UNIT H - CRASH AND EMERGENCY PROCEDURES

UNIT H
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INTRODUCTION

Professional drivers don't depend on their skills to get them out of potentially dangerous situations. They depend on their judgment to avoid these situations. It's a lot easier to avoid of potentially dangerous situations than to get out of them. This was the focus in Units F and G. However, if you are involved in a crash or emergency situation, you will need to take certain emergency actions.

This unit is divided into two major sections. The first describes emergency driving techniques you can use as a last effort to avoid crashes. The second covers crash and emergency procedures, except for First Aid, which is covered in Unit I (Student Emergencies).

EMERGENCY DRIVING TECHNIQUES

As you learned in previous units, driving factors such as light, weather, road, traffic, vehicle, and drivers are not usually all adverse at the same time; they come at the driver in groups. Weather conditions affect the amount of light available and the condition of the road. Light, especially too much light, can irritate a driver, and traffic conditions can do the same. Weather can affect traffic, slowing it down and making it more congested. Weather can affect vehicles as well, with the possibility of overheating in summer heat or having brittle parts break in the cold of winter. The school bus driver who adjusts his speed to adverse conditions, inspects the bus, keeps his bus in top mechanical condition, and remains alert and ready, has a better chance of remaining safe.

As a safe driver, you will be able to avoid most potentially dangerous situations through good driving habits, use of safety equipment, and proper observation. However, you may find yourself confronted with one of these five emergency driving conditions:

- Skid;
- Tire blowout;
- Loss of brakes;
- Sudden loss of visibility; or
- Objects, pedestrians and obstructions in the path of the bus.

Under these conditions, you must know what emergency driving techniques to use. Your responses must become automatic – you will not have much time to think about what you should do. The procedures in this unit are "last ditch" measures to prevent a crash, if at all possible.

SKID CONTROL AND RECOVERY

Many factors can cause a school bus to go into a skid. During a skid, the tires lose proper traction with the road surface. Normal means of controlling the bus, including steering, braking and accelerating, won't work as usual — you must learn specific anti-skid techniques. Therefore, 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 when tires fail from under-inflation or from a blowout;
- Front wheel skids resulting from faulty brakes, slippery road surfaces or driving too fast for conditions;
- Rear wheel skids resulting from faulty brakes, driving too fast, accelerating too quickly on curves, or rough or slippery surfaces;
- A four-wheel locked brake skid resulting from jamming too hard on the brakes;
- Hydroplaning resulting from traveling too fast on a water-covered highway or from driving in water with under-inflated or worn tires; or
- Skidding resulting from oil film, wet leaves, loose surfaces, ice, or other slippery conditions.

Once you lose traction and the bus goes into a skid, you must be able to regain directional control. Controlling a skid requires controlled steering, smooth deceleration and controlled braking. If your school bus has lost traction and begins to skid, you will need to do the following:

1. Keep both hands on the steering wheel;
2. Stop braking to allow your rear tires to start rolling again;
3. If you have your foot on the accelerator, gradually lift your foot from the accelerator smoothly, not suddenly;
4. Turn quickly in the direction you want the vehicle to go;
5. Countersteer as your vehicle turns back on course. If you do not turn the steering wheel quickly in the other direction, you will skid in the opposite direction; and
6. Keep your eyes in the direction you want to go.

Hydroplaning

Hydroplaning is a unique situation where your bus loses traction on a slippery surface. If your bus is traveling straight, it may begin to feel slightly loose. If there was a high level of road feel in normal conditions, it may suddenly diminish. If the drive wheels hydroplane, there may be a sudden audible rise in engine RPM and indicated speed as they begin to spin. In a broad highway turn, if the front wheels lose traction, the bus will suddenly begin to drift toward the outside of the bend. If the rear wheels lose traction, the back of the bus will begin to slide out sideways into a skid. If all four wheels hydroplane at once, the bus will slide in a straight line, again toward the outside of the bend if in a turn. When any or all of the wheels regain traction, there may be a sudden jerk in whatever direction that wheel is pointed.

To recover while traveling in a straight line, you should not turn the steering wheel of the bus or apply the brakes. Either action could put the bus into a skid from which recovery would be difficult or impossible. Instead, with no change in steering input, gently ease pressure off of the accelerator and engage the clutch. This will slow your vehicle and let the wheels turn freely; control should then return. If braking is unavoidable, lightly pump the brakes until hydroplaning has stopped.

If the rear wheels hydroplane and cause oversteer, you should steer in the direction of the skid until the rear tires gain traction, and then rapidly steer in the other direction to straighten the bus.

Do not accelerate again until you regain steering control.

Remember, on a bus with anti-lock brakes (ABS), don't pump the brakes. Apply the brakes as needed, allowing the ABS system to automatically pump the brakes. If you don't have ABS, don't panic and jam on the brakes. Don't brake at all or apply only light breaking pressure until you regain steering control. On a bus with hydraulic brakes, light braking requires you to pump the brakes softly to slow the bus in a controlled manner.

On a bus with air brakes, use no brakes at all in a skid if possible — never pump the brakes. The brakes may catch or come on too quickly, further adding to the problem. You should learn what types of brakes your bus has and the proper method of fanning the brakes to gain control.

TIRE BLOWOUT

You must recognize a tire blowout quickly because you only have a few seconds to react. If your front tire has a blowout, your bus will pull in the direction of the flat. If your rear tire blows out, the bus will swerve. Fortunately, most school buses have dual rear wheels, which can minimize swerving in case of a tire blowout, but you will still feel a pull. The major signs of tire failure are:

Sound – The loud "bang" of a blowout is an easily recognized sign. Because it can take a few seconds for your vehicle to react, you might think it is some other vehicle. But any time you hear a tire blow, you must assume it is yours and prepare to stop.

Vibration – If the vehicle thumps or vibrates heavily, it may be a sign one of the tires has gone flat. With a rear tire, it may be the only sign you get.

Feel – If the steering feels "heavy," it is probably a sign one of the front tires has failed. Sometimes, failure of a rear tire will cause the vehicle to slide back and forth or "fishtail." However, dual rear tires usually minimize this.

If a tire blows out:

1. Grip the steering wheel firmly and steer your vehicle straight down the center of your traffic lane;
2. Accelerate for a short period to help maintain steering. Once steering is controlled, let up on the accelerator and let the bus slow down;
3. Do not jam on the brakes – apply them slowly only after you have regained control of the steering;
4. If the bus starts to skid, follow skid control procedures outlined above;
5. Activate right turn signal, move slowly toward the right (out of the traffic lane), and stop;
6. Be sure to activate the hazard warning lights, not the school bus eight-way warning system; and
7. Set up portable emergency warning devices to warn other motorists of your position on the road. This is discussed below.

LOSS OF BRAKES

Anytime you lose your brakes, slow down as described below and attempt to maneuver the bus out of traffic before it comes to a stop, steering to avoid a crash. If this is impossible and the bus stops on the highway, activate hazard warning lights, place appropriate warning markers on the roadway, and evacuate the bus to a place of safety where the students can wait for help. Emergency parking and evacuation procedures are described later in this unit.

If you have brake failure:

- Downshift. Putting the bus into a lower gear will help to slow the bus;
- Sound the horn; and
- DO NOT TURN OFF THE ENGINE.

If your bus has a hydraulic braking system and you experience a partial or total loss of brakes:

- Pump the brake pedal firmly and very rapidly several times; and
- Use the parking brake. On a hydraulic brake bus, the parking brake is separate from the hydraulic brake system. It can be used to slow the bus, if the hydraulic system fails. Gradually apply the parking brake by pressing the release button or pulling the release lever at the same time you use the parking brake, so you can adjust the brake pressure and keep the wheels from locking up.

If your bus has air brakes, a warning buzzer will alert you to the loss of air pressure and to the possibility of the rear brakes locking when air pressure drops to approximately 30 psi. If locking should occur, causing the bus to go into a skid, follow skid control procedures.

Finding an Escape Route on Level Terrain or Upgrades

While slowing the bus, look for an escape route — an open field, wide shoulder, side street or escape ramp. Turning uphill is a good way to slow and stop the bus. Make sure the bus does not start rolling backward after you stop. Put it in low gear, apply the parking brake and, if necessary, roll back into some obstacle that will stop the bus.

Finding an Escape Route on Downgrades: Runaway Truck Ramps

Going slowly enough and braking properly will almost always prevent brake failure on long downgrades. Once the brakes have failed, however, you are going to have to look outside your bus for something to stop it.

Figure H-1. Runaway Truck Ramp

Your best hope is a runaway truck ramp provided on many highways with dangerous downgrades (see Figure H-1). If there is one, there will be signs telling you about it. Use it. Every year, hundreds of drivers avoid injury to themselves, their passengers and others as well as damage to their vehicles by using these runaway truck ramps.

Some runaway truck ramps use soft gravel that resists the motion of the vehicle and brings it to a stop. Others turn uphill, using the hill to stop the bus and soft gravel to hold it in place. Be prepared to use the ramp if necessary. If your route includes a long downgrade with a runaway truck ramp, be sure you know where it is.

If there is an upgrade within the clear distance ahead, stay on the road and allow the upgrade to slow the bus; then select a path for leaving the highway. If no upgrade is within the clear distance ahead, select a path for leaving the highway that will minimize injuries and property damage.

If no runaway truck ramp is available, and no upgrade is within clear distance ahead, take the least hazardous escape route you can — such as an open field, or a side road that flattens out or turns uphill. Make the move as soon as you know your brakes don't work. The longer you wait, the faster the bus will go and the harder it will be to stop.

SUDDEN LOSS OF VISIBILITY

The following can cause a sudden loss of visibility while driving:

- Water splashed on the windshield;
- Windshield wiper failure;
- Headlight failure;
- Hood flying up;
- Patch of fog; and
- White out from snow.

Until you regain normal visibility, you must use cues other than normal visual ones to help you control the bus.

Water Splashed on Windshield

If water is splashed on the windshield:

1. Remove your foot from the accelerator and turn on the wipers;
2. While doing so, apply the brakes cautiously; and
3. Look out the side windows to keep sight of the road.

Windshield Wiper Failure

If windshield wipers fail during rain, sleet or snow:

1. Look out the side windows to keep sight of the road;
2. Apply the brakes cautiously; and
3. Activate your turn signal to get off of the road and stop. Activate hazard warning lights.

Headlight Failure

If the headlights fail, immediately:

1. Hit the dimmer switch to determine if a portion of your lights may be functional;
2. Activate the hazard warning lights;
3. Try to keep sight of the road;
4. Brake slowly; and
5. Steer out of traffic lane, and stop.

Try to use available light along the way to keep sight of the road. In an extreme emergency, a good source of available light would be the flashing hazard lights on the school bus.

Hood Flying Up

If the hood flies up:

1. Look out the left and right windows to help keep your sense of direction;
2. Apply brakes moderately;
3. Activate your turn signal;
4. Steer out of the traffic lane to stop; and
5. When stopped, activate the hazard warning lights, not the school bus eight-way warning lights.

Patch of Fog
If you enter a patch of thick fog limiting your vision:

1. Activate the low beams and hazard warning lights and slow down;
2. Use the center or edge lines on the highway to guide you;
3. If the fog is severe, stay in your lane, use your 4-ways, and proceed cautiously; and
4. Activate strobe light, if equipped.

Under no circumstances should you park your vehicle on the highway. In fog it is especially important to watch for other vehicles that have slowed abruptly or stopped on or near the road.

Whiteout from Snow
If snowfall is creating a condition where your visibility is severely restricted:

1. Remove your foot from the accelerator and turn on the wipers;
2. While doing so, apply the brakes cautiously;
3. Look out the side windows to keep sight of the road; and
4. Steer out of the traffic lane to stop, if necessary, and activate the hazard warning lights.

OBSTRUCTIONS IN THE PATH OF THE BUS

Occasionally, objects may suddenly cross your path while you are operating the bus, such as a pedestrian, vehicle, construction barrier, bicyclist, etc. If these are in your direct path, you must take evasive action. Always remember you are more likely to avoid hitting anything, if you have been practicing good scanning patterns, anticipating problem areas and mentally practicing taking effective evasive action repeatedly until it becomes completely automatic.

You must instantly choose between trying to stop in time and selecting an “escape route,” which is free from other, more hazardous obstacles. 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 the following evasive actions you should perform:

- Proper use of brakes;
- Steering to avoid collision;
- Quick maneuvering, with or without braking;
- Leaving the highway for an escape route free from other more hazardous obstacles; or
- Choosing a lesser collision.

Proper Braking
Generally, drivers tend to apply the brakes at the first sign of trouble. While effective in most instances, braking can lock the wheels and cause loss of steering control, making it impossible to steer away from a collision. For effective evasive action, you must sometimes avoid the temptation to jam on the brakes.

On the other hand, 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 you are from the object, how good your tires are, and whether the road is wet or dry.

For example, if someone suddenly pulls out in front of you, your natural response is to hit the brakes. This is a good response if there’s enough distance to stop and you use the brakes correctly.

You should brake in a way that will keep your vehicle in a straight line and allow you to turn if it becomes necessary. Braking methods were discussed in Unit G.

With controlled braking, you apply the brakes as hard as you can without locking the wheels. Keep steering wheel movements very small while doing this. If you need to make a larger steering adjustment or if the wheels lock, release the brakes. As soon as the wheels start rolling, apply the brakes fully again. It can take up to one second for the wheels to start rolling after you release the brakes, Re-apply the brakes as soon as you can.

On a bus with anti-lock brakes (ABS), don't pump the brakes. Apply the brakes firmly, allowing the ABS system to automatically pump the brakes.

Steering to Avoid Collision

Stopping is not always the safest thing to do in an emergency. When you do not have enough room to stop, you may have to steer to avoid a crash. In many cases, you can turn to miss a hazard faster than you can stop. Therefore, if it's not instantly obvious you can stop in time; you must choose to steer the bus in an alternative path. In order to accomplish this, you must be able to quickly recognize the best escape route. At a glance, decide if a possible escape path is free from other, more hazardous obstacles.

You should avoid swerving the bus, as sudden swerves can be very dangerous, risking your passengers' safety. Because the bus is so big and heavy, it can't swerve sharply to avoid an object or leave the pavement with any great degree of control. Swerving risks overturning the bus. Steer firmly and as gradually as possible to clear the obstruction, and use the brakes, when necessary, as outlined in the previous sections. If possible, avoid steering left, into the opposite lane of traffic. Here are a few tips:

1. **Keep both hands on the steering wheel –** To turn quickly you must have a firm grip on the steering wheel with both hands. The best way to have both hands on the wheel in the event of an emergency is to keep them there all of the time.
2. **Know how to turn quickly and safely –** A quick turn can be made safely, if it is done the right way. Here are some points safe drivers use:
   a) Do not apply the brake while you are turning. It is very easy to lock your wheels while turning. If that happens, you may skid out of control;
   b) Do not turn any more than needed to clear whatever is in your way. The more sharply you turn, the greater the chances of a skid or rollover; and
   c) Be prepared to "countersteer," that is, to turn the wheels back in the other direction, once you have passed whatever was in your path.
3. **Know where to steer –** If an oncoming driver has drifted into your lane, moving to the right is best. If that driver realizes what has happened, the natural response will be to return to his or her own lane.
   a) If something is blocking your path, the best direction to steer will depend on the situation;
   b) If you have been using your mirrors, you'll know what lane is empty and can be safely used;
   c) If the shoulder is clear, going right may be best. No one is likely to be driving on the shoulder but someone may be passing you on the left. You will know if you have been using your mirrors; and
   d) If you are blocked on both sides, a move to the right may be best. At least you won't force anyone into an opposing traffic lane and a possible head-on collision.

4. **Leaving the road –** In some emergencies, you may have to drive off of the road. It may be less risky than facing collision with another vehicle. Most shoulders are strong enough to support the weight of a large vehicle and, therefore, may offer an available escape route. Here are some guidelines to follow if you do leave the road.
   a) Avoid Overbraking – If possible, avoid using the brakes until your speed has dropped to about 20 mph. Then, brake very gently to avoid skidding on a loose surface;
   b) Keep One Set of Wheels on the Pavement if Possible – This will help maintain control; and
   c) Stay on the Shoulder – If the shoulder is clear, stay on it until your vehicle has come to a stop.
5. **Returning to the road –** If you are forced to return to the road before you can stop, do the following:
   a) If at all possible, stop the bus first. Be careful of fixed objects such as utility poles, mail boxes and parked cars that may be blocking your path;
   b) Hold the wheel tightly and turn sharply enough to get right back on the road safely;
   c) Be aware your tires might grab unexpectedly and you could lose control; and
   d) When both front tires are on the paved surface, "countersteer" immediately. The two turns should be made as a single "steer-countersteer" move.

Choosing a Lesser Collision

In any case where collision is absolutely unavoidable, try to reduce speed as much as possible. Also, avoid a head-on collision; collision at an angle reduces the force of impact. Remember, you're more likely to avoid hitting any obstruction in the path of the bus, if you always anticipate the unexpected. Mentally practice effective evasive action until it becomes automatic.

EMERGENCY PROCEDURES

Crashes are events that can cause injury, death or property damage. If you have a crash or find yourself in some other emergency situation, you should know the proper procedures to follow and the proper use of emergency equipment on the bus.

As a bus driver, you must be prepared for any kind of emergency situation. It doesn't happen very often, but there is always the possibility of a crash, mechanical breakdown or other emergency. In any case, your first priority is to see all students are as safe as possible. It is important in an emergency to remain calm. Some rules to remember if your bus is involved in a crash are represented by the word **"KNOW."**

K = Keep all students on the bus calm. It is safer for the students to remain on the bus if there is no other immediate danger.

N = Notify authorities. Always call for help. Use an available cellular phone, two-way radio or other communication device on your bus; know who you should call and how to do so. If you do not have any means of communication on the bus, you may need to identify a responsible bystander to make a call for assistance. **Only in EXTREME EMERGENCIES should older, responsible students be sent for help. Refer to your school district policy and Unit I for additional information.**

O = Off of the road. If you break down, try to position the bus completely off of the road and away from other dangers. If it is not possible to do this, remember to evacuate the students and take them to a safer location.

W = Warning devices. Use portable emergency warning devices that satisfy current state regulations (at least three portable emergency reflective triangles) to warn other motorists of your position on the road.

CRASH PROCEDURES

The Pennsylvania Vehicle Code requires that the driver of a vehicle involved in an accident shall immediately by the quickest means of communication give notice to the nearest office of a duly authorized police department if the accident involves: 1) injury to or death of any person; or 2) damage to any vehicle involved to the extent that it cannot be driven under its own power in its customary manner without further damage or hazard to the vehicle, other traffic elements, or the roadway, and therefore requires towing.

With careful driving habits, you may never be involved in a crash. However, the fact remains a percentage of school bus drivers will be involved in a crash sometime in their driving career. Pennsylvania crash statistics show of the approximately 40,000 Pennsylvania school bus operators, about 13 percent have been involved in one or more crashes.

If you have a crash, **CARRY OUT THE LOCAL POLICY AND PROCEDURES AS QUICKLY AS POSSIBLE**. These include bus-related and scene-related procedures. The following should serve as a guide.

Bus-Related Procedures

Immediately after a crash, your first actions take place in and around the bus.

1. **Assess the situation.** You should immediately do the following:
   a. Stop the bus in as safe a place as possible;
   b. Set the parking brake, turn off all lights and electrical switches and turn off the ignition switch; and
   c. Remain calm, assess the situation, plan your actions, and reassure the students. Refer to Unit I on Student Emergencies.
2. **Be alert for fire.** If a smoke or fire condition is present or imminent, evacuate the students. Do NOT fight the fire unless all of your students have been evacuated safely, are in a secure location and you feel comfortable re-approaching the bus to fight the fire. Evacuation procedures and use of fire extinguishers are described later in this unit. In determining the potential for fire, check for the following:
   a. Ruptured fuel tank or fuel lines;
   b. Hot tires, which may catch fire;
   c. Presence of smoke; and
   d. Possible electrical fire or sparks.
3. **Be alert for hazardous materials.** Check for and identify any possible hazardous materials that present or may present a danger to you and your passengers. Evacuate the students, if a danger exists from the following hazardous materials:
   a. Chemicals;
   b. Vapors; and
   c. Other toxic substances.
4. **Assess the students.** Check for injury to students. Keep the students on the bus unless conditions such as the possibility of fire or other dangers warrant their removal. This is the easiest way to account for all students.

CRASH SCENE PROCEDURES

Once you have taken the above procedures, your next steps should consider the crash scene.

1. **Notify authorities.** Notify state or local police and summon medical aid, if required; notify school administrators as required by local school policy. In most cases, you should not leave the bus unattended to go for help. Ask several passing motorists or pedestrians to notify the proper authorities, if necessary. In an emergency, always follow local school policy, especially in regard to sending students to obtain assistance. You should use the "Three W's" when communicating:
   - Who: bus number, number of students and types of vehicles involved;
   - Where: location of bus or directions to the scene; and
   - What: what kind of help is needed and nature of the problem(s).
2. **Protect the scene.** Protect the students and the bus, from further crashes and injuries by placing warning devices to warn other drivers, and evacuate the bus, if necessary, or both. Protect the scene from traffic and people, so evidence is not destroyed.
3. **Cooperate with the crash investigation.** After you have handled all potential dangers to your passengers, cooperate with officials investigating the crash. You should ONLY discuss the facts of the crash with those officially concerned (police, school officials, insurance personnel). Do not discuss the crash with other motorists or passers-by. Be patient, evaluate questions, and give clear and concise answers to any questions asked by officials. Only respond to the questions asked; don't add your own opinion.

   State law requires you to carry a list of every student passenger's name on the bus in case of a crash or emergency. Provide this information, along with any relevant information about the school bus (e.g., make, model, vehicle number, owner, insurance information), to officials investigating the crash. All such information, including emergency telephone numbers, a seating chart of all passengers (if applicable), and local directives covering crashes and emergencies should be contained in an emergency packet carried on the bus. Contact your insurance carrier to obtain a proper packet.

   A driver involved in a crash is required to give his or her own name, address, driver's license number, and other pertinent information to any other driver involved, and to obtain the same information from any other driver(s) involved in the crash. Get the names, addresses and license numbers of all witnesses' – both for and against you.

   A school bus driver involved in a crash meeting Federal Highway post-crash testing thresholds is also required to submit to testing for alcohol and controlled substances. Note: Pennsylvania state law requires testing after any reportable crash in a school bus.
4. **Keep students at the scene.** During the crash investigation, do not release any of your students to anyone unless instructed by school administration officials or unless medical aid is required. Always keep students on the bus unless the situation requires emergency evacuation.

Keep the following in mind when speaking with others involved in the crash or bystanders:

- **ADMIT NOTHING;**
- **PROMISE NOTHING; AND**
- **DO NOT ARGUE.**

REPORTING PROCEDURES

Every crash must be reported to your supervisor. There are no minor crashes involving a school bus!

Remember the information you need for your crash report:

- School bus ID number;
- Driver's name, address and driver's license number;
- Date, time, weather, and direction of travel;
- Damage to vehicle;
- Name of owner of other vehicle or property, address, license number, make and model of vehicle, and damage to other vehicle;
- Injuries to persons involved, their names, addresses, extent of injuries;
- List of passengers on the bus and in other vehicle(s);
- Names and addresses of passengers in other vehicles;
- Name of insurance companies involved;
- Name of police at scene; and
- Diagram of crash scene.

In addition to any local crash reports, the owner or operator of any school bus involved in a crash is required by state law:

- Within 24 hours, to report the crash to the chief school administrator or the authorized representative of the school district, private school, or parochial school that either employs or contracts the service of the owner or operator.

- Within five days, School Bus Crash Report (DL-739) must be completed whenever there is any injury or property damage, regardless of how slight. Complete the form even when students aren't on the bus at the time of the crash. After completing the form, submit it to PennDOT. You should check with your employer and school district regarding who will fill this form out. In some cases, the driver will fill this out, in others, the safety director.

Incident Reporting

Because of the possibility of liability suits, drivers are responsible for reporting all incidents occurring in or around their buses during their runs. Remember, your passengers are your first responsibility in any incident. You should report all incidents to your supervisor. He or she will take any appropriate action, if necessary.

MECHANICAL FAILURE OR BREAKDOWN

In the event of a mechanical breakdown, know what to do, how to do it and when it should be done. The following is a suggested procedure:

1. Stop the bus as far to the right of the road as possible or on the shoulder of the road;
2. Keep the students on the bus. However, if the location of the bus is unsafe, evacuate the students to a safer location (see evacuation procedures in the next section);
3. Activate hazard warning lights and place warning devices on the highway (see the section on using emergency equipment later in this unit);
4. Contact the proper school authorities and give the location of the bus and a description of the breakdown; and
5. See that arrangements are made for all students to be delivered to their destination.

EVACUATING THE BUS

In certain crash and emergency situations, you may need to evacuate the students from the bus. You should know when to evacuate the bus and the procedures for evacuating a bus. These procedures are practiced in required evacuation drills. In any situation requiring evacuation, remain calm and take charge of the situation. As the bus driver, YOU are the leader. Review procedures below for guidance in situations where you are incapacitated.

WHEN TO EVACUATE

Usually, students remain on the bus during an emergency. Four situations, however, require that you evacuate the bus — existing or imminent smoke or fire condition, presence of hazardous materials, unsafe position of the bus, or vehicle submersion or immersion.

Existing or Imminent Smoke or Fire Condition

Stop the bus and evacuate it immediately, if the engine or any portion of the bus is smoking or on fire. An existing fire near the bus or the presence of gasoline or other combustible material is considered as "danger of fire." Evacuate students as described below.

- Evacuate students through the door farthest from the fire or potential source of fire;
- Evacuate students closest to the danger first;
- Give the students a specific location to go to that is far away from the bus but still within your visual range; and
- Give clear, concise and EXACT instructions.

Presence of Hazardous Materials

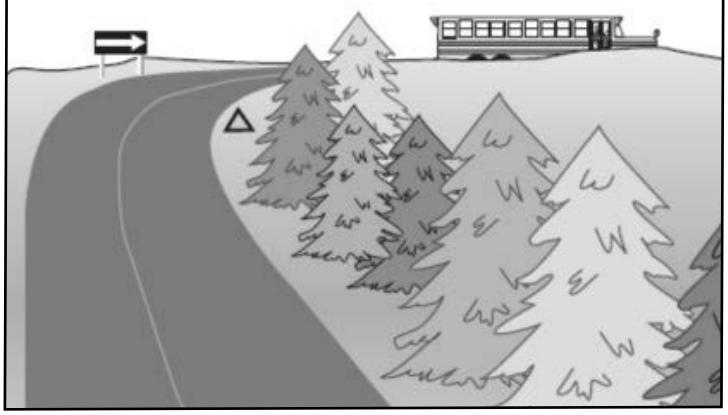
If any hazardous materials are present in or near the bus, evacuate the students. This includes vapors or fumes, which may enter the bus from outside sources and may be dangerous to the passengers.

Unsafe Position

In the event the bus is stopped due to a crash, mechanical failure, road conditions, or human failure, determine immediately whether it is safer for the passengers to remain in the bus or to evacuate. You must evacuate when:

- The final stopping point of the bus is in the path of any train or adjacent to any railroad tracks.
- The position of the bus might change and increase the danger. For example, evacuate if a bus comes to rest near a body of water or cliff where it could still move and go into the water or over the cliff.
- The location of the bus creates the 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 (see Figure H-2).

Figure H-2. Potentially Dangerous Location Around



Bus Submersion or Immersion

In the very unlikely event the bus has driven off of the roadway and into a body of water and is submerged or immersed, evacuate students out of the nearest most usable exit.

In all these cases, carry out the evacuation as safely as possible.

EVACUATION DRILLS

In an emergency, the students may panic and rush to the exit causing the emergency door to become jammed by everyone trying to get out at the same time. So that students know what to expect during an evacuation, State law requires each student who is transported in a school bus to participate in emergency evacuation drills in the first week of school and in March of every school year. This includes all students even if they may only ride a bus on special trips. In fact, drills should be conducted more frequently. While state law does not require evacuation drills for school vehicles, they are highly recommended as a matter of safety preparedness for both students and drivers alike.

Everyone involved in drills should keep these points in mind:

- Safety of the students is of the utmost importance and must be considered first. Getting them off of the bus safely, quickly and in an orderly fashion is the objective.
- All drills should be supervised by the principal or by persons assigned to act in a supervisory capacity and held on school property. You are responsible for conducting the drill in an organized manner.
- In a real emergency, you might be incapacitated and unable to direct the student emergency evacuation. During the drill, be sure to review procedures with students, so they know what to do if you are unable to help. Don't assign a student as a leader without written consent from a parent or legal guardian.
- During the drill, students should be instructed how and where to get help if the driver is unable to do so. Instructions and telephone numbers should be posted or otherwise carried in the bus. Students should be instructed to enlist several bystanders to go for help, since some of those asked might not want to get involved in the situation.
- Students should be instructed on how to use the radio, and the location of emergency equipment on the bus.
- Follow local policies in conducting evacuation drills and emergency procedures.
- Explain to all passengers the procedures to be followed if an evacuation is necessary. The following recommended procedures may be adapted to your local situation.

Front Door Evacuation Drill

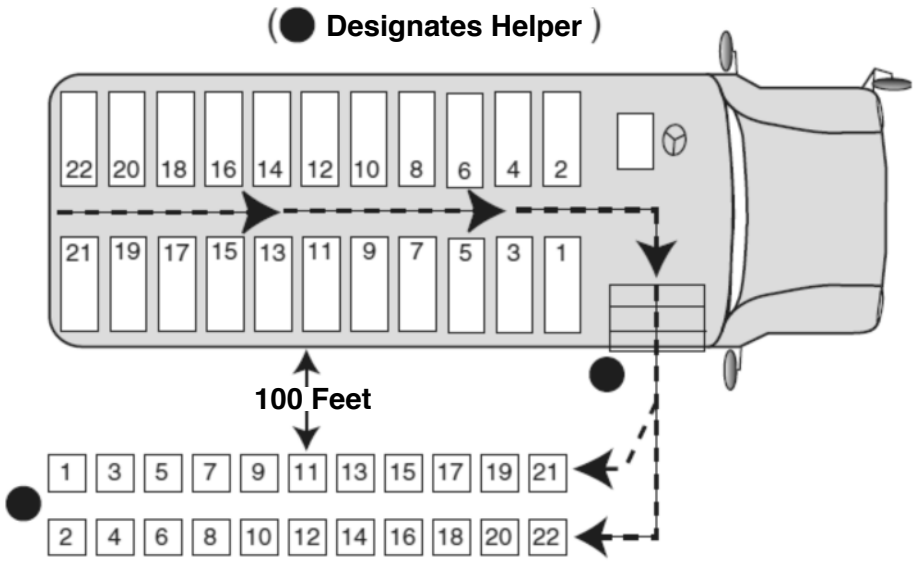
In the interest of safety, all drivers should regularly conduct an emergency evacuation drill through the front door with each bus load of students, when they unload at school (see Figure H-3).

Follow these steps:

1. Stop the bus at the normal unloading location or pre-selected location on the school grounds;
2. Set parking brake, turn off engine and remove ignition key;
3. In buses with a manual transmission, select either the first gear or reverse position. In buses with automatic transmissions, select either the park position or neutral with the parking brake on;
4. Stand, open the front door, face the students, and get their attention;
5. Tell them, "Do what I say — remain absolutely quiet";
6. Then say, "Front door emergency evacuation drill—remain seated";
7. Direct two student helpers (appointed at the beginning of the year or each month) to their positions. Assign one helper to lead the students to a designated location away from the bus where the students quietly remain in order. Assign the other helper to stay outside the front door to count and assist passengers as they leave;
8. Instruct students to leave all belongings such as books and lunch containers on the bus and tell them they can be retrieved after the drill is completed;

9. Turn and face the front of the bus, standing between the first row of occupied seats;
10. Starting with the right-hand seat, tap the shoulder of the student nearest the aisle to indicate that those occupants should move out. Say, “Walk — don’t run. Use hand rails.” At the same time, hold your hand before the occupants in the left-hand seat in a restraining gesture;
11. When the students in the right-hand seat have moved far enough to clear the aisle, dismiss the occupants of the left-hand seat;
12. Continue this procedure as described, right and left seats alternately, until the bus is empty;
13. When the last seat is empty, walk to the front of the bus and check to be sure everyone is out;
14. Leave the bus and take the helper at the front door with you and join the passengers and the other helper;
15. Evaluate the evacuation drill, pointing out improvements needed and commending students on activities well done;
16. Have students return to the bus in an orderly manner to retrieve their belongings before entering the school. Have students who are to continue to another school remain on the bus, and proceed on your route; and
17. Complete any reports as required by local policy.

Figure H-3. Front Door Evacuation



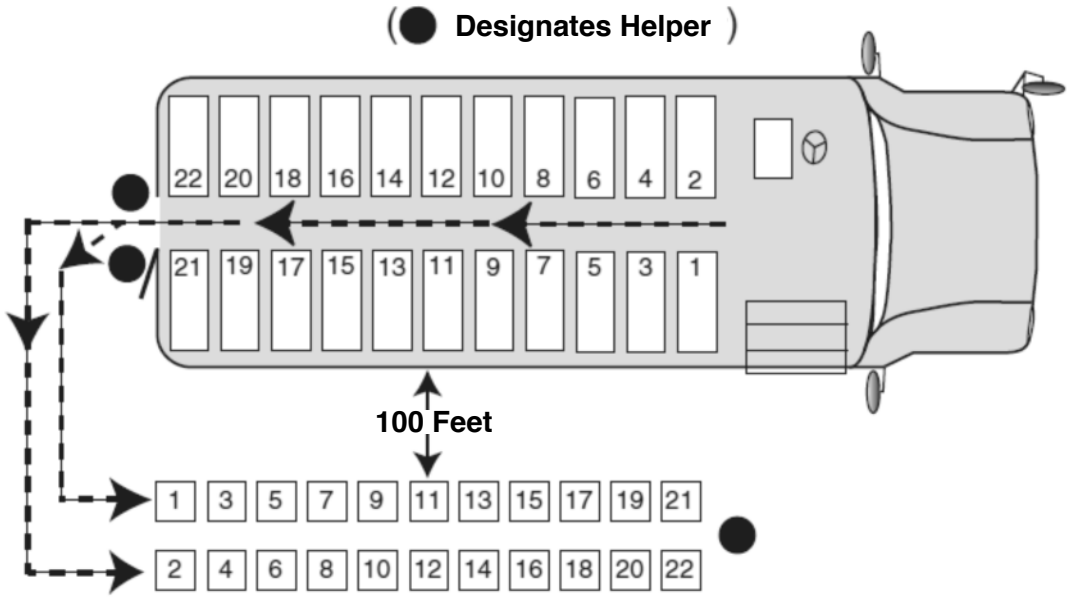
Rear Emergency Door Evacuation Drill

The rear emergency door evacuation drill should be practiced as often as possible with elementary and secondary students (see Figure H-4). In some cases, the rear emergency door evacuation drill may be used for demonstration purposes only and not practiced by students in order to prevent unnecessary injury performing the drill.

1. Follow steps 1-3 of the Front Door Evacuation Drill;
2. Stand facing the students, get their attention and tell them, “Do what I say — remain absolutely quiet”;
3. Then say, “Rear door emergency evacuation drill — remain seated”;

4. Instruct students to leave all belongings such as books and lunch containers on the bus and tell them they can be retrieved after the drill is completed;
5. Walk to the rear of the bus and face rear door;
6. Use left hand to restrain occupants of right rear seat;
7. Open the rear emergency door;
8. Assign two helpers to sit in the left rear seat. Have the helpers exit out the rear emergency door. Assign the helpers to assist passengers getting out of the bus: one helper assists the passengers as they exit the bus, and the other leads passengers to a designated location away from the bus where they remain quietly in order;
9. Face the doorway and move between the left rear seats to clear the aisle;
10. Instruct students in right rear seats to leave the bus. Have them assume a semi-squat position as they exit the bus. Instruct helpers to grasp a passengers' wrist or forearm with one hand and to place their other hand under a passengers' shoulder as the passenger exits the bus. Caution students not to bump their heads when leaving through the rear door;
11. Tell students in the next left seat to leave the bus. Keep control at the rear door to prevent any pushing or shoving. Students who are injured, disabled or in a condition that may be aggravated by exiting out the rear door (e.g., overweight, pregnant) should not be required to participate in the drill. They should leave the bus with the driver through the front door and join the other students when the drill is completed;
12. Continue the above procedure, alternating left and right seats until the bus is empty;
13. When the last student has exited, walk to the front of the bus and check to make sure everyone is out; and
14. Join the students and conclude the drill as described in steps 15-17 of the Front Door Evacuation Drill.

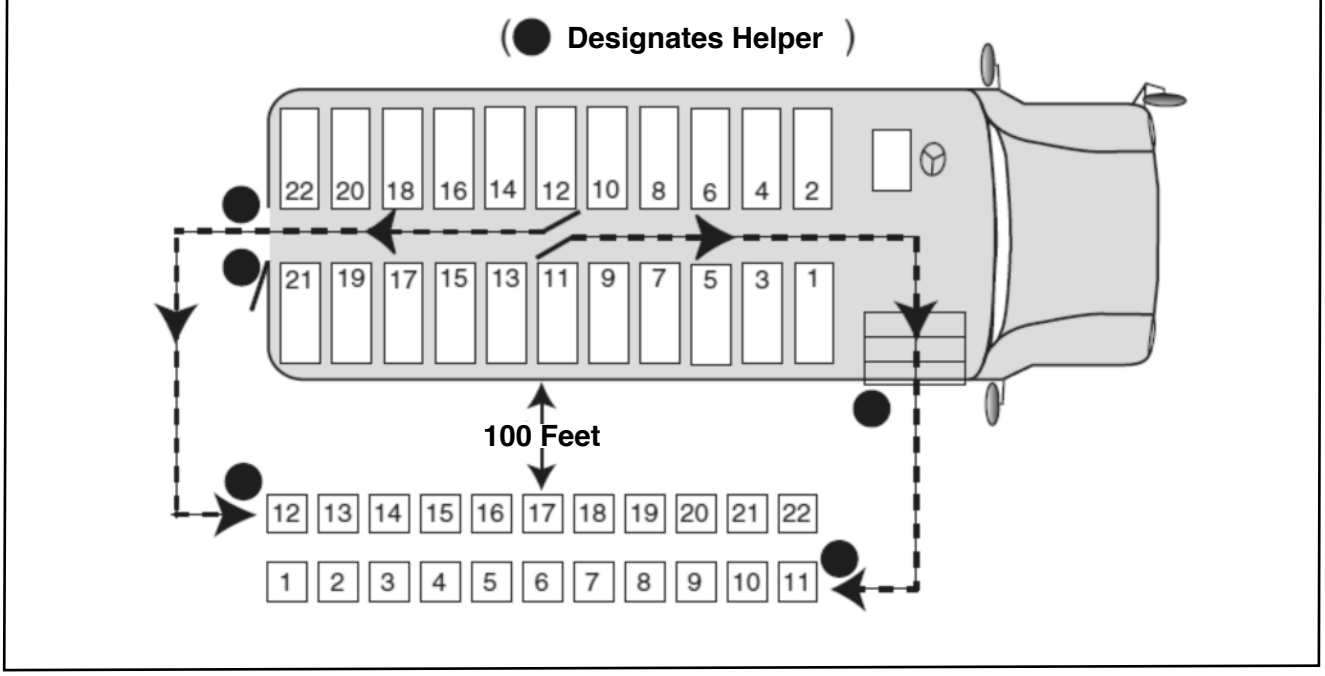
Figure H-4. Rear Door Evacuation



Front and Rear Door Evacuation Drill

A combination of the procedures used for the front door and rear door evacuations also can be used for an evacuation drill in which students leave the bus through the front and rear doors (see Figure H-5). Procedures for the front door evacuation are used for students in the front half of the bus; and procedures for the rear door evacuation are used for students in the rear half of the bus. The only exception to using these procedures as described above would be the command given at the beginning of the drill: “Front and rear door emergency evacuation drill — remain seated.” In a real emergency, this type of evacuation would require the shortest amount of time to get the passengers off of the bus. However, it is dependent upon both doors being available for safe evacuation. This drill should be used for elementary and secondary students. Student helpers should be properly instructed on how to assist students out of the rear of the bus. Helpers should reach up and lift students down as they exit the rear emergency door. Again, this drill may be performed as a demonstration only.

Figure H-5. Front and Rear Door Evacuation



Other Emergency Evacuation Procedures

In an actual emergency, it might be necessary to evacuate students through the bus windows or roof vent. Maintain order as much as possible in these situations and work to evacuate all passengers as quickly and safely as possible. Before leaving the bus, you should always check under all seats to make sure no students are on the floor. This applies to all types of evacuations. Also keep in mind the fastest way to evacuate the bus may be to have half the students exit through the front door and half through the rear, if feasible.

USING EMERGENCY EQUIPMENT

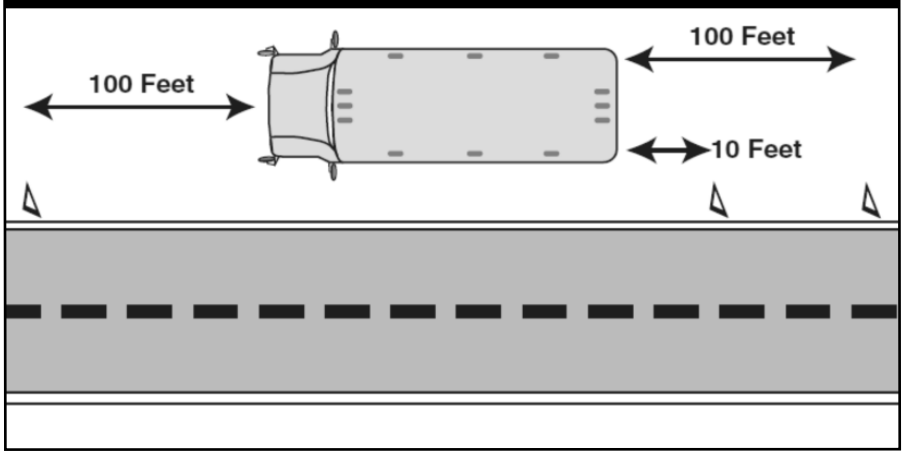
When an emergency or crash happens, it's too late to learn how and where to use emergency equipment. All school buses are required to carry the following:

- First Aid Kit;
- Portable emergency warning devices (at least three portable emergency reflective triangles);
- Pry bar;
- Fire extinguisher;
- List of student names with their assigned pick-up and delivery times;
- Spare electrical fuses unless the bus has circuit breakers;
- Seat belt cutter (also known as a web cutter) is required in every school bus equipped with passenger seat belts; and
- Body Fluid Clean-Up Kit.

You should know the location and operation of this equipment. The use of emergency devices is discussed below. The First Aid Kit is discussed in Unit I.

PORTABLE EMERGENCY WARNING DEVICES

Figure H-6. Placement of Warning Devices



Buses in service are equipped with at least three triangular reflectors, which serve as warning devices as per Section 171.83 of Title 67. They are encased in a container in the driver's compartment. You will use three reflectors to warn oncoming vehicles of a disabled bus as per Section 167 of Title 67. Older buses may be equipped with round reflectors, red flags, or flares, which should be placed according to the procedures given below for reflectors (see Figure H-6). Use of flares is not recommended unless placed by first responders.

1. **First Reflector –** Place the first reflector along the roadway side of the bus within 10 feet of the front or rear corner to mark the location of the bus.
2. **Second Reflector –** Place the second reflector about 100 feet behind the bus on the shoulder or lane you are stopped in. If there is a hill or curve preventing oncoming traffic from seeing the bus, place the reflector up to 500 feet behind the bus.
3. **Third Reflector –** Place the third reflector about 100 feet in front of the bus again using greater distances if conditions warrant.

PRY BAR

The pry bar is located close to the driver's compartment as per Section 171.65 of Title 67. Use it to pry open doors, windows or other parts in the event of a crash where damage to the vehicle prevents easy exit by normal means.

FIRE EXTINGUISHER

A portable fire extinguisher must be located in an accessible location in the driver's compartment of every school bus as per Section 171.51 of Title 67. Fire extinguishers work by either cooling the burning substance or by cutting off the supply of oxygen to it. Before using a fire extinguisher, make sure it is properly charged. A gauge is mounted at the top of the extinguisher to indicate it is fully charged. If the needle on the indicator stays in the charged area, the extinguisher is properly charged. If the needle is in the overcharged or undercharged areas, report it to your mechanic. This should be checked as part of your pre-trip inspection (refer to Unit E).

Only try to extinguish a fire, if you know what you are doing and it is safe. Your first priority is to evacuate all students and quickly get them somewhere safe. Do NOT waste your time fighting a fire when you need to get students off the bus.

If you do have to fight a fire, here are a few tips:

Engine Fires – With an engine fire, turn off the engine as soon as you can. DO NOT open the hood, if you can avoid it. Aim extinguishers through louvers, radiator or from the underside of the vehicle.

Other Fires – Only try to extinguish a fire, if you know what you are doing and it is safe:

- If possible, stand upwind from the burning material to prevent standing in smoke and heat;
- Do not walk into unburned material that could catch fire in a back flash and cause injury to you;
- When using the extinguisher, stay as far away from the fire as possible;
- Point the fire extinguisher at the base of the fire and use a sweeping motion. Do not aim the extinguisher at the flames;
- Position yourself upwind. Let the wind carry the extinguisher to the fire rather than carrying the flames to you; and
- Continue until whatever was burning has been cooled. Absence of smoke or flame does not mean the fire is completely out or cannot restart.

To operate a fire extinguisher:

1. Remove it from the bracket;
2. Pull the safety pin by breaking the seal;
3. Hold it in an upright position;
4. Aim it at the base of the fire;
5. Squeeze the handle to discharge the extinguisher; and
6. Squeeze and release as necessary to control the fire.

The extinguisher will only last approximately eight seconds. No matter how much you use it, you must recharge the fire extinguisher or replace it with a substitute before the next run.

These instructions are applicable to most fire extinguishers, but you should check and be familiar with the instructions for the extinguisher on your bus. You should try to have actual hands-on use of the fire extinguisher during training.

LIST OF STUDENT NAMES

Every bus must have a list of names for all students who ride the bus and the appropriate pick-up and delivery time for each student. This list can be used to account for the students in an emergency. Although not required, a seating chart for students on the bus is strongly recommended. It can also be helpful in emergency situations.

SPARE ELECTRICAL FUSES

All buses should carry the proper spare electrical fuses in case a fuse is blown. The location of these varies by bus type and manufacturer. If the bus is equipped with circuit breakers, this is not necessary.

Figure H-7. Seat Belt Cutter

SEAT BELT CUTTER

If your school bus is equipped with one, the seat belt cutter will be mounted in a visible location in the driver's compartment. See Figure H-7.

OPTIONAL EQUIPMENT

Although not required, the following equipment may be carried on every school bus, especially those used to transport students with disabilities. This is not an all-inclusive list.

- Vomit odor absorbent, basin or pail (water in jug), sponge, and plastic bags;
- Tissues and paper towels;
- Plastic or other waterproof material for seats;
- Blankets and sheets to use as protection in cold weather;
- Sand or other substance for traction on ice; and
- Clean rags, gloves, or pads for motor check-up en route in case of suspected trouble.

These all must be securely fastened in the vehicle and not blocking the aisle way.

SCHOOL BUS SECURITY

WHY SCHOOL BUSES CAN BE TARGETS

1. They are relatively unprotected and vulnerable;
2. They have predictable routes and schedules;
3. They have the potential for a large number of casualties;
4. There are schools all over the nation;
5. They have unquestioned access to high-value destinations;
6. They represent an emotional target; and
7. The effects of a terrorist attack on school buses would be demoralizing.

SCHOOL BUS DRIVERS

You, as a school bus driver, are the eyes, ears and protectors of your communities the same as the Neighborhood Watch Program. You know your routes and know what is usual and unusual. Therefore, you need to be informed on how to react in security-related situations.

1. Learn state and school district security guidelines;
2. Be aware of suspicious activity or behavior in areas around school buses, school bus facilities and schools;
3. Notice and report any unusual conditions of vehicles, those belonging to the school district and those vehicles that may enter into parking lots or facilities. Pay attention to suspicious people or vehicles in the school bus area outside a school or at school bus stops;
4. Be vigilant with respect to strange packages, items or substances, which are brought on or around school buses;
5. Know who your supervisory contacts are in the school district and have their phone numbers immediately available;
6. Recognize threats and how to properly handle them;
7. Learn emergency operating plans and procedures, and stay familiar with the operation of emergency equipment. For example, remove keys from the ignition when your bus is unattended;
8. Inspect your bus whenever you have left it unattended for any length of time; and
9. Keep a clean bus.

CHARACTERISTICS OF SUSPICIOUS ITEMS

1. Items that are abandoned or hidden in an unusual place;
2. Items having leaking gas, vapor, odor, or suspicious substance, including excessive grease;
3. Any items containing exposed wires or timer;
4. Any items having an attached message with a threatening note or suspicious markings; and
5. Any canister, propane style tank, metal box, bottle, or out of place items.

SCHOOL BUS SAFETY AND SECURITY CHECKLIST

You need to be vigilant when checking the following items in a pre-trip inspection, or anytime you have left the bus unattended for any length of time.

1. **Seats:** Look for lumps, bulges, damaged upholstery, and any suspicious packages on a seat;
2. **Floor Surface:** Look for modifications to material/unusual thickness;
3. **Passenger Compartment:** Smell for strange odors, raised floor, unusual welds, unusual items, or excessive weight;
4. **Exterior Surface:** Look for missing screws, unusual scratches, welds, signs of tampering, or recent paint;
5. **Undercarriage:** Look for items taped or attached to the frame or fresh undercoating;
6. **Engine Compartment:** Look for odd wires or liquids, unusual welds or new tape;
7. **Tires:** Look for unusual odor from air valve;
8. **Fenders:** Look for unusual thickness.

IDENTIFYING SUSPICIOUS BEHAVIOR OR ACTIVITIES

Suspicious activities are anything you may feel is unusual or out of place. In addition, pay particular attention to the following:

1. Anyone appearing interested in school facilities, vehicles or their surroundings;
2. Anyone who has been sighted within a school, or school bus stop numerous times;
3. Anyone who has put a package in a public place and left quickly;
4. Anyone soliciting information on school facilities, buses or schedules;
5. Anyone taking pictures or videotaping areas of school bus facilities, schools or school bus stops;
6. Anyone looking lost or wandering around at school bus stops or school grounds, or anyone who seems to be somewhere they are not supposed to be;
7. Anyone showing disruptive or potentially distracting behavior; anyone showing an unusual interest in employees or students, the school or school bus locations; anyone wearing a uniform who appears to not be part of the setting;
8. Anyone wearing clothing that is not appropriate for the weather;
9. Any person possessing a weapon or dangerous item; and
10. Using a vehicle in a suspicious way (illegally parked, erratic driving, following).

Reporting Suspicious Items and Unusual Activities

1. Remain alert and calm. Be as observant as possible, paying attention to the location of the item or device;
2. **IMMEDIATELY** report suspicious items and behavior to your dispatcher or local authorities. If you suspect a serious situation, call 911 right away;
3. Be able to report the location, color, year, make, model, and license plate number. Be sure to include the direction of any suspicious vehicles;
4. Never touch a suspicious item. You need to move as far away as possible and be aware you could be injured by flying glass or debris; and
5. **DO NOT USE** your radio or cell phone within 300 feet of the timer or device.

YOU CANNOT IDENTIFY SUSPICIOUS BEHAVIOR BASED ON STEREOTYPES OF RACE, COLOR OR ETHNICITY.

HOSTAGE AWARENESS

EMOTIONAL STAGES

If you find yourself in a hostage situation, you need to understand the feelings you will experience:

1. **Denial:** It is common for the victim to feel that “this can’t be”, “this is not happening to me,” or “it is just a joke.”
2. **Belief of immediate rescue:** Do not mislead yourself by thinking you will be rescued right away. It is to your advantage for the situation to take time to resolve. There is more of an opportunity for negotiation with the captor, which can lead to a peaceful resolution; and
3. **Loss of immediate reality:** Make a determined effort to stay focused. Avoid the temptation to let your thoughts center around your family/loved ones, and what might become of them if something should happen to you.

THINGS “TO DO” IN A HOSTAGE SITUATION

1. **Bond with your captor:** Try to relate to them and build a relationship of understanding and sympathy;
2. **Be human:** Do not allow the captor to view you as an object instead of a person. Let your captor know you are a father or mother and there are people who depend on you, even if there are none. Avoid having your face covered. This dehumanizes a person;
3. **Take mental notes:** Without being obvious to the captor, note hair color, any scars, tattoos, or other identifying marks. Estimate height and weight;
4. **Expect to be arrested:** Law enforcement personnel will detain everyone until identification can be verified. Captors have exchanged clothing with hostages in an effort to escape. Your district will have officials on the scene to identify you;
5. **Keep a low profile:** Speak only when spoken to; do not initiate conversation;
6. **Think pleasant thoughts:** The incident could go on for hours. Avoid falling into depression, and remain confident you will be released;
7. **Remain strong for your students:** Even though you may have had a difficult time with the students all year, they will look to you for leadership in an emergency. If you maintain your composure, it will help them to do the same; and
8. **Remember you are a primary witness for investigators:** It is vital you write down everything that occurred during the hostage situation from onset to resolution. Do this as soon as possible while the events are still fresh in your mind. Do not speak to the media. Your district officials on the scene should shield them from you. Follow district policy regarding any future media contact.

THINGS “NOT TO DO” IN A HOSTAGE SITUATION

1. **Do not make any threats:** Remember the captor is holding you against your will with some type of weapon. Do not behave, or speak in a manner that may be perceived by the captor as threatening;
2. **Do not stare or glance at your captor:** Keeping your eyes down will give the appearance of submission. Do not appear aggressive in your body language or facial expressions;
3. **Do not interfere:** Do not volunteer to assist the captor in any way. Do not interfere with the actions of the captor. For instance, he/she may be irritated with crying students and strike the students to quiet them. Remember you are being held at gun/knife point. Challenging the captor will increase the risk of further harm to yourself and/or the students;

4. **Do not negotiate for your own release:** Only the police will conduct negotiations. If you involve yourself, you may jeopardize a peaceful resolution to the hostage situation;
5. **Do not negotiate for the release of the students:** Do not make offers or promises of money or possessions in exchange for the release of the students. Only the police can negotiate; and
6. **Do not be arrogant:** Give the captor whatever they want. Do not resist. It could result in harm to yourself and/or the students.

TIPS TO HELP YOU IN A HOSTAGE SITUATION

1. **Help keep the peace:** Prevent anyone from getting hurt. Consider your actions, so as not to put yourself or your passengers at risk;
2. **Be patient:** If you as the driver show patience, then your students will be more prone to follow your lead;
3. **Remain calm:** Try not to show fear, the students are looking to you as an example;
4. Know that 99 percent of all situations are resolved through negotiations: **Negotiations may take time, but remember time is on your side;**
5. **Do not be confrontational:** Don't be a hero, unnecessary harm to you or your passengers may result from your actions;
6. **Communicate:** If possible, try to make your location and situation known as soon as possible, if the hostage taker has not made contact. (Microphone keyed open);
7. **Be a good witness:** Make a mental picture of the hostage-taker(s) and any weapons. The driver preferring to stay with their students may not have the choice. This information may be vital for the police in determining the next move to help the remaining hostages;
8. **Attempt to get along:** You should cooperate with your captor and do as you are told. Comply with reasonable demands, but the key is not to offer help;
9. **If the police try to enter the bus:** Try to avoid giving away police positions or actions, by your actions or facial expressions. Captors could pickup on them. Be prepared for loud noise and follow instructions quickly;
10. **Help avoid getting caught in a hostage situation:** Report any suspicious person immediately. Do not wait for something to happen or get out of control;
11. **Call the police:** This is the best action a driver can do. Avoid becoming caught in the situation before it occurs; and
12. **Know your passengers:** Knowing your passengers and their needs can be vital in such emergencies. Their medical needs may allow for you to communicate with emergency medical personnel in a hostage situation.

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