

# **ACCIDENT GRADING AND DISCIPLINE SYSTEM**



**N**TRANSIT



**BUS & LIGHT RAIL OPERATIONS  
and the ATU/TWU**

*May 1, 2002*

## **TABLE OF CONTENTS**

### **SECTION I – Program Elements**

**Accident Grading & Discipline System**

**Defensive Driving Principles and Guidelines on  
Accident Preventability**

**Record of Employee Counseling**

### **SECTION II - Table of Accident Grading and Preventability Guidelines**

### **SECTION III - Accident Grading Principles, Policies, Statutes and Regulations**

**Professional Operator Workbook – Defensive  
Driving Concepts and Techniques**

**Federal Motor Carrier Safety Regulations**

## **ACCIDENT GRADING AND DISCIPLINE SYSTEM**

### **A. INTRODUCTION**

NJ Transit is committed to providing safe, reliable and efficient transportation service to the public. The effectiveness of this paramount organizational goal is contingent upon the safe operation of each bus and the management of training and safety programs.

All accidents have a potential impact on deteriorating the confidence and support of the general public. To maintain a good safety record and a strong positive image, it is necessary to employ only those operators who demonstrate safe driving behaviors.

In order to maintain the most qualified operating force, an equitable discipline system is needed. The system below uses a grading matrix that takes into account both accident severity and the degree to which the accident was preventable. An additional feature includes a "point" system as opposed to a direct disciplinary action.

### **B. PROGRAM ELEMENTS**

1. Program applies only to vehicle related accidents (collisions, injury on bus and pedestrians).
2. All accidents are graded by degree of preventability and severity.
3. After points are assessed for a particular accident the Company, for the purposes of determining the accumulation of points for corrective action, will review the record of the employee for the last five (5) years and add the points imposed for the particular accident to the last accumulated point total shown on the employee's record for that five (5) year period.
4. The last accumulated total on the employee's record will reflect a reduction of two (2) points for each twelve months of driving by the employee without a preventable or partially preventable accident, from the date of the last preventable or partially preventable accident during the five (5) year period. (In no event will an employee's accumulated total of points be less than zero.)
5. The grievance process outlined in the labor agreement will remain.
6. Accidents determined to be preventable will require mandatory counseling and/or re-training activities. All training will be completed with compensation paid to the operator for his/her run and/or 8 hours for extra board persons. Part-time Operators will be compensated for the actual training hours completed.
7. High profile accidents will continue to be reviewed by a panel comprised of management personnel, however, the union is not bound by the decision per the current grievance process.
8. The Company reserves the right to assess the maximum number of points (16) if it finds that a preventable severe accident was caused by gross negligence of the employee.

## **C. GRADING PREVENTABILITY**

Garage/location supervisory personnel will review the information on the occurrence report and secure additional information needed to make a determination of preventability.

The following definitions and criteria will be used to determine preventability of an accident:

### **1. Preventable Accident - Definition**

A preventable accident is one in which the operator failed to take reasonable action to prevent the accident. Examples include struck other vehicle in rear, fixed objects, parked vehicles, etc.

Any accident should be considered preventable if one or more of the following activities occurred:

- **Failure to follow basic rules of defensive driving** - An accident is judged preventable if the accident reports and the resulting investigation determines that the employee did not follow the basic rules of defensive driving practices. Reference should be made to the attached "Defensive Driving Principles and Guidelines on Accident Preventability," prior training courses attended, re-training activities.
- **Violation of company policy and procedures** - An accident is judged to be preventable if the investigation finds that the employee violated any of the policies and/or procedures found in the employee safety rules and/or safety bulletins.
- **Violation of federal or state regulations and statutes** - An accident is judged preventable if the investigation finds that the employee knowingly violated any federal, state, county, city traffic code and/or motor carrier safety regulations. A violation can be present exclusive of a police officer issuing a traffic citation.
- **Operator impaired (alcohol, drugs, fatigue, etc.)** - In accordance with NJ Transit's drug and alcohol program and/or hours of service regulations.

### **2. Partially Preventable Accident - Definition**

A partially preventable accident is one in which the operator partially contributed to the accident by his or her action or lack of action. Examples include merging, failure to take precautionary measures before entering an intersection, struck in rear due to improper positioning of vehicle, etc.

### **3. Non-Preventable Accident - Definition**

The accident would have occurred regardless of the actions by the operator.

**D. GRADING SEVERITY**

A severity rating is needed in order to assess points against an employee's record. Grading severity will require further analysis based on outcomes of the event including injury to parties involved and the extent of damage to vehicles and property. The following categories and definitions must be used to determine severity:

**1. Minor**

This category includes accidents with no injuries or injuries that require first aid treatment only. This category includes minor damage to vehicles or property, NJ Transit and/or others and can be driven away from the scene.

**2. Major**

This category includes injuries that are more serious and require hospitalization of the injured person(s). This category includes major damage to vehicles or property, NJ Transit and/or others that renders the vehicle inoperable or they require extensive mechanical repairs.

**3. Severe**

This category includes injuries that are life threatening or injuries that cause extreme alterations in mobility or appearance. This category includes damage to vehicles or property, NJ Transit and/or others that may be classified as a total loss or requiring repairs that place a significant financial burden on NJ Transit and/or other parties involved.

**E. APPLICATION OF POINTS**

The following table is used to determine the number of points assessed for each preventable or partially preventable accident:

	Severe	Major	Minor
Preventable	7	4	2
Partially Preventable	5	2	1
Non-preventable	0	0	0

**F. CORRECTIVE ACTION**

The following corrective action is required based on the total points accumulated for each type of accident:

- |    |                                |   |  |
|----|--------------------------------|---|--|
| 1. | Accumulation of 2 to 4 points  | - | Counseling by Garage Supervisor  |
| 2. | Accumulation of 5 to 7 points  | - | 1 day refresher training   |
| 3. | Accumulation of 8 to 10 points | - | 2 day re-training with record Review/written counseling.<br>(see attached)     |
| 4. | Accumulation of 12 points      | - | Counseling with recommendation to seek alternate employment.<br>(see attached) |
| 5. | Accumulation of 16 points      | - | Discharge  |

**G. GRIEVANCE ISSUES**

**Hearing Process**

- A. The grievance process outlined in the labor agreement will remain in place.
- B. If an accident decision is overturned at the second or subsequent steps, or if a change in preventability occurs that warrants a point reduction, only the supervisor or assistant supervisor can make the necessary change.

## **RECORD OF EMPLOYEE COUNSELING**

Employee Name/# \_\_\_\_\_

Location \_\_\_\_\_

Date Completed \_\_\_\_/\_\_\_\_/\_\_\_\_ Time Completed \_\_\_\_\_ AM PM

Completed By \_\_\_\_\_  
(Name/Position)

Reason for Counseling (Circle One) 2-4 Points 8-10 Points  
12+ Points Other (Describe) \_\_\_\_\_

**Discussion Notes:**

---

---

---

---

---

---

---

---

---

---

**Persons Present: (Print Name and Sign Below)**

\_\_\_\_\_  
Name (Supv./Asst.)

\_\_\_\_\_  
Name (Union Representative)

\_\_\_\_\_  
Name (Employee)

## **DEFENSIVE DRIVING PRINCIPLES AND GUIDELINES ON ACCIDENT PREVENTABILITY**

### **I. INTRODUCTION**

#### **A. Foreword**

The purpose of this publication is to provide consistent system-wide criteria and procedures for determining accident preventability. Following is a discussion of each of the major types of accidents including discussion on defensive driving principles for each type of accident. These principles are established nationally recognized driving techniques taught to each NJT operator. Use of the applicable defensive driving principle in any given situation will prevent the majority of accidents from occurring. Conversely, investigation of the vast majority of accidents usually indicates that an operator has failed to apply one or more of these principles to a given situation or has failed to follow an operating or safety rule.

#### **B. Basic Unsafe Driving Habits**

A discussion of defensive driving principles and preventability cannot begin without a discussion of what was considered to be basic safe driving habits. These habits are vital to accident prevention and apply in any given situation.

##### **1. Steering Wheel Grip/Driving Posture**

The proper and professional way to grip the steering wheel is at the 3 and 9 o'clock position with thumbs folded outward. One handed driving and driving by holding the spokes of the wheel is improper. Studies have shown that improper steering wheel grip reduces range of motion in emergency steering situations, increases reaction time, and does not provide for full emergency counter steering capability. Additionally, improper steering wheel grip is the cause of 90% of operator hand/finger injuries resulting from striking potholes or other objects in the road. As important as steering wheel grip, is driving posture. Professionals must sit in an erect position and refrain from leaning or slouching.

##### **2. Attention While Driving**

Driving a bus requires the full attention of the operator. Distractions such as paperwork, eating, drinking, talking, counting money, etc. are unacceptable driving habits just waiting for an accident to occur.

**3. Scanning the Road**

Operators are taught proper scanning techniques which are vital to safe operation. Operators must use their eyes to scan the road ahead for hazards as well as scanning their mirrors every three to five seconds to maintain a cushion of safety around their vehicle.

**4. Maintaining a Cushion of Safety**

Operators are taught that the basic premise of safe driving is to maintain a cushion of safety around their vehicle. This cushion of safety or open space allows them to perceive, react, and take defensive action in any situation. Key principles in maintaining a cushion of safety include:

- a) The four-second following distance rule (under ideal conditions.)
- b) Adjusting speed and following distance to road conditions.
- c) Maneuvering bus so as not to drive next to someone if it can at all be avoided.
- d) Proper use of mirrors to identify tailgaters and other undesirable driving situations in or around their bus.

**C. Definition of a Professional Defensive Driver**

All new NJT operators are trained and rigorously taught that as professional operators they are held to much higher standards than the typical auto driver. The following definitions of a professional defensive driver should be applied to all accidents in determining preventability.

"A professional defensive driver is one who commits no driving errors him/her self and makes allowances for the lack of skill or for improper practices of others. A defensive driver adjusts his/her own driving to compensate for unusual weather, road and traffic conditions, and is not tricked into an accident by the unsafe acts of pedestrians and/or other drivers. By being alert to accident producing situations, the professional defensive driver recognizes the need for preventive action in advance and takes necessary precautions to prevent the accident. As a defensive driver, he/she knows when it is necessary to slow down, stop, or yield the right of way to avoid involvements."

## **II. EVIDENCE**

### **A. Introduction**

Determining accident preventability is a process that requires that the person making the determination have all possible information available in his/her possession. Ideally, this information should be in the person's possession prior to having any hearing with the operation involved.

### **B. Witness Statements**

Witness reports are an important source of evidence in determining preventability and can be obtained through the Claims Department and should be used for review of serious accidents. The practicality of obtaining these statements for minor accidents should be considered because of time frames involved. While witness reports are a vital part of determining preventability, they ideally should be used in conjunction with other evidence to reach a conclusion. The following should be kept in mind regarding witness statements:

1. A single witness statement either pro or con should not be the single factor in determining a case's preventability unless that statement is supported by other evidence.
2. Multiple witness statements in the same vein should be considered to have more weight than a single statement. Multiple witness statements in the same vein supported by physical or other evidence strengthen any conclusions coming out of review of statements and evidence.

### **C. Police Reports**

Standard accident reporting typically done by the police should be used as a tool in determining preventability whenever possible. However, police reports should not be the sole source of determining preventability. The following should be kept in mind regarding police reports:

1. A finding on a police report that either driver was at fault should not automatically exonerate either party. Caution should be used when a summons is written or received at a later date because of statements/charges made by either party.

2. Traffic citations issued at the scene should be given serious consideration in determining preventability. Because of evidentiary procedures, citations are generally given out only when a preponderance of evidence warrants them. Therefore, a citation should be given serious weight when determining preventability.

D. Photographs and Sketches

The old saying, "one picture is worth a thousand words," is still the rule in accident investigation. Whenever possible, copies of photos and field sketches should be used and reviewed before determining preventability. However, caution must be used in reviewing photos. Picture quality and lighting conditions can alter impressions of an accident scene or damage.

However, reviewers must reconcile the extent of damage appearing in the photos with what is reported in the operator's report. Damage is frequently trivialized in an operator's statement.

E. Other Reports

Other reports typically available include Regional Supervisor, Claims and Safety Department reports. These reports are readily accessible upon request.

F. Visit to the Accident Scene

On serious accidents, a visit to the accident scene is important in understanding the dynamics of the bus operator and the operating environment in which the accident occurred. Upon request, the Safety Department will engage in accident reenactments where situations warrant such action.

G. Mitigating Factors

Various factors may come into play in any given accident. A fair and impartial accident evaluator must consider these factors within the totality of all the evidence available.

1. Glare

Generally considered controllable by the operator, except in rare and very severe cases.

2. Shadows

Generally considered part of the operating environment to which the professional operator must adjust.

3. Limited Visibility

Considered a significant part of the operating environment to which the professional operator must adjust.

4. Weather

Considered a significant part of the operating environments to which the professional operator must adjust.

5. Road Conditions

Wet or snow covered roads should not be considered a mitigating factor unless it could be demonstrated that conditions were so severe that a professional operator could not have avoided the accident by using proper driving techniques or such severe condition was hidden and unknown to the operator prior to the accident.

6. Environmental Hazards

Environmental hazards such as downed stop signs or areas that pedestrians continually jay walk in are not considered mitigating factors. In fact, admission of such by an operator is an admission that the operator is aware of the dangers in the area and should have been compensating for such hazards. Weight should be given to unknown hazards that the operator was not aware of and could not compensate for.

7. Mechanical Failure

Mechanical failure should be considered a mitigating factor if the defect contributed significantly to the accident and the defect was unknown to the operator at the time of the accident. Accidents in which the operator was aware of a defect and failed to report it are considered preventable to the operator.

NOTE: Long brakes should not be automatically considered to be mechanical failure unless the condition occurs immediately after pullout or shortly thereafter.

8. Speeding

Excessive speed may be considered a major contributing factor to an accident and/or a factor contributing to the severity of an accident. In assessing the impact of speed on an occurrence, consideration shall be given to weather conditions and the area being traveled in at the time of the accident. Driving at the posted legal limit can be considered excessive if traffic/weather conditions are poor.

H. Conclusion

The above conditions, which constantly change, are recognized by the professional operator, as factors that must be compensated for and in most cases do not relieve the operator of his/her responsibility.

### **III. DEFENSIVE DRIVING PRINCIPLES AND GUIDELINES ON ACCIDENT PREVENTABILITY**

#### **A. Rollback Accidents**

##### **Defensive Driving Principles**

When stopped on a hill, stop far enough away from the vehicle in front as to be able to see that vehicle's rear tires.

- Depress brake pedal to floor and hold. Move foot to accelerator when ready to move bus.

##### **Accident Preventability Guidelines**

- Accidents in which a bus rolls back and strikes a vehicle behind are almost always preventable.
- Accidents in which a vehicle rolls back into a bus should be considered non-preventable.

#### **B. Bus Rear ended**

##### **Defensive Driving Principles**

- Avoid abrupt stops.
- Engage four-way flashers when approaching railroad crossings, tollbooths, and when making highway stops.
- Use directional signals when pulling into and out of stops, turning and changing lanes.
- Refrain from nosediving into bus stops. This leaves the rear of the bus angled into traffic and increases the probability of being struck in the rear. If stops are blocked, operator should keep his/her bus straight and as close to the right side of the road as possible.
- If broken down, pull bus as far to the right side of the road as possible. Install reflector triangles, turn on four-way flashers, and do not open engine compartment until recovery truck arrives.

- Avoid pulling over to the side of the highway or street unless such location is an approved layover location or if such stop is necessary to conduct company business. Engage four-way flashers when shoulders are not provided. Entire bus should be pulled off the road and onto the shoulders when shoulders are not provided. Entire bus should be pulled off the road onto the shoulder when shoulders are available.

#### Accident Preventability Guidelines

Accidents in which the buses are rear-ended are non-preventable unless the operator has contributed to the accident by failing to exercise the above precautions.

#### **C. Backing Accidents**

##### Defensive Driving Principles

- Avoid backing up unless absolutely necessary and if possible seek assistance.
- Operator must check and verify clearances for him/her self.
- Use four-way flashers.
- Sound horn before backing.
- Scan mirrors.

#### Accident Preventability Guidelines

Backing up a bus is always a potential hazard. Operators should use prudent care whenever backing up even while using a guide. Striking a fixed object, pedestrian, or vehicle is generally considered preventable unless special circumstances are found.

#### **D. Front End Collisions**

##### Defensive Driving Principles

- Maintain a proper following distance at all times and under all conditions.
- To constantly scan near and far to anticipate obstructions and changes in traffic flow. This includes being prepared for obstructions either in plain view or hidden by the crest of a hill or curve in the road.

- Maintain a minimum of a four-second following distance at all times. Adjust following distance and speed to match weather and road conditions. During adverse weather (rain/snow) a six-second following distance should be used.

#### Accident Preventability Guidelines

- Accidents of this are almost always preventable by adjusting speed and following distance to road conditions and by paying attention to the road ahead.

### **E. Passing**

#### Defensive Driving Principles

- Pass only when needed and avoid driving situations that require frequent passing movements.
- Avoid abrupt lane changes.
- Before passing, check mirrors, energize directional signals, and start to pass only if the road is clear.
- Adjust speed and signal other drivers of intentions to pass.

#### Accident Preventability Guidelines

- Failure to pass safely indicates poor judgement on the part of the operator. Unusual actions of other drivers or traffic may appear to exonerate the operator. However, the entire passing maneuver is voluntary and, therefore, the burden of safe passing rests on the operator. Passing accidents are generally preventable.

### **F. Intersections**

#### Defensive Driving Principles

- Be aware that all intersections are potential sites for accidents.
- Pay attention to all traffic signals and signs.
- Be prepared to stop or cover the brake when going through intersections.
- Anticipate that other vehicles and pedestrians may enter your right of way in or around intersections.

- Lean in the seat to get a clear view around objects such as trees, poles, and signposts.
- Use peripheral vision to anticipate the movements of other vehicles that may enter your right of way.

#### **Accident Preventability Guidelines**

It is the responsibility of operators to approach, enter, and cross intersections prepared to avoid accidents that might occur. Complex traffic movement, blind intersections, or failure of the other driver to conform to traffic control devices does not automatically exonerate the bus operator from preventability in connection with intersection accidents. Intersection accidents can be judged preventable if the operator has done nothing more than abide by traffic regulations.

#### **G. Left Turns**

##### **Defensive Driving Principles**

- Anticipate need for left-hand turn and move into the lane well ahead of the turn. Signal well ahead of the turn using your directional signals.
- Before starting turn, be sure that:
  - There is sufficient break in on-coming traffic to allow time for a complete safe turn.
  - There is sufficient space in the street being turned into so the bus does not become "hung up".
  - Use mirrors both before and during turn to ensure clearance on both sides of the bus.
- Complete turn and ensure the entire length of the bus is clear of the intersection.

#### **Accident Preventability Guidelines**

Left-hand turns require good judgement on the part of the operator. Left-hand turns are completely voluntary; therefore, the burden of the turn rests with the operator. Accidents resulting from left-hand turns are almost always preventable unless special circumstances are present. Any time a vehicle crosses opposing traffic, the burden of judgement is upon the person turning.

## **H. Right Turns**

### **Defensive Driving Principles**

- Position bus properly before coming to an intersection.
- Signal intent to turn well ahead of the turn by using the directional signals.
- Block the right side of the bus so other vehicles cannot pass or encroach on the right side of the bus.
- Line right shoulder up with curb line or edge of car or object when turning right.
- Check mirrors constantly for other vehicles or pedestrians attempting to squeeze around the right side of the bus.

### **Accident Preventability Guidelines**

Collisions with vehicles attempting to pass on the right are normally preventable. Striking fixed objects or cars are almost always preventable when committed during right hand turns.

## **I. Being Passed**

### **Defensive Driving Principles**

- Scan mirrors every three - five seconds to spot autos attempting to pass on the right or left side. Slow down and yield. Yielding is stressed as a defensive driving technique to be followed as so not to become trapped by the overaggressive driving of others.
- Observe left or right front tires of vehicles ahead for movement. This will indicate a sudden lane change.
- Stay to the right hand side whenever possible.
- Be prepared to yield / slow down.

### **Accident Preventability Guidelines**

Sideswipe and cut off accidents are common and normally preventable in most circumstances. Such accidents should be considered preventable if the operator failed to yield/slow.

**J. Lane Encroachment**

**Defensive Driving Principles**

- Scan ahead and anticipate encroachment situations such as lane merges, construction zones, on / off ramps.
- Slowing down and yielding to other traffic is a prescribed technique to avoid merging or encroaching type accidents.
- Use mirrors and scan every three to five seconds to anticipate encroachment from other vehicles around the bus.
- By anticipating encroachment situations ahead of time and yielding the right of way, the professional operator can avoid involvement in merging and sideswipe type of accidents.

**Accident Preventability Guidelines**

Accidents involving encroachments indicate unwillingness to yield on the part of the bus operator. Such accidents should be considered preventable if the operator has failed to yield or drop back.

**K. Head-On Collisions**

**Defensive Driving Principles**

- If a vehicle has entered your lane, sound horn, move to the right, slow down, and stop.
- Never move to the left - doing so can subject you to a more severe front-end collision with another on-coming vehicle.

**Accident Preventability Guidelines**

Head-on collisions in which another vehicle has encroached into the traffic lane of the operator are generally non-preventable providing that the operator has followed the principles above.

**L. Fixed Objects**

**Defensive Driving Principles**

- Slow down and allow adequate space around your vehicle to allow for clearance while driving or turning. Check mirrors every three to five seconds before making any bus maneuver.

**Accident Preventability Guidelines**

Collisions with fixed objects are almost always preventable unless special circumstances are found.

**M. Injury On Bus**

**Defensive Driving Principles**

- Passenger injuries on the bus such as being thrown out of seat or falls resulting from sudden use of brakes indicates failure of the operator to anticipate changing traffic patterns and to drive defensively.
- Scan ahead and anticipate situations that will require you to stop before needing to make a panic stop.
- Senior citizens and disabled passengers should have a firm handhold before starting the bus in motion. Avoid situations that would require sudden acceleration or deceleration.
- Do not start bus in motion while a passenger is standing forward of the white line.

**Accident Preventability Guidelines**

Passenger accidents are preventable if the operator has caused the bus to be abruptly stopped or unnecessarily or violently turned for a traffic situation that could have been readily foreseen had the driver been driving defensively.

**N. Boarding And Alighting Accidents**

**Defensive Driving Principles**

- Discharge and pick up passengers in safe locations only.
- Be sure paths from front and rear doors are clear of all obstacles.
- Pull bus six inches from curb to avoid stretch stops.
- Keep bus straight at all times, don't nosedive.
- Do not board or alight passengers in an area where it is unsafe for them to do so.
- Scan curbside mirror after boarding/alight passengers to ensure that every one is clear of the bus before resuming operation. Special attention must be placed on this during times of snow / ice to ensure that passengers do not fall under or along side of the bus while alighting.

**Accident Preventability Guidelines**

Boarding and alighting accidents are usually not the fault of the operator unless it is demonstrated that the operator discharged the passenger in an unsafe location when a safer location was available or failed to ensure that the passenger was clear of the bus before restarting.

**O. Pedestrians**

**Defensive Driving Principles**

- Expect the unexpected from pedestrians including jay walking and other unsafe behavior.
- Anticipate pedestrian movement and adjust speed and position of bus any time pedestrians are in or near bus. Stop, sound horn, or take other appropriate action.
- Slow down and be particularly cautious when traveling through areas, which are heavily used by pedestrians.

### **Accident Preventability Guidelines**

- Accidents in contact are made between the front of the bus and the pedestrian is generally considered preventable unless special circumstances are involved.
- Accidents in which the rear wheel strikes the pedestrian requires special investigation into the circumstances.
- Accidents in which a pedestrian walks into the side or the back of a stopped bus are generally considered non-preventable.

### **P. Pulling Into Bus Stops / Discharging**

#### **Defensive Driving Principles**

- Scan ahead to avoid panic stops to pick up passengers.
- Use directional signals and scan right side mirror for vehicles on right before pulling into bus stops.
- Pull into stop, ideally, six inches from curb.
- If stop is blocked, do not nosedive front of bus into stop. Keep bus straight and in the street as far to the right as possible.
- Never discharge a passenger when stopped in the left lane.
- Do not discharge passengers when stopped in the right lane if space exists for a vehicle to pass on the right at the same time.

### **Accident Preventability Guidelines**

Accidents involving the bus being rear-ended should be preventable if the operator has nose dived or failed to give proper warning to other drivers of his/her intent to pull into a stop.

**NOTE:** Illegally parked vehicles in bus stops, which are struck by the bus, do not exonerate the operator from preventability.

**Q. Pulling Out Of Bus Stops**

**Defensive Driving Principles**

- Scan rear view and curbside mirrors to ensure passengers are clear of rear door and side of bus before moving. This is especially critical during times when snow or ice may hinder the passengers getting safely to the sidewalk.
- Ensure alighting front door passengers are clear before moving bus.
- Scan street-side mirror and turn on directional signals before turning back into the traffic flow.
- Ensure that adequate space is available before re-entering the traffic flow.

**Accident Preventability Guidelines**

Accidents involving the bus striking an object, vehicle, or alighting passengers are almost always preventable unless special circumstances are present.

- Re-entering the traffic flow from a stop is a voluntary maneuver under the control of the operator. Sideswipe accidents while re-entering the traffic flow are the burden of the operator.
- Accidents involving an auto turning right in front of a stopped bus are considered non-preventable. However, such an accident occurring after the bus has resumed movement is the responsibility of the operator.

**R. Opening Door Accidents**

**Defensive Driving Principles**

- Position bus in right lane as to allow an adequate cushion of space between parked vehicles and the curbside of the bus.
- Scan parked vehicles and anticipate that an auto door can open at any time.
- Scan and recognize the early signs of a potential open door accident, such as: parked vehicle with person sitting in the driver's seat, parked vehicle idling with exhaust smoke visible from tailpipe, front wheels of parked vehicle turned to the left. Take defensive action, cover brake and slow down, use horn, move bus to the left if possible.

#### **Accident Preventability Guidelines**

- Preventability should be strongly considered when contact occurs between an open door near the front or right front side of the bus.
- Accidents in which the car door is opened after the front of the bus passes the auto are generally non-preventable.

#### **S. Breakdown/ Change/ Layover Accidents**

##### **Defensive Driving Principles**

- Layover in approved layover areas only. Refrain from stopping on the side of streets / roads unless for official company business.
- When stopped on the side of the road for a breakdown, engage four-way flashers and install emergency triangles.
- When attempting a changeover, the changeover bus shall pull in front of the disable bus to changeover passengers. Operators shall take appropriate action to ensure the safety of passengers while they change buses.

#### **Accident Preventability Guidelines**

Accident occurring because of failure to adhere to the above shall be considered preventable.

#### **T. Right Turn On Red Accidents**

##### **Defensive Driving Principles**

- Operators making right hand turns at red lights should only do so at intersections that are approved for this purpose.
- Operators attempting right hand turns on red should only do so at intersections and at times that allow for these turns to be made safely. Operators shall be aware of the inherent difficulty involved in successfully making a right turn on red with a bus because of its acceleration and turn characteristics.
- Operators attempting right turns on red shall do so only when there is an adequate break in traffic and the intersection is clear of pedestrians.

### Accident Preventability Guidelines

- A right turn on red is a maneuver completely under the judgement of the operator. Vehicles and pedestrians travelling with the green light have the uncontested right-of-way. Therefore, any accident occurring during such a maneuver shall be deemed preventable unless special circumstance can be found to exonerate the operator.
- In cases where a bus is rear-ended as it completes a right turn on red shall be considered preventable since such accident would indicate faulty judgement on the part of the operator.

## **IV. UNREPORTED ACCIDENTS**

### **A. Introduction**

The investigation of unreported accidents presents a unique challenge. These challenges involve the following factors that should be kept in mind:

1. Failure to Report an Accident - Operators may attempt to keep from reporting a minor accident especially if such accident involves minor damage to an unoccupied vehicle.
2. Fraudulent Claim - Occasionally a motorist may fraudulently claim contact between a bus and auto or object.
3. Unknown Accident - On occasion, minor accidents can occur that the operator truly does not know about. These accidents are usually minor contact between the rear of the bus and or auto or object.

**B. Investigating the Unreported Accident**

The following steps are suggested to investigate an unreported accident:

1. Attempt to obtain a police report (if one has been made by the motorist.)
2. Attempt to determine credibility of the motorist's claim (was a bus in the area at the time).
3. Attempt to evaluate damage to auto from claim agents, photos, or from Regional Supervisor feedback. Is damage fresh or is it old damage?
4. Attempt to get witness statements if available.
5. Examine bus for evidence of fresh damage, dents, or paint rub off from auto in question.

**C. Determining Preventability**

1. Failure of the operator to realize he/she has made contact with other vehicle or object does not exonerate the operator from responsibility. In cases where it is established that an accident did occur, it should be judged using the criteria in Section III.
2. Cases where the operator attempts to hide the facts of the accident or purposely fails to report an accident should be judged using the same criteria in Section III. Additionally, failing to report an accident shall result in the application of appropriate discipline for that offense.
3. Operator shall not be charged in cases where it can be established that a motorist or other person is attempting to process a fraudulent claim.

## SECTION II

# **Accident Grading & Preventability Guidelines**

Accident Grading and Preventability Guidelines			
Accident Description	Defensive Driving Principles	Transportation Service Guide/Safety Notices	NJ Title 39 – Traffic Laws/FMCSR
Vehicle Struck Bus in Rear	<ul style="list-style-type: none"> <li>• Avoid abrupt stops.</li> <li>• Engage four-way flashers when approaching railroad crossings, tollbooths and when making highway stops.</li> <li>• Use directional signals when pulling into and out of stops, turning and changing lanes.</li> <li>• Refrain from nose-diving into bus stops. This leaves the rear of the bus angled into traffic and increases the probability of being struck in the rear. If stops are blocked, operator should keep his/her bus straight and as close to the right side of the road as possible.</li> <li>• If broken down, pull bus as far to the right side of the road as possible. Install reflector triangles, turn on four-way flashers, and <u>do not open engine compartment until recovery truck arrives.</u></li> <li>• Avoid pulling over to the side of the highway or street unless such location is an approved layover location or if such stop is necessary to conduct company business. Engage four-way flashers when shoulders are not provided. Entire bus should be pulled off the road onto the shoulder when shoulders are available.</li> </ul>	#417 Bus Stops. #431 Disabled Bus Procedures.	Title 49 CFR 392.22 (a), (b).

<b>Backing Accidents</b>	<ul style="list-style-type: none"> <li>• Avoid backing up unless absolutely necessary and if possible seek assistance.</li> <li>• Operator must check and verify clearances for him/her self.</li> <li>• Use four-way flashers.</li> <li>• Sound horn before backing.</li> <li>• Scan mirrors.</li> </ul>	<b>#513 Backing Buses.</b>	<b>Title 39, 4-127</b>
<b>Front End Collisions/Struck Other in Rear</b>	<ul style="list-style-type: none"> <li>• Maintain a proper following distance at all times and under all conditions.</li> <li>• Constantly scan near and far to anticipate obstructions and changes in traffic flow. This includes being prepared for obstructions either in plain view or hidden by the crest of a hill or curve in the road.</li> <li>• Maintain a minimum of a four-second following distance at all times. Adjust following distance and speed to match weather and road conditions. During adverse weather (rain/snow) a six-second following distance should be used.</li> </ul>		<b>Title 39, 4-9</b>
<b>Bus Passing Other Vehicle</b>	<ul style="list-style-type: none"> <li>• Pass only when needed and avoid driving situations that requires frequent passing movements.</li> <li>• Avoid abrupt lane changes.</li> <li>• Before passing, check mirrors, put on directional signals then start to pass only if the road is clear.</li> </ul> <p>Adjust speed and signal other drivers of intentions to pass.</p>	<b>#508 Directional Signals and Mirrors.</b>	<b>Title 39, 4-85, 4-86, 4-87, 4-88, 4-88b.</b>

<b>Intersection</b>	<ul style="list-style-type: none"> <li>• Be aware that all intersections are potential sites for accidents.</li> <li>• Pay attention to all traffic signals and signs.</li> <li>• Be prepared to stop or cover the brake when going through intersections.</li> <li>• Anticipate that other vehicles and pedestrians may enter your right-of-way in or around intersections.</li> <li>• Lean in the seat to get a clear view around objects such as trees, poles and signposts.</li> <li>• Use peripheral vision to anticipate the movements of other vehicles that may enter your right-of-way.</li> </ul>		<b>Title 39, 4-81, 4-119a &amp; 4-119b, 4-90.</b>
<b>Left Turn</b>	<ul style="list-style-type: none"> <li>• Anticipate need for left-hand turn and move into the lane well ahead of the turn. Signal well ahead of the turn using your directional signals.</li> <li>• Before starting turn, be sure that: <ul style="list-style-type: none"> <li>–There is sufficient break in on-coming traffic to allow time for a complete safe turn.</li> <li>–There is sufficient space in the street being turned into so the bus does not become "hung up".</li> <li>–Use mirrors both before and during turn to ensure clearance on both sides of the bus.</li> </ul> </li> <li>• Complete turn and ensure the entire length of the bus is clear of the intersection.</li> </ul>	<b>#519 Turns.</b>	<b>Title 39, 4-123 – 4-126.</b>

<b>Right Turn</b>	<ul style="list-style-type: none"> <li>• Position bus properly before coming to an intersection.</li> <li>• Signal intent to turn well ahead of the turn by using the directional signals.</li> <li>• Block the right side of the bus so other vehicles cannot pass or encroach on the right side of the bus.</li> <li>• Line right shoulder up with curb line or edge of car or object when turning right.</li> <li>• Check mirrors constantly for other vehicles or pedestrians attempting to squeeze around the right side of the bus.</li> <li>• Operators making right hand turns at red lights should only do so at intersections that are approved for this purpose.</li> <li>• Operators attempting right hand turns on red should only do so at intersections and at times that allow for these turns to be made safely. Operators shall be aware of the inherent difficulty involved in successfully making a right turn on red with a bus because of its acceleration and turning characteristics.</li> <li>• Operators attempting right turns on red shall do so only when there is an adequate break in traffic and the intersection is clear of pedestrians.</li> </ul>	<b>#519 Turns.</b>	<b>Title 39, 4- 115a, 4-115b, 4-116, 4-123 – 4-126.</b>
-------------------	---	--------------------	---

<b>Other Vehicle Passing Bus</b>	<ul style="list-style-type: none"> <li>• Scan mirrors every three to five seconds to spot autos attempting to pass on the right or left side.</li> <li>• Slow down and yield. Yielding is stressed as a defensive diving technique to be followed as so not to become trapped by the overaggressive driving of others.</li> <li>• Observe left or right front tires of vehicles ahead for movement. This will indicate a sudden lane change.</li> <li>• Stay to the right hand side whenever possible.</li> <li>• Be prepared to yield and slow down.</li> </ul>		Title 39, 4-83, 4-87, 4-88, 4-88a, 4-91, 4-92.
<b>Merging/Lane Encroachment</b>	<ul style="list-style-type: none"> <li>• Scan ahead and anticipate encroachment situations such as lane merges, construction zones, on/off ramps.</li> <li>• Slowing down and yielding to other traffic is a prescribed technique to avoid merging or encroaching type accidents.</li> <li>• Use mirrors and scan every three to five seconds to anticipate encroachment from other vehicles around the bus.</li> <li>• By anticipating encroachment situations ahead of time and yielding the right of way, the professional operator can avoid involvement in merging and sideswipe type of accidents.</li> </ul>		Title 39, 4-87, 4-88
<b>Head-on Collision</b>	<ul style="list-style-type: none"> <li>• If a vehicle has entered your lane, sound horn, move to the right, slow down, and stop.</li> <li>• Never move to the left - doing so can subject you to a more severe front-end collision with another on-coming vehicle.</li> </ul>		Title 39, 4-82.1, 4-85.1, 4-86, 4-88
<b>Fixed Object/Mirror Accident</b>	<ul style="list-style-type: none"> <li>• Slow down and allow adequate space around your vehicle to allow for clearance while driving or turning. Check mirrors every three to five seconds before making any bus maneuver.</li> <li>• Always maintain a good cushion of safety.</li> </ul>	#419 Obstruction or Hazards.	

<b>Injury on Board</b>	<ul style="list-style-type: none"> <li>• Customer injuries on the bus such as being thrown out of seat or falls resulting from sudden use of brakes indicates failure of the operator to anticipate changing traffic patterns and to drive defensively.</li> <li>• Scan ahead and anticipate situations that will require you to stop before needing to make a panic stop.</li> <li>• Senior citizens and disabled customers should have a firm handhold before starting the bus in motion. Avoid situations that would require sudden acceleration or deceleration.</li> <li>• Do not start bus in motion while a customer is standing forward of the white line.</li> </ul>	<b>#430 Door Operation.</b>	<b>Title 49 CFR 392.62.</b>
<b>Boarding &amp; Alighting Injury</b>	<ul style="list-style-type: none"> <li>● Discharge and pick up customers in safe locations only.</li> <li>• Be sure paths from front and rear doors are clear of all obstacles.</li> <li>• Pull bus six inches from curb to avoid stretch stops.</li> <li>• Keep bus straight at all times and don't nosedive.</li> <li>• Do not board or alight customers in an area where it is unsafe for them to do so.</li> <li>• Scan curbside mirror after boarding/alight customers to ensure that every one is clear of the bus before resuming operation. Special attention must be placed on this during times of snow / ice to ensure that passengers do not fall under or along side of the bus while alighting.</li> </ul>	<b>#417 Bus Stops. #430 Door Operation.</b>	<b>Title 39, 4-65</b>
<b>Pedestrians &amp; Bicycles</b>	<ul style="list-style-type: none"> <li>• Expect the unexpected from pedestrians including jay walking and other unsafe behaviors.</li> <li>• Anticipate pedestrian movement and adjust speed and position of bus any time pedestrians are in or near bus. Stop, sound horn, or take other appropriate action.</li> <li>• Slow down and be particularly cautious when traveling through areas, which are heavily used by pedestrians.</li> </ul>		<b>Title 39, 4-36,</b>

<b>Bus Pulling Into/From Stop</b>	<ul style="list-style-type: none"> <li>• Scan ahead to avoid panic stops to pick up customers.</li> <li>• Use directional signals and scan right side mirror for vehicles on right before pulling into bus stops.</li> <li>• Pull into stop, ideally, six inches from curb.</li> <li>• If stop is blocked, do not nosedive front of bus into stop. Keep bus straight and in the street as far to the right as possible.</li> <li>• Never discharge a customer when stopped in the left lane.</li> <li>• Do not discharge customers when stopped in the right lane if space exists for a vehicle to pass on the right at the same time.</li> <li>• Scan rear view and curbside mirrors to ensure customers are clear of rear door and side of bus before moving. This is especially critical during times when snow or ice may hinder the customers getting safely to the sidewalk.</li> <li>• Ensure customers alighting the front and/or rear doors are clear before moving bus.</li> <li>• Scan street-side mirror and turn on directional signals before turning back into the traffic flow.</li> <li>• Ensure that adequate space is available before re-entering the traffic flow.</li> </ul>	<b>#417 Bus Stops.</b>	
<b>Vehicle Opened Door Into Bus</b>	<ul style="list-style-type: none"> <li>• Position bus in right lane as to allow an adequate cushion of space between parked vehicles and the curbside of the bus.</li> <li>• Scan parked vehicles and anticipate that an auto door can open at any time.</li> <li>• Scan and recognize the early signs of a potential open door accident, such as: parked vehicle with person sitting in the driver's seat, parked vehicle idling with exhaust smoke visible from tailpipe, front wheels of parked vehicle turned to the left. Take defensive action, cover brake and slow down, use horn, move bus to the left if possible.</li> </ul>		

<b>Bus Struck Parked Vehicle</b>	<ul style="list-style-type: none"> <li>• Slow down and allow adequate space around your vehicle to allow for clearance while driving or turning. Check mirrors every three to five seconds before making any bus maneuver.</li> </ul>	<b>#415 Obstruction or Hazards.</b>	
<b>Vehicle Pulled in Front of Bus</b>	<ul style="list-style-type: none"> <li>• Scan street-side mirror and turn on directional signals before turning back into the traffic flow.</li> <li>• Ensure that adequate space is available before re-entering the traffic flow.</li> </ul>	<b>#505 Directional Signals and Mirrors. #417 Bus Stops. #430 Door Operation.</b>	

# **General Defensive Driving Principles and Guidelines on Accident Preventability**

## **1. Steering Wheel Grip/Driving Posture**

The proper and professional way to grip the steering wheel is at the 3 and 9 o'clock position with thumbs folded outward. One handed driving and driving by holding the spokes of the wheel is improper. Studies have shown that improper steering wheel grip reduces range of motion in emergency steering situations, increases reaction time, and does not provide for full emergency counter steering capability. Additionally, improper steering wheel grip is the cause of 90% of operator hand/finger injuries resulting from striking potholes or other objects in the road. As important as steering wheel grip, is driving posture. Professionals must sit in an erect position and refrain from leaning or slouching.

## **2. Attention While Driving**

Driving a bus requires the full attention of the operator. Distractions such as paperwork, eating, drinking, talking, counting money, etc. are unacceptable driving habits just waiting for an accident to occur. (Refer to Transportation Service Guide Section III, #428, Attention While Driving and #429 Reading, Radios, on Duty).

## **3. Scanning the Road**

Operators are taught proper scanning techniques that are vital to safe operation. Operators must use their eyes to scan the road ahead for hazards as well as scanning their mirrors every three to five seconds to maintain a cushion of safety around their vehicle.

## **4. Maintaining a Cushion of Safety**

Operators are taught that the basic premise of safe driving is to maintain a cushion of safety around their vehicle. This cushion of safety or open space allows them to perceive, react, and take defensive action in any situation. Key principles in maintaining a cushion of safety include:

- a. The four-second following distance rule (under ideal conditions).
- b. Adjusting speed and following distance to road conditions.
- c. Maneuvering bus so as not to drive next to someone if it can at all be avoided.
- d. Proper use of mirrors to identify tailgaters and other undesirable driving situations in or around their bus.

**5. Defensive Driver Training**

All new NJT Operators are trained and rigorously taught that as professional operators they are held to much higher standards than the typical auto driver. The following definitions of a professional defensive driver should be applied to all accidents in determining preventability:

"A professional defensive driver is one who commits no driving errors him/her self and makes allowances for the lack of skill or for improper practices of others. A defensive driver adjusts his/her own driving to compensate for unusual weather, road and traffic conditions, and is not tricked into an accident by the unsafe acts of pedestrians and/or other drivers. By being alert to accident producing situations, the professional defensive driver recognizes the need for preventive action in advance and takes necessary precautions to prevent the accident. As a defensive driver, he/she knows when it is necessary to slow down, stop, or yield the right of way to avoid involvements."

**6. Training Manuals – Refer to Section III**

- a. Operational Training - Professional Operator Workbook Defensive Driving Concepts and Techniques
- b. Bus & Light Rail Safety – Defensive Driving Concepts and Techniques

**7. Federal Motor Carrier Safety Regulations – Refer to Section III**

- a. 49 CFR PART 383 Section 383.110 General Requirements
- b. 49 CFR PART 383 Section 383.111 Required Knowledge
- c. 49 CFR PART 383 Section 383.113 Required Skills
- d. 49 CFR PART 392 Section 392.22 Emergency Signals; Stopped Vehicles
- e. 49 CFR PART 392 Section 392.62 Safe Operation, Buses

**8. Safety Bulletins/Alerts & Notices**

Periodically, the Safety Department issues Bulletins and Alerts to garages that identify specific unsafe activities and procedures to reduce vehicle related accidents. A review of these materials should be completed to identify current practices and procedures relative prior grading any accident. The Safety Department may be contacted if needed to review current information available.

# **Professional Operator Workbook**

**Defensive Driving  
Concepts and  
Techniques...**

# **NJ TRANSIT BUS OPERATIONS OPERATIONAL TRAINING**

## **SUMMARY DEFENSIVE DRIVING CONCEPTS AND TECHNIQUES**

### **INTRODUCTION**

This topic is the most important responsibility you have as an operator. You cannot be a safe operator without using defensive driving concepts and techniques.

#### **I. DEFENSIVE DRIVING CONCEPTS AND TECHNIQUES**

- A. Defensive driving concepts and techniques separates the professional Operator from other drivers. They will also make you a safer driver of your own car. Schedules are important, but safety is the #1 priority in the company.**
- B. Three Principles of Defensive Driving**
  - 1. Anticipation. As a pro, you must anticipate situations which present accident hazards.**
  - 2. Perception. You must see the hazard as early as possible.**
  - 3. Action. You must take the appropriate action to avoid the hazard.**
- C. Eight factors impacting safe bus operation:**
  - 1. The Operator. His/her skills, physical condition and attitude; these go hand in hand - you must be physically fit and mentally alert.**
  - 2. Customers. They can be a distraction. Always remember they are your responsibility. Treat them the way you want to be treated.**
  - 3. Pedestrians. Because they can change direction more quickly than a vehicle, they give you less reaction time.**
  - 4. Other Drivers, including bicyclists. You must anticipate their actions and demonstrate road courtesy.**
  - 5. Vehicle Condition and Preparation. It is essential that you take the time to perform your pre-trip inspection daily.**

7/15/96

## **SUMMARY - DDCT (Cont'd.)**

6. **Vehicle Operation.** Remember, after you are qualified, it will take 2-3 years for you to become a professional operator.
7. **Environment.** Includes weather, construction, lighting, types of school zones, roadway and amount of traffic, etc.
8. **Emergency Procedures.** How well you know them can save lives.

**D. Definition of a defensive operator.**

One who prevents accidents by looking out for the mistakes of others and the presence of adverse driving conditions.

**E. Three human traits responsible for a great percentage of accidents are haste, impatience and anger.**

**F. You are concerned with the safety of customers, pedestrians, other motorists, and your own safety - of these, the customers' safety is most important.**

**G. Pre-trip inspections.**

1. **Unsafe and unreliable buses should not go out.**
2. **You have a responsibility to get buses fixed by reporting defects. Remember failure of another driver to do a Bus Condition Report doesn't relieve you of the responsibility.**

**H. Cushion of safety.**

A key element of safe driving is your ability to maintain a cushion of safety around your bus. This means you must adjust your position and speed to conditions.

The pre-trip inspection of brakes will help to ensure that you have that cushion of safety.

1. **The most important element in a cushion of safety is adequate following distance. This is also the first and most important defensive driving technique.**

Remember the need to increase following distance on wet roads, especially just after it starts to rain. Exhaust gases and oil float on top of the water until washed away, creating a skating rink effect.

7/15/96

## SUMMARY - DDCT (Cont'd.)

2. The four-second rule helps you maintain an adequate following distance.
3. Rear end collisions resulting from inadequate following distance are among our most dangerous and costly accidents. They are impossible to justify in court.
4. Remember your "overhead space." Make sure your bus will clear underpasses, bridges, tree branches, etc.

## **II. DEFENSIVE DRIVING**

- A. Avoiding a vehicle accident requires sufficient stopping distance. Three factors affect the distance you need to stop your bus.

1. Perception Time. The amount of time it takes to recognize or perceive hazard. For an alert driver, this is about 3/4 of a second.

Perception time is affected by: paying attention, distractions, knowing the route and surroundings, physical condition and health, amount of sleep, drugs/alcohol, keeping your eyes moving, sweeping mirrors.

2. Reaction Time. The amount of time after you perceive the danger and before you apply the brakes. For an alert driver in good physical condition, this is about 3/4 of a second.

Reaction time is affected by: mental attitude, age, physical condition and health, fatigue, amount of sleep, drugs/alcohol, posture in the seat, keeping foot over the brake when not accelerating, proper grip on steering wheel.

3. Braking Time. How long it takes to stop the bus after you apply the brakes. Braking time is affected by: speed, weather (ice, snow, water), mechanics of the brakes, weight of bus (number of customers), condition of road (gravel, cement, asphalt), leaves, condition of tires, proper use of brakes (not locking them up).
4. Insufficient stopping distance may cause you to slam on the brakes and, even though you avoid a collision, you may cause an on board customer fall/accident. Don't lock up brakes. Use controlled braking.

7/16/96

## **SUMMARY - DDCT (Cont'd.)**

### **B. Stopping time vs. distance.**

Time involved in perception, reaction, and braking is only important in understanding the distance you travel in that time.

The distance traveled during perception and reaction time is almost half the total stopping distance. At 55 mph you travel 70 feet per second.

### **C. Other defensive driving techniques besides an adequate following distance are:**

#### **1. Get the big picture.**

- a. Keep your eyes moving. Look for hazards: potholes, pedestrians, impaired drivers, etc.**
- b. Don't just focus on the vehicle ahead, scan far ahead and around you.**
- c. Don't get behind moving billboards that block your vision (trucks, buses, campers).**

#### **2. Mirror use.**

**Sweep inside and outside mirrors every 3-5 seconds.**

#### **3. Keep your foot over the brake when not accelerating.**

#### **4. Make sure they see you.**

**Get eye contact and use horn and lights if necessary. Always use your turn signals. Use 4-way flashers when required. Communicate.**

#### **5. Intersection care.**

- a. Intersections are known danger points - slow down when approaching them.**
- b. Obey traffic lights and signs - don't run amber lights.**
- c. Stale green light ahead means you must prepare to stop smoothly.**

**7/1 5/96**

## SUMMARY - DDCT (Cont'd.)

- d. Use left/right/left rule because traffic from the left gives you the least reaction time.
  - e. Check pedestrians as well as vehicular traffic.
  - f. Stop or yield if necessary.
  - g. If necessary, pull to corner to see traffic.
  - h. Position yourself properly for right turns.
  - i. On far side stops, pull all the way up so rear end of bus is not in the intersection.
- 6. Adjust speed and position to conditions.
  - 7. Give yourself an "out."
  - 8. Practice road courtesy.
- D. Dead Heading.
- 1. "Dead Heading" is a transit term meaning a bus operating without customers. But to the professional operator the term DEAD heading should have another meaning: It should serve as a warning and the need for caution.
  - 2. Our experience has shown that many serious accidents that have resulted in DEATH and major injuries to operators have occurred on DEAD heading trips, especially when returning to the garage.  
  
Remember, "chance takers" are "accident makers."
  - 3. Dead heading accidents occur when:
    - a. You are in a hurry or wish to get home or to your destination.
    - b. You speed.
    - c. You are tired.
    - d. You are inattentive or daydreaming.
    - e. Your defenses are down when not carrying customers.

7/15/96

## **SUMMARY - DDCT (Cont'd.)**

4. What can you do to prevent dead heading accidents?
  - a. Get the proper rest before you start to drive.
  - b. Give yourself time to pull out of the garage on time. Being late will tempt you to take chances to make up time.
  - c. Conduct a pre-trip inspection.
  - d. Know your route.
  - e. Slow down. Being in a hurry may mean you'll never get there.
  - f. Drive with caution as if you had a full load of customers.
  - g. Stay alert and drive defensively at all times. Don't let your defenses down. YOU are still on the bus whether or not customers are.
  - h. Keep alert to changing traffic conditions.

### **III. ACCIDENT**

#### **A. Your attitude.**

Your attitude affects your mental condition, which affects whether you have an accident.

#### **B. Types of accidents you may have.**

1. With other vehicles, including buses and bicyclists.
2. With pedestrians, including those who just got off the bus.
3. With customers during boarding, alighting, or while on board.
4. With fixed objects: poles, buildings, signs, trees, newspaper stands, parked cars, etc.

7/15/96

## SUMMARY - DDCT (Cont'd.)

### **C. Cost of traffic and customer accidents.**

1. We are self-insured and spend millions of dollars each year to pay off claims, especially since the settlements usually favor the claimant over us.
2. Every dollar spent on claims is not available for wages, benefits, new equipment, or improvements.
3. There are costs other than dollars:
  - a. Human suffering from injuries or death.
  - b. Time delay to customers, filling out reports, exchanging driver's information, etc.
  - c. Impact on operator's record - may cost you your job.
  - d. Negative public opinion - people won't want to ride with us.
  - e. Operator's emotional state after accident.
4. You must do your part to reduce accident-related costs.

### **D. Definition of preventable accident.**

One in which you did something which contributed to the accident

Or

You failed to do something which could have avoided the accident.

Because you are a professional operator, the fact that the other driver may be at fault does not automatically relieve you of responsibility. The garage supervisor will investigate and determine preventability.

Example: Failing to maintain an adequate following distance.

Avoid preventable accidents by using the three defensive driving principles of anticipation, perception and action.

### **E. The six positions of other vehicles around you.**

The other vehicle is:

1. Ahead of you.

7/15/96

## **SUMMARY - DDCT (Cont'd.)**

2. Behind you.
3. Approaching from opposite direction.
4. Approaching from an angle.
5. Passing you.
6. Being passed by you. .

All of these are danger times and you must be ready to react.

### **F. Customer accidents.**

1. Types of customer accidents.
  - a. Trips, slips, and falls boarding and alighting.
  - b. Falls against the farebox.
  - c. Falling against grab rails and stanchions.
  - d. Tripping on obstructions in the aisle.
  - e. Thrown against seats due to panic stops, jerky starts, and quick turns.
  - f. Caught in doors.
2. Preventing customer accidents.
  - a. Check your bus for tripping hazards before leaving the garage.
  - b. Position bus correctly at bus stops - 6" or 6' from curb. Don't make stretch stops. Don't nose dive.
  - c. Don't board and discharge customers at hazards like puddles, ice patches, snow banks, broken pavement, poles, newspaper boxes, etc.
  - d. Don't open doors until you completely stop.
  - e. Don't close doors (especially rear ones) until customers are clear of bus. Use your interior mirrors.

7/15/96

## **SUMMARY - DDCT (Cont'd.)**

- f. Don't pull out until all doors are closed.
  - g. Communicate with customers.
  - h. Be especially watchful of senior citizens and disabled customers. Use kneeling system or lift.
  - i. Have customers keep aisles clear.
  - j. Brake smoothly - maintain an adequate following distance.
  - k. Accelerate gradually - avoid false starts and stops.
  - l. Turn gradually and smoothly.
  - m. You should report hazards at bus stops and along the route.
- G. Rear-end collisions.**
- 1. Techniques to avoid rear-ending another vehicle.
    - a. Adjust your distance for speed and weather conditions.  
**NOTE:** 4-second rule can only be used for ideal conditions.
    - b. Use foresight - be observant and try to predict what will happen. Keep your eyes and mind on the road.
    - d. Keep your bus under control.
    - e. Be alert for unexpected stops by vehicles ahead.
    - f. Be prepared for false starts by vehicles ahead. Move after they move, not with them.
    - g. Be prepared for quick stops caused by pedestrians at intersections.
  - 2. Techniques to avoid being rear-ended.
    - a. Pull bus all the way into bus stop.
    - b. Avoid short stops and quick changes of direction.

7/15/96

## **SUMMARY – DDCT (Cont'd.)**

- c. Use directional signals.
- d. Maintain normal and steady speed.
- e. Keep to the right and allow other vehicles to pass, especially at railroad crossings.
- f. Brake smoothly with pedal and not rear-door interlock.
- g. Be a courteous driver.

### **H. Right hand turns.**

Never leave your right side open for a car to slip in while you are turning.

### **I. Other situations.**

Avoid "nose diving" your bus at stops.

- 1. Difficult for boarding and alighting customers.
- 2. Rear end of bus blocks traffic - discourteous and accident hazard.
- 3. You cannot use the left side mirror when pulling back into traffic.
- 4. Increases chances you will be rear-ended.

### **J. Night driving. (3 Principles)**

- 1. Our eyes function differently at night than during the day, so use the following three (3) principles:

- a. Dark adaptation.

Your eyes must adjust to low light. This normally takes a few minutes. When the transition is done quickly, you may be temporarily blinded unless you are prepared. Your eyes will also strain to adapt when you drive at dusk or dawn.

What can you do to adapt? Slow down when going from high light areas, such as shopping areas, to low light conditions.

## **SUMMARY - DDCT (Cont'd.)**

Adjust your speed and remember that your route will look totally different when driving at night. Put your headlights on one half hour before sunset to one half hour after sunrise.

### **b. Off center vision.**

At night you must look slightly to the left, right, above or below an object. This principle is most useful to you in coping with headlight glare. Do not look directly into the oncoming headlights. It will take a few seconds to recover and in that time you are traveling a great distance blind.

*If* you are blinded by oncoming headlights while traveling 50 miles per hour, you will travel 73 feet totally blind.

You can help yourself and other drivers by making sure your windshield is clean, use low beams, and be alert to glare on icy or wet road.

Also, remember that when driving in a heavy fog, you should use low beams, since high beams will be reflected back into your eyes.

### **c. Scanning.**

Move your eyes in short movements around the object you are watching. Concentrate your attention on the object but don't look directly at it. Pause a few seconds at each point of observation because your eyes cannot see while in motion.

Remember to observe your mirrors while scanning and keep in mind that distances seen in a mirror at night are distorted.

Finally, you must control your speed to ensure that you don't overdrive your headlights. Drive slow enough to stop within the distance illuminated by your headlights.

## **2. Physical condition.**

Your physical condition has a lot to do with your night driving ability. As you get older, your reflexes become slower, and you are more subject to various eye diseases. As you get older, see

## **SUMMARY - DDCT (Cont'd.)**

your eye doctor more frequently. You might find that you need glasses after all, or that your glasses need changing.

### **K. Winter and bad weather driving.**

You must be prepared to cope with winter weather and bad driving. There are six primary hazards during winter operation which you must consider. These are:

1. Your disposition.
2. Reduced visibility.
3. The effects of temperature.
4. Inadequate traction when starting.
5. Unexpected or unusual conditions.
6. Steering or stopping problems.

First, let's talk about your DISPOSITION AND ATTITUDE, because your frame of mind will determine how well the day goes. Remember, bad weather shortens everyone's temper, so anticipate unpleasant reactions from other drivers, your customers, and yourself. When traffic is heavy and the going is tough, stay calm. If you allow yourself to become hasty, impatient, or angry, you'll probably either take it out on your customers or become careless and have an accident. A little smile will ease the tension and help everyone.

Our second hazard is REDUCED VISIBILITY. You must make extra efforts to see and be seen. Remember, safe driving is mostly a matter of anticipation. You must perceive hazards in time to take action to avoid accidents. But winter works against good visibility. Road slush and grime, ice and snow all make it harder to see. Be sure your headlights are clean and defrosters are working before you leave the garage. Wipers must be in good condition.

Your mirrors are just as important, so carry paper towels to clean them periodically. Help others see you and increase your own visibility by turning on your low beam headlights in early darkness, daylight snowstorms and using your turn signals.

All that glare can really cause eye strain. Remember that snow's daylight reflection causes glare as bright as any beach in July. If you forget your sunglasses, the constant effort required to cope with glare will use body energy and make you tired very quickly. Remember that driving your route at night is more difficult because of

### **SUMMARY - DD T (Cont'd.)**

shadows and snow. Other drivers whose cars have burned out headlights will add to the problem.

TEMPERATURE will have an important effect on your driving. Did you ever realize that a melting ice cube is far more slippery than a cube taken directly from the freezer? This pertains to your driving as well. Ice at 32 degrees is twice as slippery as ice at zero. The sun's rays may start to melt the snow and ice, and produce a film of water that will turn a street into a bobsled run.

Now let's discuss moving your vehicle in bad weather. INADEQUATE TRACTION means you will have problems pulling away from stops, getting up hills, or negotiating deep snow. All three can cause short tempers, accidents, and traffic tie-ups. When the rear wheels spin or the bus side slips, release the accelerator and then apply it again gently. It's important to have the bus wheels straight ahead to ease starting. If it is necessary to start in deep snow, push the accelerator gently and swing the steering wheel back and forth about half a turn to smooth out a path for the front wheels. Every time you spin those wheels, the snow gets smoother, and the heat generated by the spinning wheels melts the ice. This drastically reduces traction.

You must be alert to UNUSUAL OR UNEXPECTED CONDITIONS caused by snow. don't get careless when the temperature suddenly goes above 32 degrees. While most of the road may be clear, ice lingers on bridges and overpasses where ground heat is insufficient to speed up melting. Areas shaded by buildings, trees, hills, and underpasses are also danger spots because snow and ice may remain there while the rest of the roadway is clear. Watch out at intersections, on curves, and on hills. The "polishing" action of wheels sliding to a stop, or spinning to get started on ice and snow, greatly increases the slipperiness of already hazardous road surfaces. Polishing lengthens braking distance and slows traffic. Banked snow and ice can reduce passing clearances so be prepared to pull over as far as possible, or stop completely if necessary to let oncoming vehicles pass.

Pedestrians present a serious hazard in bad weather. Be prepared to avoid people walking in the cold with their collar pulled up. Pedestrians in snow don't watch traffic signals and a green light doesn't give you the right of way. Remember that when sidewalks aren't shoveled, the street is a good path, and people will use it. If they slip and fall, they could easily go under the wheels of your vehicle.

Prospective customers have one thing on their minds: getting out of the weather into your relatively warm vehicle. You'll find them anxious to get aboard. They will crowd into the street and never think that your bus may slide and strike them. In their haste to make sure you see them, they may slip and fall into your path. You, the pro, have to think for them.

## **SUMMARY - DDGT (Cont'd.)**

Approach transit stops slowly, cautiously, and with your vehicle under control. If the customer is in a snow bank, stop far enough out to make him step into the street, instead of stretching to reach the first step.

Here are some helpful hints on winter driving:

Reduce speed so that you have better control of the vehicle. Skidding is usually a sign of excessive speed.

Schedules are important, but safety is first. Posted speed limits become meaningless in bad weather.

Further reduce speed before entering curves and downgrades.

Increase clearance between your bus and parked cars or fixed objects to provide a safety factor in case the vehicle side slips. However, do not allow so much clearance that another vehicle could get between you and a fixed object or parked vehicle.

**STEERING** is also extremely delicate on ice and snow. Forces that tend to throw your vehicle into a skid are introduced as you come down a hill or steer into a turn. Steer more slowly and gradually, and avoid quick or abrupt turning movements. Watch for changes in road surface - dry here and icy there. Anticipate stops and slow down gradually, especially approaching intersections. Poor traction makes stopping difficult, and stretches stopping distances to 250 feet or more from just 20 mph. That's almost 10 times the distance you need to stop on dry pavement.

When approaching stops, beware of slush or you may give someone an icy bath. Slow down - be considerate. When applying brakes, begin much sooner than you would on a dry street. Depress the brake pedal slightly. If the wheels begin to lock and slide, release the pedal immediately to allow the wheels to roll. Depress the pedal lightly again, releasing immediately if wheels again slide or side slip. Repeat until the wheels no longer slide or lock. Remember to keep an eye on your air pressure since repeated brake applications will use up air.

Keep your steps clean and don't try to hurry customers. Warn boarding and alighting customers to watch their step. When discharging customers, stop at a cleared spot. If none is available, stay out far enough that the customer doesn't step into a snow bank, but don't stay out so far that you expose them to being hit by a car pulling alongside. Don't pull out until the customer is completely clear of the rear door. On ice or snow it is very easy for him to slip and fall under your wheels.

Many winter accidents have occurred because operators waited too long to adjust their driving. The moment it begins to snow or rain, you must begin to drive as though the street was already treacherous. Accept the first few flakes of snow or drops of rain as your signal to exercise extreme caution. When starting out, get the

7/15/96

## **SUMMARY - DDCT (Cont'd.)**

feel of the road by applying your brakes lightly and at low speed. Then try your brakes occasionally while driving slowly and away from traffic to find out if the road is slippery.

If you're stopped alongside parked vehicles, be extra careful. When starting up, accelerate very slowly to avoid side slip. Wait for the vehicle ahead to move before you start up. Count 1001, 1002. Increase following distance to allow the additional cushion of safety that may be required for braking. The slicker the street, the greater your following distance must be. Begin stopping sooner.

Keep an eye out for kids throwing snowballs and warn your customers. Broken glass could injure you or your customers. Don't look directly into the lights of oncoming vehicles. At night, be alert to abandoned autos.

Be alert to 'cars backing out of parking spots. Avoid excessive spinning of wheels. You may cause a tire fire or transmission damage.

Finally, hills are critical danger areas in winter. Accelerate slowly and maintain your momentum when climbing a hill, and don't start your descent unless you are far enough behind traffic ahead.

Let's now review those items which we discussed.

We talked about how important your disposition is in maintaining safety during bad weather. We discussed the fact that reduced visibility requires you to drive more carefully. We explored the effects of temperature on road conditions when driving. We spoke of the problems of inadequate traction when starting. We outlined unexpected conditions while operating which could result in an accident, and finally, we discussed the reduced ability to steer and stop, which requires you to maintain an adequate following distance.

If you use these techniques, you'll be a Pro in Snow.

**PRACTICE DEFENSIVE DRIVING CONCEPTS AND TECHNIQUES!**

# **Federal Motor Carrier Safety Regulations**

**PART 383 Section 383.110  
General Requirements**

**PART 383 Section 383.111  
Required Knowledge**

**PART 383 Section 383.113  
Required Skills**

**PART 392 Section 392.22  
Emergency Signals; Stopped  
Commercial Motor Vehicles**

**PART 392 Section 392.62  
Safe Operation, Buses**

[Code of Federal Regulations]  
[Title 49, Volume 4]  
[Revised as of October 1, 2004]  
From the U.S. Government Printing Office via GPO Access  
[CITE: **49CFR383.110**]

[Page 981]

TITLE 49--TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

PART 383 COMMERCIAL DRIVER'S LICENSE STANDARDS; REQUIREMENTS AND PENALTIES  
--Table of Contents

Subpart G Required Knowledge and Skills

Sec. 383.110 General requirement.

Source: 53 FR 27654, July 21, 1988, unless otherwise noted.

All drivers of commercial motor vehicles shall have knowledge and skills necessary to operate a commercial motor vehicle safely as contained in this subpart. A sample of the specific types of items which a State may wish to include in the knowledge and skills tests that it administers to CDL applicants is included in the appendix to this subpart G.

[Code of Federal Regulations]  
[Title 49, Volume 4]  
[Revised as of October 1, 2004]  
From the U.S. Government Printing Office via GPO Access  
[CITE: **49CFR383.111**]

[Page 981-982]

TITLE 49--TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

PART 383 COMMERCIAL DRIVER'S LICENSE STANDARDS; REQUIREMENTS AND PENALTIES  
--Table of Contents

Subpart G Required Knowledge and Skills

Sec. 383.111 Required knowledge.

All commercial motor vehicle operators must have knowledge of the following general areas:

(a) Safe operations regulations. Driver-related elements of the regulations contained in 49 CFR parts 382, 391, 392, 393, 395, 396, and 397, such as: Motor vehicle inspection, repair, and maintenance requirements; procedures for safe vehicle operations; the effects of fatigue, poor vision, hearing, and general health upon safe commercial motor vehicle operation; the types of motor vehicles and cargoes subject to the requirements; and the effects of alcohol and drug use upon safe commercial motor vehicle operations.

(b) Commercial motor vehicle safety control systems. Proper use of the motor vehicle's safety system, including lights, horns, side and rear-view mirrors, proper mirror adjustments, fire extinguishers, symptoms of improper operation revealed through instruments, motor vehicle operation characteristics, and diagnosing malfunctions. Commercial motor vehicle drivers shall have knowledge on the correct procedures needed to use these safety systems in an emergency situation, e.g., skids and loss of brakes.

(c) Safe vehicle control--(1) Control systems The purpose and function of the controls and instruments commonly found on commercial motor vehicles.

(2) Basic control. The proper procedures for performing various basic maneuvers.

[[Page 982]]

(3) Shifting. The basic shifting rules and terms, as well as shift patterns and procedures for common transmissions.

(4) Backing. The procedures and rules for various backing maneuvers.

(5) Visual search. The importance of proper visual search, and proper visual search methods.

(6) Communication. The principles and procedures for proper

communications and the hazards of failure to signal properly.

(7) Speed management. The importance of understanding the effects of speed.

(8) Space management. The procedures and techniques for controlling the space around the vehicle.

(9) Night operation. Preparations and procedures for night driving.

(10) Extreme driving conditions. The basic information on operating in extreme driving conditions and the hazards that are encountered in extreme conditions.

(11) Hazard perceptions. The basic information on hazard perception and clues for recognition of hazards.

(12) Emergency maneuvers. The basic information concerning when and how to make emergency maneuvers.

(13) Skid control and recovery. The information on the causes and major types of skids, as well as the procedures for recovering from skids.

(d) Relationship of cargo to vehicle control. The principles and procedures for the proper handling of cargo.

(e) Vehicle inspections: The objectives and proper procedures for performing vehicle safety inspections, as follows:

(1) The importance of periodic inspection and repair to vehicle safety.

(2) The effect of undiscovered malfunctions upon safety.

(3) What safety-related parts to look for when inspecting vehicles.

(4) Pre-trip/enroute/post-trip inspection procedures.

(5) Reporting findings.

(f) Hazardous materials knowledge, such as: What constitutes hazardous material requiring an endorsement to transport; classes of hazardous materials; labeling/placarding requirements; and the need for specialized training as a prerequisite to receiving the endorsement and transporting hazardous cargoes.

(g) Air brake knowledge as follows:

(1) Air brake system nomenclature;

(2) The dangers of contaminated air supply;

(3) Implications of severed or disconnected air lines between the power unit and the trailer(s);

(4) Implications of low air pressure readings;

(5) Procedures to conduct safe and accurate pre-trip inspections.

(6) Procedures for conducting enroute and post-trip inspections of air actuated brake systems, including ability to detect defects which may cause the system to fail.

(h) Operators for the combination vehicle group shall also have knowledge of:

(1) Coupling and uncoupling--The procedures for proper coupling and uncoupling a tractor to semi-trailer.

(2) Vehicle inspection--The objectives and proper procedures that are unique for performing vehicle safety inspections on combination vehicles.

[53 FR 27654, July 21, 1988, as amended at 62 FR 37151, July 11, 1997]

[Code of Federal Regulations]  
[Title 49, Volume 4]  
[Revised as of October 1, 2004]  
From the U.S. Government Printing Office via GPO Access  
[CITE: 49CFR383.113]

[Page 982-983]

TITLE 49--TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

PART 383 COMMERCIAL DRIVER'S LICENSE STANDARDS; REQUIREMENTS AND PENALTIES  
--Table of Contents

Subpart G Required Knowledge and Skills

Sec. 383.113 Required skills.

(a) Basic vehicle control skills. All applicants for a CDL must possess and demonstrate basic motor vehicle control skills for each vehicle group which the driver operates or expects to operate. These skills should include the ability to start, to stop, and to move the vehicle forward and backward in a safe manner.

(b) Safe driving skills. All applicants for a CDL must possess and demonstrate the safe driving skills for their vehicle group. These skills should include proper visual search methods, appropriate use of signals, speed control for weather and traffic conditions, and ability to position the motor vehicle correctly when changing lanes or turning.

(c) Air brake skills. Except as provided in Sec. 393.95, all applicants shall demonstrate the following skills with respect to inspection and operation of air brakes:

(1) Pre-trip inspection skills. Applicants shall demonstrate the skills necessary to conduct a pre-trip inspection which includes the ability to:

[[Page 983]]

(i) Locate and verbally identify air brake operating controls and monitoring devices;

(ii) Determine the motor vehicle's brake system condition for proper adjustments and that air system connections between motor vehicles have been properly made and secured;

(iii) Inspect the low pressure warning device(s) to ensure that they will activate in emergency situations;

(iv) Ascertain, with the engine running, that the system maintains an adequate supply of compressed air;

(v) Determine that required minimum air pressure build up time is within acceptable limits and that required alarms and emergency devices automatically deactivate at the proper pressure level; and

(vi) Operationally check the brake system for proper performance.

(2) Driving skills. Applicants shall successfully complete the skills tests contained in Sec. 383.113 in a representative vehicle equipped with air brakes.

(d) Test area. Skills tests shall be conducted in on-street conditions or under a combination of on-street and off-street conditions.

(e) Simulation technology. A State may utilize simulators to perform skills testing, but under no circumstances as a substitute for the required testing in on-street conditions.

[Code of Federal Regulations]  
[Title 49, Volume 4]  
[Revised as of October 1, 2004]  
From the U.S. Government Printing Office via GPO Access  
[CITE: **49CFR392.22**]

[Page 1129-1130]

## TITLE 49--TRANSPORTATION

### DEPARTMENT OF TRANSPORTATION

#### PART 392\_DRIVING OF COMMERCIAL MOTOR VEHICLES--Table of Contents

##### Subpart C\_Stopped Commercial Motor Vehicles

#### Sec. 392.22 Emergency signals; stopped commercial motor vehicles.

(a) Hazard warning signal flashers. Whenever a commercial motor vehicle is stopped upon the traveled portion of a highway or the shoulder of a highway for any cause other than necessary traffic stops, the driver of the stopped commercial motor vehicle shall immediately activate the vehicular hazard warning signal flashers and continue the flashing until the driver places the warning devices required by paragraph (b) of this section. The flashing signals shall be used during the time the warning devices are picked up for storage before movement of the commercial motor vehicle. The flashing lights may be used at other times while a commercial motor vehicle is stopped in addition to, but not in lieu of, the warning devices required by paragraph (b) of this section.

(b) Placement of warning devices--(1) General rule. Except as provided in paragraph (b)(2) of this section, whenever a commercial motor vehicle is stopped upon the traveled portion or the shoulder of a highway for any cause other than necessary traffic stops, the driver shall, as soon as possible, but in any event within 10 minutes, place the warning devices required by Sec. 393.95 of this subchapter, in the following manner:

(i) One on the traffic side of and 4 paces (approximately 3 meters or 10 feet) from the stopped commercial motor vehicle in the direction of approaching traffic;

(ii) One at 40 paces (approximately 30 meters or 100 feet) from the stopped commercial motor vehicle in the center of the traffic lane or shoulder occupied by the commercial motor vehicle and in the direction of approaching traffic; and

(iii) One at 40 paces (approximately 30 meters or 100 feet) from the stopped commercial motor vehicle in the center of the traffic lane or shoulder occupied by the commercial motor vehicle

[[Page 1130]]

and in the direction away from approaching traffic.

(2) Special rules--(i) Fusees and liquid-burning flares. The driver of a commercial motor vehicle equipped with only fusees or liquid-burning flares shall place a lighted fusee or liquid-burning flare at each of the locations specified in paragraph (b)(1) of this section. There shall be at least one lighted fusee or liquid-burning flare at each of the prescribed locations, as long as the commercial motor vehicle is stopped. Before the stopped commercial motor vehicle is moved, the driver shall extinguish and remove each fusee or liquid-burning flare.

(ii) Daylight hours. Except as provided in paragraph (b)(2)(iii) of this section, during the period lighted lamps are not required, three bidirectional reflective triangles, or three lighted fusees or liquid-burning flares shall be placed as specified in paragraph (b)(1) of this section within a time of 10 minutes. In the event the driver elects to use only fusees or liquid-burning flares in lieu of bidirectional reflective triangles or red flags, the driver must ensure that at least one fusee or liquid-burning flare remains lighted at each of the prescribed locations as long as the commercial motor vehicle is stopped or parked.

(iii) Business or residential districts. The placement of warning devices is not required within the business or residential district of a municipality, except during the time lighted lamps are required and when street or highway lighting is insufficient to make a commercial motor vehicle clearly discernable at a distance of 500 feet to persons on the highway.

(iv) Hills, curves, and obstructions. If a commercial motor vehicle is stopped within 500 feet of a curve, crest of a hill, or other obstruction to view, the driver shall place the warning signal required by paragraph (b)(1) of this section in the direction of the obstruction to view a distance of 100 feet to 500 feet from the stopped commercial motor vehicle so as to afford ample warning to other users of the highway.

(v) Divided or one-way roads. If a commercial motor vehicle is stopped upon the traveled portion or the shoulder of a divided or one-way highway, the driver shall place the warning devices required by paragraph (b)(1) of this section, one warning device at a distance of 200 feet and one warning device at a distance of 100 feet in a direction toward approaching traffic in the center of the lane or shoulder occupied by the commercial motor vehicle. He/she shall place one warning device at the traffic side of the commercial motor vehicle within 10 feet of the rear of the commercial motor vehicle.

(vi) Leaking, flammable material. If gasoline or any other flammable liquid, or combustible liquid or gas seeps or leaks from a fuel container or a commercial motor vehicle stopped upon a highway, no emergency warning signal producing a flame shall be lighted or placed except at such a distance from any such liquid or gas as will assure the prevention of a fire or explosion.

[37 FR 17175, Aug. 25, 1972, as amended at 40 FR 10685, Mar. 7, 1975; 47 FR 47837, Oct. 28, 1982; 48 FR 57139, Dec. 23, 1983; 59 FR 34711, July 6, 1994; 60 FR 38747, July 28, 1995; 63 FR 33279, June 18, 1998]

[Code of Federal Regulations]  
[Title 49, Volume 4]  
[Revised as of October 1, 2004]  
From the U.S. Government Printing Office via GPO Access  
[CITE: **49CFR392.62**]

[Page 1132]

TITLE 49--TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

PART 392\_DRIVING OF COMMERCIAL MOTOR VEHICLES--Table of Contents

Subpart G\_Prohibited Practices

Sec. 392.62 Safe operation, buses.

No person shall drive a bus and a motor carrier shall not require or permit a person to drive a bus unless--

(a) All standees on the bus are rearward of the standee line or other means prescribed in Sec. 393.90 of this subchapter;

(b) All aisle seats in the bus conform to the requirements of Sec. 393.91 of this subchapter; and

(c) Baggage or freight on the bus is stowed and secured in a manner which assures--

(1) Unrestricted freedom of movement to the driver and his proper operation of the bus;

(2) Unobstructed access to all exits by any occupant of the bus; and

(3) Protection of occupants of the bus against injury resulting from the falling or displacement of articles transported in the bus.

[63 FR 33278, June 18, 1998]