you do not fully intend, or have the authority, to enforce. Giving such an order might result in a liability suit involving you and/or your employer. Rather, suggest an action which the passenger can successfully obey. Make a request that will stimulate positive action, not check it. State it positively, say "Do this" rather than "Don't do that".

8. Have a valid reason for what you ask. Give the passenger time to react to your request.

You must be careful in dealing with passengers to never threaten them with violence, shout or show excitement or evidence of irritation. Carry out your

instructions to the passengers with no evidence of favoritism. If you overlook violations of conduct by one passenger, you'll lose the respect of the other passengers. Strike a happy medium by not being too lenient or too harsh, as both extremes are equally bad for the morale of the passengers on the bus. Your attitude should be friendly, cheerful and businesslike.

Strive to build morale and cooperation in your bus with the help of the passengers. This can be done by being friendly, courteous and helpful. In the course of time, the passenger morale will be a great source of help in controlling passengers who are the worst offenders. When passengers discover that improper conduct is not acceptable to the group, offenders will hesitate to do things which cause them to lose "face" with the group. One of the best approaches to building passenger morale is to give the passengers a chance to participate in drafting and selecting the rules and procedures for maximum safety on the school bus. Practice all approaches which create better driver-passenger relationships.

Some drivers have difficulty in dealing with young people, so they become very authoritarian. This authoritarian approach is really intimidation. Your age, status and position can be intimidating; but this usually does not work with young people very long. Sooner or later they realize they can control you through mere numbers alone. If they want to harass you, even the young ones, they can find ways to do it.

In this section of this unit we are going to be concerned with passenger management. Knowing how to manage or get along with your passengers will, to a large degree, be determined by how well you understand youngsters; what they are like, why they are like that and what their desires and needs are.

Merely understanding youngsters, however, is not sufficient. How you relate to youngsters is equally important. Establishing this relationship is done through communications, both verbal and non-verbal; in what you say, how you say it and what you do.

The type and quality of communication you have with your passengers will, to a large extent, determine how well your passengers behave. It will also, to a large extent, determine how safe the bus trips are and how happy you will be in your chosen occupation.

You will also be studying the highlights of the following topics as they relate to passenger management:

- Nature of young people.
- Stages of human development.
- Motivators of behavior: desires, fears, drives.
- Characteristics of people.
- Roadblocks to effective communication.
- Promoting positive passenger behavior.
- Responsibilities of passenger management team.

Young people are not small adults. Young people are young people. Everyone goes through a growth process and various developmental stages. Passengers in your bus will be at different stages of this process. Consequently, they cannot be expected to be like or act like adults. Nature of young people is rapid growth in the following:

- Socially
- Emotionally
- Physically
- Intellectually
- Impulsive
- Physical
- Intuitive
- Independent/Dependent

There are certain developmental stages in life which everyone will go through.

PRE-SCHOOL STUDENTS

- Emotional attachment - parents, siblings, teachers, bus drivers etc.
- Feelings are open to new experiences.
- Unpredictable actions.
- Spontaneous actions

ELEMENTARY STUDENTS

- Peer influences
- Overly helpful
- Unpredictable action

MIDDLE/JR. HIGH STUDENTS

- Peer influences
- Unpredictable behavior
- Testing independence
- Emotionally sensitive

HIGH SCHOOL STUDENTS

- Level of Maturity varies greatly
- Emotionally sensitive

Young people like everyone else have certain desires, fears and drives that control their behavior.

Behavior controls - Desires:

1. Fair treatment - consistent
2. Admiration - parents, peers
3. Win
4. Acceptability
5. Respect
6. Courtesy

Behavior controls - Fears:

1. Rejection
2. Exclusion
3. Ridicule
4. Physical abuse

Behavior controls - Drives:

1. Peer acceptance
2. Viewed as leader
3. Fun
4. Physical stimulation
5. Social exploration
6. Security

Having a basic understanding of people will help you communicate effectively with your passengers. Remember:

1. Everyone is special.
2. Behavior is caused.
3. People are not owned they are individuals.
4. People have feelings.
5. People can reason.
6. Problems are opportunities.
7. All things are not always equal but should be fair.
8. Recognition as a human being is expected.

For effective communications with your passengers messages should be positive rather than negative. For example:

DO THIS	NOT THIS
Be Direct	Be Sarcastic
Positive Reinforcement	Criticize
Be consistent and courteous	Threaten
Provide solutions and advice	Blame

You should strive to exhibit those behaviors which will help develop positive behaviors in your passengers.

Positive driver actions:

1. In control - confident.
2. Helping person - human.
3. Friendly - smile.
4. Listen and look for problem causes.
5. Provide options.
6. Define limits - be firm.

It is a recommendation of the West Virginia Department of Education that the school

bus drivers must avail themselves of the disciplinary procedure provided them by their supervisor. The bus driver has no authority to slap, spank or abuse any passenger. Passengers who break the rules should be returned to their homes or to their schools before any disciplinary action is taken. (Check with bus supervisor on local school district policy on reporting behavior problems.)

You are not the only person responsible for passenger conduct on the bus. Other members of the transportation team have equally important responsibilities in assisting and supporting you while the passengers are in your custody. Passenger management responsibilities:

Driver - You have the immediate responsibility because the passengers are under your direct supervision while being transported. You can do much in your relationships with passengers to provide an environment which will minimize passenger disturbances. If disturbances do break out, you do not need to become judge and jury in each occurrence. Your responsibility is to report it to the appropriate administrator. You should be careful not to overstep your legal authority.

Transportation supervisor -- The transportation supervisor's responsibility is to provide helpful support and guidance to you in handling passenger management problems.

Administrator -- The school administrator's responsibility is to follow through and take appropriate action on disciplinary problems reported by you. Administrative support in this regard is very important.

Teachers -- A passenger's teacher can play an important role by assisting you in better understanding the causes of problems a passenger might be having. This understanding will help in determining an appropriate solution to the problem.

Parents -- Parents are legally responsible for the behavior of their children. Any behavior problem must ultimately be solved through parent cooperation and assistance. The parent working with the school administrator must assure the responsible behavior of their children.

Students -- The student's responsibility is to follow the rules and regulations set forth by the state and local school district. Assisting you through proper behavior will help assure a safe and efficient bus trip.

Summary of topics reviewed:

- Nature of young people.
- States of human development.
- Motivators of behavior: desires, fears, drives.
- Characteristics of people.
- Roadblocks to effective communication.
- Promoting positive passenger behavior.

RESPONSIBILITIES OF PASSENGER MANAGEMENT TEAM:

Your role in passenger management is an extremely important one. How you relate to each and every passenger on your bus will, to a large extent, determine how safe and enjoyable the bus trip will be.

In addition, you are a part of the school system and educational process. You should view your role as an opportunity to be a positive force in the lives of young people who are growing rapidly.

WHEN YOU HAVE DISCIPLINE PROBLEMS:

You must maintain order on your bus. Keep in mind the following simple rules:

1. Stop the bus if the behavior problem is a serious one. If it is a minor infraction, a word of warning over the speaker system (if available) or a remark directed to the offender may be enough. If the infraction is more serious in nature, stop the bus. The fact that you have taken this action makes the passengers realize the situation is one that is out of the ordinary. Do not stop and lecture passengers for each and every little incident.
2. Stand up and speak to the offenders in a courteous manner but in a firm voice. Don't show anger, but all passengers must realize you "mean business." Be firm, but friendly.
3. If a change in seating is needed, move one or more passengers to a seat near the driver so you can more closely observe the behavior, in order to control unnecessary distractions and to help better provide for the overall safety and welfare of all passengers.
4. You have no legal right to put a passenger off the bus except at their regular bus stop or at the school. If an emergency situation develops in which the safety and welfare of passengers is in jeopardy and you feel very drastic action is needed, stop the bus and contact the proper school authorities and other authorities. Until you can obtain assistance from a proper school administrator, and/or a law enforcement officer, it will be necessary to use your judgment to control the situation and provide for the safety of any and all the passengers on your bus.

REPORTING DISCIPLINE PROBLEMS:

You are responsible for the conduct of passengers on your bus, but you must have the backing of the school administration to effectively discharge this responsibility. In cases of continued misconduct, continue to report the instances of passenger misconduct, in writing, to the supervisor and principal. Refer to Section 7 of Policy 4336.

In many school systems, the first action taken is reprimand. If the passenger's behavior does not improve, the parents may be notified and the passenger may be denied the right to ride the bus until agreement is reached in a conference or may be transferred to another bus. This is usually done after all other measures have failed to improve the situation.

SUSPECTED CHILD NEGLECT OR ABUSE

As a school bus driver you have the obligation to report to the proper authorities any suspected child neglect or abuse.

PROPER PROCEDURES:

1. Always be courteous to your passengers.
2. Always control your temper.
3. Act the part of a person in a responsible position, conscious of your important job.
4. Do everything possible to inform passengers that they themselves have important responsibilities in assuring group safety.
5. Maintain close contact with principals and secure their cooperation.
6. Spot the few troublemakers and ask the principal what methods to employ if you are uncertain.
7. Seat any troublemakers near you, within your vision.
8. Be firm, but kind.
9. Don't be too familiar with the passengers.
10. Don't be too lenient at first.
11. Don't make "wisecracks".
12. Don't threaten.
13. Don't shout.
14. Don't argue.
15. Don't use physical force; observe the policy of "hands off".
16. Don't create issues that have to be settled later.
17. Don't discipline passengers while the bus is in motion.
18. Never assume that everything is all right.
19. Avoid general statement to the whole bus load of passengers when restoring order.
20. Don't question publicly the decision of the school board; however, feel free to make suggestions for improvement to the proper authority.

SECTION H

FIELD TRIPS

OVERVIEW

FIELD TRIP IS A SPECIAL AND EXCITING TIME

FIELD TRIP RESPONSIBILITIES

SPECIAL INSTRUCTIONS

OVERVIEW:

As a driver, you may be called upon to drive special trips with various groups. These may occur between regular home-to-school route, late afternoon, evenings or on weekends. Driving field trips can present problems that are different from regular home-to-school routes. Some of the issues are:

1. Being assigned to drive a bus other than the one you usually drive.
2. Transporting different age groups than you normally do.
3. Driving long periods at one time.
4. Driving roadways and freeways and driving in and out of areas that you are not familiar with.
5. Driving at night.
6. Driving in all kinds of weather and road conditions.
7. Transporting extra equipment.
8. Working with chaperones and/or a teacher.
9. Adjusting to the activities and the spirit of the trip.
10. Handling of emergencies that may occur away from home.
11. Overnight field trips.
12. Passengers who aren't familiar with safe bus riding rules and practices.
13. Emergency evacuation demonstration prior to every field trip.

This is a list of a few areas that must be considered when you are assigned to a field trip.

FIELD TRIP IS A SPECIAL AND EXCITING TIME:

The field trip or activity trip is a special and exciting time for all concerned. It must also be a safe trip.

Be sure you have a special trip authorization form including on it:

1. Destination and date.
2. Nature and purpose of trip.
3. Departure and expected return times.
4. Names of passengers to be transported.
5. Rest stops and overnight arrangements, if any.
6. Appropriate documentation for authorization of the trip.

The best way to insure a safe and happy trip is through pre-planning.

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. 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 they are

further from getting assistance. Drivers should have available several phone numbers should they need help during the trip. These would include the school office, your transportation supervisor, the transportation supervisor at your destination and the school bus maintenance numbers from each county along your way. Phone numbers of where these individuals can be reached in the evening as well as their normal office numbers should be obtained.

Some passengers may have a special medical problem which should be known before the trip begins. Only in this way can any medical problem be planned for in advance.

The driver is in charge of the bus and all passengers on board.

Chaperones shall assist the bus driver with the needs of the student and shall be seated as best to serve the needs of the student and as approved by the driver.

A number of different types of groups participate in field or activity trips. Each group may have one or more different types of group leaders. Typical groups and group leaders would include:

1. team/coach
2. class/teacher
3. group/chaperone

FIELD TRIP RESPONSIBILITIES:

On field and activity trips responsibilities are shared between the driver and the group leader and or the chaperone.

Driver responsibilities include, but are not limited to:

1. Obeying all safety regulations.
2. Maintaining passenger control.
3. Control of emergency situations.
4. Maintaining safe vehicle condition.
5. Selecting stops:
 - a. rest stops
 - b. food stops
 - c. fuel stops
6. Head counts

Responsibilities of group leaders and chaperones include, but are not limited to:

1. Provide a list of all persons on trip.
2. Relaying trip plans and safety precautions.
3. Providing passenger information.
4. Maintaining passenger control.

5. Supervision at stops.
6. Head counts.
7. Passenger instructions.
8. Assembly of passengers.

When the passengers are on board and seating arrangements have been finished, you should do the following:

1. Briefly discuss with your passengers basic bus rules and noise levels you can live with; also window control.
2. Point out emergency procedures:
 - a. location and operation of emergency releases for front door, emergency windows, rear door and roof hatches if so equipped.
 - b. Location of fire extinguisher and first aid kit.

Some long field trips can be very tiring for you as well as our passengers. The following should be considered.

1. Get plenty of rest before the trip.
2. You may want to rest during waiting time before the trip home.
3. Watch your eating habits while on the trip. (Large have meals may cause drowsiness, especially on the return trip.)

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 passenger pick-up and the exact time of departure for the event.

If you are unfamiliar with the bus being used on the trip you should check to be sure the bus is cleaned and serviced. Perform a full pre-trip inspection. Familiarize yourself with the instruments and controls. If the bus is a different type than you normally drive, take a test ride, as long as is necessary, to familiarize yourself with the vehicle.

When loading for special trips, check to see that only authorized passengers board the bus.

Band instruments, luggage or other large items should be prohibited in the driver or passenger compartment. Loose luggage or equipment could cause injury or block passages in the event of a collision or sudden maneuver. **IN NO EVENT SHALL AISLES,**

DOORS, STEPS OR EMERGENCY EXITS BE BLOCKED.

Special stops along the way should be planned in advance such as, but not limited to food, fuel and comfort. It is better if they can all be accomplished in one stop rather than separate stops for each. When estimating travel time, time estimates for these stops will need 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 a consideration. If a toll road or bridge is used the driver will need sufficient money to pay these tolls. Motor fuels and their purchase is another consideration.

REFERENCE NCTS STANDARDS FOR ACTIVITY AND FIELD TRIPS – PAGE 314 SPECIAL INSTRUCTIONS:

A final consideration is any special instructions. Is there anything else you need to know to have a safe and happy trip? Drivers should check with the Transportation supervisor and the person in charge of the trip for these types of special conditions or situations.

When destination has been reached make sure all passengers know which bus they are to board for the return trip and at what time.

In closing this subject, keep in mind when you are on a field trip, you represent your county and your school and you should conduct yourself accordingly.

School bus accident reports indicate that many accidents occur on field trips, and the leading causes are as follows:

1. Drivers unfamiliar with the bus.
2. Drivers unfamiliar with the route being traveled.
3. Misuse of braking system descending grades.
4. Driver fatigue.
5. Faulty equipment.

SECTION I

TRANSPORTING STUDENTS WITH DISABILITIES AND SPECIAL HEALTH NEEDS

TABLE OF CONTENTS

OBJECTIVES

OVERVIEW

YOUR RESPONSIBILITIES

COMMONLY USED SPECIAL EDUCATION TERMS

GUIDELINES FOR HANDLING BEHAVIOR PATTERNS

BEHAVIOR PATTERNS

STUDENTS WITH DISABILITIES AND SPECIAL HEALTH NEEDS

MENTALLY IMPAIRED STUDENTS

LOADING AND UNLOADING

ON THE ROAD

GETTING THE FACTS

EMERGENCIES

PARENT RESPONSIBILITIES

STATE AND LOCAL POLICIES

RESPONSIBILITIES OF PUBLIC AGENCY

RESPONSIBILITIES FOR BUS OPERATORS AND AIDES

RESPONSIBILITIES OF PARENTS

OBJECTIVES

By the end of this unit, the students should be able to:

1. Identify the physical characteristics and behavioral tendencies of students with disabilities and special health care needs.
2. Describe special loading/unloading procedures.
3. Describe special methods of controlling students with disabilities.
4. State ways of communicating with parents of children with disabilities.
5. The use and importance of the medical information card.
6. Responsibilities for bus operators and bus aides.

OVERVIEW:

Attitude. The success of programs of students with disabilities and special health care needs depends upon the people who have daily contact with the children. Such people should possess characteristics which are different in kind and degree from the average. They should have extra patience, mental alertness, flexibility, resourcefulness, enthusiasm, emotional stability, personal warmth, friendliness,

understanding and sympathy. As a bus operator, you should be able to develop and maintain rapport with children and be able to exercise mature judgment in relation to both the area of students with disabilities and special health care needs and the responsibilities of driving.

You should be aware of and be willing to conform to the objectives of the child's therapeutic needs. You should be able to accept their problems as you would accept any child. You should treat these children as you would want your own children to be treated.

The daily bus ride to school can be an important part of a child's progress toward independence. The child will learn how to leave his/her home to meet the bus, how to cross a street and how to behave on the bus. You will explain the bus rules to them and the child will learn to obey them. You play an important role in determining behavior patterns of children. In fact, you can start the child's day off right or wrong. The bus ride to and from school can be a pleasant experience which a child anticipates eagerly or it can become a dreaded experience. You should be thoughtful and careful about such routine matters as assigning a seat or seat mate, the presentation and purpose of a seatbelt and about using discipline.

Remember, however, that your primary purpose is to take children to and from school safely and dependably. Therefore, while you make allowances for specific problems of students with disabilities and special health care needs, a child's social adjustment will be of less importance than getting to school on time and the safety of the other children, the operator and the bus.

YOUR RESPONSIBILITIES:

Qualifications. Besides operator qualifications regarding age, health, past experience, knowledge of vehicles and maintenance, safe driving practices, etc., you should be able to operate specially equipped or adapted vehicles. You will be trained in the use of wheelchairs, (lifts and anchorages) and CSR (child safety restraint system). We will discuss the use of the use of ambulatory devices and equipment such as: braces, crutches, walkers, oxygen.

Information. You should be aware of the problems of each of the children who ride your bus; with the medical and physical aspects of disabilities of each child. You should, through communication with school personnel and parents, know when a child is on medication (refer to policy 2422.8 **Medical Administration Policy**) and the effects of that medication. This will help you to determine when a child is behaving abnormally for his/her condition. Administration of medication is not a part of first aid training and school bus drivers are prohibited from administering medication under

the Medical Administration Policy.

You have the responsibility of reporting to the school authorities or to the parent specific incidents, attitudes, etc., which may be significant in the treatment of the child. You should know what special steps to take in case of a traffic accident or breakdown because the comfort and emotional well-being of these children are your responsibility while they are in your charge. You may spend much time learning how to care for each child under the many circumstances that might occur while the children are on your bus.

FOR COMMONLY USED SPECIAL EDUCATION TERMS:

Refer to National Transportation Specifications and Procedures, Appendix E, Characteristics of Disabilities as defined by IDEA.

GUIDELINES FOR HANDLING BEHAVIOR PATTERNS:

Behavior patterns of each child with any of these conditions are individual problems and should be understood. Each operator must treat each child separately. For example, don't give a general direction to the entire bus load of children. You should not assume everyone would understand this direction.

Behavior patterns of these children for any given day or hour of the day can be caused or changed by the actions of many people:

- The school bus operator
- Parents or members of the family
- Teacher or aide
- Other bus passengers

When you communicate with a child, take into consideration, regardless of the age and size of the youngster, his or her attention span. With some children, this can be rather short. Be consistent when you communicate with a child.

A student may behave differently from day to day because of medication. Many students are extremely hyperactive and use their excess energy to get attention from you or from someone else. It is difficult to give guidelines for handling all situations. You should consult with parents, teacher and supervisor. It can also be of help to move the child to another seat away from a student who may be causing problems.

BEHAVIOR PATTERNS:

Usually, your students with disabilities and special health care needs will fall into one of four categories:

- Physically impaired
- Mentally impaired
- Behavior disordered
- Learning disabled

The children with these different types of handicaps may act quite differently. So, you should learn to recognize these differences and learn how to handle them.

The following descriptions of behavior patterns are average and, of course, there will be many variations and degrees which are not covered here.

STUDENTS WITH PHYSICAL DISABILITIES:

Deaf and Hearing Impaired.

A deaf child learns to respond to lip movement, facial expression and head movement, as well as to gestures, signs and finger spelling.

Blind and Visually Impaired.

The blind and visually impaired child's knowledge is gained primarily through hearing and touch. The ease with which the blind child can move about, find objects and places and orient themselves to new situations is crucial.

Speech Impaired.

Orthopedic Impaired

May require special mobility aides.

MENTALLY IMPAIRED STUDENTS:

Their height, weight and motor coordination are may be close to the average student of the same age but their social and mental skills are underdeveloped.

The Behavior Disordered Child. These children are defined as neurologically and/or emotionally disabled. They often have behavior problems based on inner tensions which create anxiety, frustrations, fears and impulsive behavior; social maladjustment, including incorrigibility, truancy, pre-delinquency and delinquency.

ADAPTIVE EQUIPMENT:

All decisions regarding medical equipment in the school bus should be made in accordance with state laws and regulations.

It is necessary for transportation staff to be familiar with the design and operating procedures for this special equipment as well as know how to conduct equipment inspection and make simple field adjustments. Transportation personnel shall be trained in the use of the following systems as recommended by their manufacturer:

Power lift -. Knowledge of automatic and manual operation of power lifts is

required. No person shall be allowed to stand on the lift platform during operation of the lift. All persons requiring the use of the lift shall be seated and secured properly in a wheelchair. (Refer to National school transportation specifications and procedures

Sec. Transportation For Students with Disabilities and special health care needs - P.

58)

Emergency Fire Blanket - all lift equipped buses must be equipped with an emergency fire blanket.

Wheel Chair Securement Systems

Emergency Escape Exits

Electronic Voice Communication - Each school bus that transports Individuals with disabilities shall have a two-way communication system capable of providing communication with the operational base, or at least local 911 operators where technologically feasible.

CRS - Adaptive and assistive devices used to support and secure students, including mobile seating devices, child safety restraint systems, safety vests, wheelchair tie down/occupant restraint systems, assistive technology devices, trays and securement hardware, including their storage and securement.

Medical Support Equipment

This may include respiratory devices, such as oxygen bottles which should be no larger than 22 cubic feet for liquid oxygen and 38 cubic feet for compressed gas) or ventilators. Tanks and valves should be located and positioned to protect them from direct sunlight, bus heater vents or other heat sources. Other equipment may include intravenous and fluid drainage apparatus.

All portable equipment and special accessory items, including the equipment listed above, shall be secured at the mounting location to withstand a pulling force of five times the weight of the item or shall be retained in a enclosed, latched compartment. The compartment shall be capable of withstanding forces applied to its interior equal to five times the weight of its contents with out failure of box=s integrity and securement to the bus. EXCEPTION - If these specifications provide specific requirements for a particular type of equipment - e.g.; wheelchairs, the specific specification shall prevail.

Service Animals

Certified service animals may be transported as required.

Medicine Transportation

Must be secured, attended and available as necessary. Medications are only to be

administered by persons authorized under WVDE Policy 2422.8. School bus operators are not included as person so authorized but must be knowledgeable in regard to the students' needs. However, aides are included as those authorized to administer medicine when a properly trained by the county medical professionals. In case of a life or death emergency all bus drivers as well as any other persons are covered by the good Samaritan act. Refer to WV School Code 18-5-22.

The aide shall be positioned on the bus in such a place as to best benefit the needs of the students served.

All adaptive equipment must be properly stored on the bus when not used by students.

LOADING AND UNLOADING:

Most transportation systems, when possible, load and unload students with disabilities and special health care needs youngsters in front of each child's home due to the fact that the child cannot be left unattended.

These children sometimes need assistance to board the bus and must be helped during this process. Eye-to-eye contact with some children is a must. Remember, care and protection are two things which the parents and children expect from you.

The transportation team is responsible for loading, unloading and properly securing the student. At no time should this duty be delegated to the parent or other person.

If an aide is assigned to the bus:
Be sure each person knows their role; in the case of misunderstanding, don't argue. Carry on any discussion out of the student's presence.
Use a team effort when carrying or guiding the student onto the bus.

When the use of restraints is required, check to see that they are securely fastened and the aide is correctly seated before putting the bus into motion again.

When specially equipped buses are used to accommodate wheelchairs, etc., with the use of a lift, it is the responsibility of the transportation team to guide the chair onto the bus and secure it in place inside the bus.

Check that the lift door has been securely fastened into position after the student has entered the bus.

Unloading on the school grounds:

Assist each student off the bus into the charge of a teacher or other school attendant.

Insure that all passengers and belongings are taken off the bus.

Unloading at home of the passenger:

Carry or guide each student off the bus into the charge of a parent or other authorized responsible person.

Check that all belongings of each student are taken off the bus.

Report tactfully to the parent any observations which may be appropriate, whether medical or behavioral observations.

If an authorized person is not at home to receive the student, keep him/her on the bus; immediately contact the proper transportation administrator for instruction.

ON THE ROAD:

1. The bus driver and aide shall watch that all passengers remain safely seated.
2. If any student shows symptoms of illness that requires immediate attention, pull bus as far to the right of the road as possible and stop; activate four-way hazard lamps.
3. If a voice communication is available notify the proper authorities; otherwise assign the aide or passing motorist to perform that task.

CONFIDENTIALITY:

Information provided to transportation staff to assist in the orderly and safe transportation of a student including disabling condition, medical/health issues, or other personal characteristics or information, is protected by the provisions of the Family Educational Rights and Privacy Act, and transportation staff shall be trained regarding confidentiality requirements.

GETTING THE FACTS:

You must have pertinent information about each of your passengers and be a special observer of behavior on your vehicle. You are often the source of information which is vitally important to your supervisor, the student's teacher and parents. Secure pertinent information about and identification picture of each student you transport. Make a confidential card file form to be kept on your bus and in your

supervisor's office. A 3"x5" card is suggested. *A form for this purpose is available in the National School Transportation Specifications and Procedures - page 350.*

EMERGENCIES:

Report circumstances of illness or injury to your supervisor immediately.

Planning for emergencies should include:

1. An "in-bus" list of telephone numbers for assistance.
2. First aid equipment including a fire blanket.
3. Information on each child with parent's and physician's telephone numbers.

A plan should be worked out between the parents and the school or operator to deal with emergencies that may arise. For example:

1. What is to be done if the parents are not at home to receive the child at the end of the day?
2. What is to be done if the bus, for some reason, cannot reach the home? One such reason could be due to weather conditions.
3. Have a back up plan. Ex: A second home, such as a friend or relative, where the child can be taken in such emergencies.
4. What is to be done if the child needs medical attention while being transported?

STATE AND LOCAL POLICIES:

As a partner in the transportation system, you must take an active role in encouraging a system which is designed to aid you in meeting your students needs by:

Seeking information as to what part you are to take in communicating needs to parents, teacher, supervisor and students.

The following rules and regulations are applicable to bus operators and aides, but do not cover all circumstances which exist for various situations. They do serve as guidelines for the operation of special education transportation programs. The bus operator and aide shall:

1. Obey all regular school bus operational regulations (unless exceptions are noted), state and local policies and traffic laws.

2. Maintain and keep current transportation confidential emergency cards and other required written information. This information is to be maintained in accordance with the Family Education and Privacy Act and state and local regulations.

3. Withhold from a student any type of food (candy, gum, soft drink, etc.) unless required as part of the students' medical necessity.

4. Exercise patience, understanding and mature judgment.

5. Communicate effectively with parents and school staff.

6. Utilize and safely operate the special equipment needed for each student's seating, loading and unloading.

7. Know the safest and most direct route to a hospital or recognized medical center.

8. Arrange the seating of students, where possible, to prevent emotional or physical disturbances (but allow "normal" interaction between students). The special education teacher for these students may be of great assistance in these situations.

9. Explain bus rules to students and enforce them, remembering to:

- a. Be firm -- but gentle.
- b. Be patient -- but persistent.
- c. Always be consistent.

10. Maintain discipline and report to the proper school authorities and/or parents any unusual episodes, attitudes, etc., immediately and in detail, because they may have medical implications.

11. Be willing to learn how to care for each student under the many circumstances that might occur while the students are on the bus. Eye contact usually reveals problems that may occur.

12. Know the appropriate procedures to take in case of a traffic accident or breakdown as they relate to the needs of the students.

13. Maintain the bus schedule for pick-up and delivering of students as closely as safety will permit.

14. Adhere to an established route unless there is an emergency. Contact the proper school administrator when such deviations are necessary.

15. Make sure that a student is not left unattended on the bus.

16. Record when each student is behaving abnormally for their condition and advise the appropriate officials accordingly.

17. Be mentally alert and follow the plan for emergency indicated on the student information card when problems or abnormal reactions occur.

18. Assist each student in meeting therapeutic needs as indicated by appropriate school personnel such as learning to get on and off without assistance.

19. In addition to the above requests, the special education aide shall:

a. Assist in the loading and unloading.

b. Maintain control of students while on the bus.

c. Take care of any special needs of the students while they are on the bus and while they are being loaded and unloaded.

d. Assist the bus driver in times of need and during any emergency.

RESPONSIBILITIES OF THE SCHOOL BUS OPERATOR AND AIDE FOR TRANSPORTING STUDENTS WITH DISABILITIES:

1. The operator of a bus transporting students with disabilities shall assure that students aboard the bus are supervised at all times.

2. The aide and/or bus operator shall assist such students on and off the bus at the designated bus stop.

3. The bus operator and/or aide shall assure that the protective safety devices are utilized.

4. The bus operator and aide(s) shall receive training regarding the needs of students with disabilities.

5. The bus operator and aide shall have available to them in the vehicle confidential emergency data including:

a. student's name and address;

b. parent's name, address, home and work phone numbers;

c. emergency health care information; and

- d. provisions for the student's safety when and if the student is unable to be met at the designated bus stop.

The IDEA Amendments of 1997 require that all personnel serving children with disabilities be knowledgeable and trained about the children being served. This includes transportation administrative personnel, drivers, transportation safety assistants, and substitute personnel.

Positive, safe, and efficient transportation experiences and practices will assist a school system's commitment to promoting independence and educational opportunities for special needs students. This chapter outlines recommendations for providing quality professional training for administrative personnel, drivers, transportation safety assistants, and substitute personnel responsible for transporting and chaperoning special needs students. Prior to transporting students, it is recommended that at least the driver or the transportation safety assistant has completed training and has experiences in special needs transportation. Training should be documented, monitored, and ongoing as needed.

When developing and conducting training for transportation personnel, it is recommended that the following areas be included to ensure best practice. Training areas should be modified and expanded to meet the needs of the school district and individual students as needs arise and change. Resources within the school district and community that may be available to assist with training include special education teachers, school physical therapists, vendors of specialized equipment (such as wheelchair securement systems), nurses, behavior specialists, transportation and exceptional children's administrators.

8.1 Personnel Training

Training Areas	Resources for Training
Animal Companions	Orientation and Mobility Specialist, Service Animal Trainer, EC Administrator, Transportation Administrator
Disability Characteristics and Medical Conditions Medically Fragile children Medication Transport DNR	EC Administrators, OT, PT, SLP, RN Disabilities and Health Conditions
Universal Precautions and Communicable Diseases First Aid Blood Born Pathogens	RN, Local Health Department, First Responders Professional Video Tapes
Communication Skills Student Communication Effective Communication Customer Service	EC Teacher, SLP, EC Administrator
Confidentiality Requirements	School System Human Resource Department Transportation Administrators EC Administrators, School Administrators

Discipline Sexual Harassment Violence Supervision of Students	BED Specialist, BED Teacher, EC Administrators, School Administrators Communication and Collaboration
Emergency Information Management	Transportation Administrators

Training Areas	Resources for Training
Equipment Handling Bus Equipment Student's personal equipment Securement Techniques Wheelchairs Child Safety Restraint Systems Bus Driver Training	Transportation Personnel, Manufacturer's Reps PT, SLP, OT, Equipment Suppliers, RN Division of Motor Vehicles Specialized Equipment: Descriptions and Procedures Certified Child Passenger Safety Technician
Evacuation Procedures Body Mechanics and Lifting Techniques Implementing Individualized Plans Safe Transfer and Lifting Techniques	Transportation Personnel, EMT, RN, PT, EC Teachers Emergency Evacuation Procedures
Federal and State Regulations, Local Policies and Procedures IEPs IFSP	Transportation Administrators EC Administrators
Inclement Weather Procedures	Transportation Personnel
Laws Individuals with Disabilities Education Act, 1997 Individualized Education Plans Individual Family Service Plans Section 504 of the Rehabilitation Act	EC Administrators Laws, Policies, and Regulations
Loading and Unloading Procedures Students using Wheelchairs/Assistive Devices Preschoolers Students who walk but require supervision and assistance	Transportation Personnel, PT Specialized Equipment: Descriptions and Procedures
Pick-up and Drop-off Locations	Transportation Personnel
Radio Procedures	Transportation Personnel
Record Keeping	Transportation Personnel
Report Writing	Transportation Personnel