

Class 9

Adverse Driving Conditions and Emergencies

Fact Sheet 10.1 **Content Information**

Driving at Night

Driving at night:

Reduced lighting results in reduced visibility at night. Not only can a driver not see ahead as clearly, he/she cannot see to the sides as well. Drivers have difficulty seeing objects approaching from their left or right into their path of travel.

Visibility deals with limitations placed on gathering and processing information when driving at night due to factors of reduced illumination and ability of the eyes to adjust to glare.

- Distance a driver can see ahead is limited •
- Headlights provide limited illumination of off-road areas
- Glare from lights of oncoming and following vehicles and glare recovery time •

Strategies for night driving include:

- Use high-beam headlights when safe and legal to do so, properly aligned high beams:
 - Illuminate roadway 300 to 350 feet ahead
 - Light area above road 500 to 1800 feet
 - Load, load distribution and vehicle height affect light beam distance
 - Allow for a maximum safe speed of 55 60 mph
- Use low-beam headlights in bad weather or when following or meeting another car at night, properly aligned low beams:
 - Illuminate roadway 100 to 150 feet ahead
 - Light area above road 300 to 500 feet
 - Load, load distribution and vehicle height affect light beam distance
 - Allow for a maximum safe speed of 40 45 mph
- Adjust your speed to the reach of the headlights do not overdrive the headlights, compensate for reduced visibility by increasing following distance to four or more seconds and decreasing speed
- Keep vour eyes moving search the darkened roadway ahead and the edges of the lighted area, as well as the middle
- Flash headlights once quickly if an oncoming vehicle is using high beams at night
- **Protect your eyes from glare** headlights at night can temporarily affect your vision





Fact Sheet 10.1 continued Content Information

Visibility Limited by Rain and Snow

These conditions deal with atmospheric conditions beyond control of the vehicle operator. Drivers should not drive knowingly in the conditions listed below.

Minimizing the effects of reduced visibility

- Keep headlights clean mud and dirt splashed by other cars can cover the driver's headlights, which can reduce headlight effectiveness. Clean them periodically to restore their effectiveness.
- Clear the windshield and rear windows snow and sleet can collect and freeze on the windshield, which can restrict vision. Be sure to remove excess snow and sleet from the windows. Clean the outside and inside of the windshield at least once a week.
- **Turn on the defroster** to help remove ice and condensation from the windshield and windows turn on the defroster and blowers, move the heat control to hot and allow the engine to warm up. Use the air conditioner to reduce the humidity level.

Driving in rain or snow

- Drizzle can turn into a downpour and obscure vision.
- Light snow can turn into a whiteout causing very limited vision.

Sight distance rule – the driver has to be able to stop in the distance s/he can see.

Precautionary measures should be taken as soon as any of the initial conditions become evident. In most instances torrential rains are of short duration. The snow storm-induced whiteout could cover a much greater area. In both situations:

- Continue to reduce speed to limits imposed by visibility, but do not stop in travel lane or on shoulder near road*
- Turn headlights to low beam
- Turn on emergency flashers
- Maintain center lane position
- Turn on windshield wipers**
- Be alert for vehicles stopped in roadway
- Be prepared for effects of gusting or strong steady crosswinds
- Make steering, acceleration and braking actions gently and smoothly

* For snow condition, look for exit from highway and turn on radio for weather report. If impossible to leave highway, stop beyond end outside of guardrail. If available, use cell phone to check road conditions once pulled over.

** Snow may require use of windshield washer.

Fact Sheet 10.1 Content Information

Visibility Limited by Glare

Glare is difficulty seeing in the presence of bright light such as direct or reflected sunlight or artificial light such as car headlights at night.

Sources of glare:

- Oncoming and following vehicle headlights
- Dirty windshield
- Paper on dashboard
- Snow-covered landscape
- The sun at dawn or dusk (ahead or behind)
- Flashing advertisement signs
- Rain amplifying glare
- Flood lights on businesses next to roadway
- Failure to dim own headlights in fog

Glare recovery – most people's eyes recover from glare within 3 to 5 seconds; however, recovery times of 7 seconds or longer is not uncommon. Typically the time to recover from glare increases with age.

Countermeasures:

- Keep all glass, lights and windows clean
- Do not place paper or other objects on dashboard
- Adjust sun visors and mirrors
- Sit as high in the seat as possible
- Wear sunglasses during the day
- Adjust speed to visibility conditions
- Look to the right edge of the roadway, away from headlights

Fact Sheet 10.1 continued Content Information

Visibility Limited by Fog

Fog:

People involved in multi-vehicle crashes in fog often state that they had driven through patches of light, drifting fog in the area, but nothing serious and had continued to travel at the prevailing speed. Suddenly it was impossible to see, they had braked hard, only to run into a vehicle stopped in the road ahead or to be rear-ended. The correct response would have been to reduce speed as soon as they were aware of drifting fog.

If driving in drifting fog:

- Reduce speed
- Make sure headlights are on low beam to reduce reflected glare
- Turn on windshield wipers
- Turn on defroster or air conditioner

If fog is heavy:

- Further reduce speed but do not stop in a travel lane
- Turn on emergency flashers
- Look for an exit from the highway
- If impossible to leave highway, stop beyond end of guardrail, check outside the guardrail, then back up outside of the guardrail, turn off all lights and wait for fog to lift

Fact Sheet 10.1 continued Content Information

Strong Winds

Strong winds can reduce your vehicle control and push lightweight vehicles out of the lane or even off the road. These conditions occur on bridges, through mountain passes and ravines, and when being passed by large trucks. These wind gusts and blasts can cause total loss of vehicle control. If your vehicle encounters strong gusts of wind, do the following:

- Keep a firm grip on the steering wheel
- Reduce speed
- Check for oncoming traffic
- Adjust lane position
- Do not oversteer when responding to the gust
- Prepare to countersteer
- Stay off the brake

When driving on a highway with steady, strong crosswinds a driver should be alert to prevailing wind direction and velocity, the terrain through which he/she is passing and the condition of the road surface. Driving out of a wooded area, from behind a long ridge or from under an overpass on an ice packed road and being struck by a strong wind gust can easily cause a vehicle to move one lane to the left or right or spin completely out of control.

Advanced Automotive Technology

Automotive Technology

New vehicle technology aids the driver in maintaining vehicle control when performing avoidance maneuvers and increased protection should a crash occur. Enhanced control is provided through technologies such as the following:

- Anti-lock brakes which are designed to allow steering and simultaneous braking without losing vehicle balance. Anti-lock brakes do not necessarily shorten stopping distance on dry pavement, but generally shorten stopping distances on wet surfaces where traction loss can be a serious problem.
- **Traction control** is designed to activate brake sensors which do not allow the wheels to spin. The process is basically the reverse of anti-lock brakes. The device allows acceleration input without loss of vehicle balance.
- **Suspension control** adjusts vehicle balance at struts or shock absorbers through adjustment of fluid or air pressure when too much weight is suddenly transferred to a given shock or strut.
- Electronic Stability Program (ESP) compares where a driver is steering the vehicle with where the vehicle is actually going. When ESP senses a disparity between the two, it selectively applies any one of the vehicle's brakes to reduce the discrepancy and help the driver retain control and stability. This program can help prevent conditions that lead to a rollover.





Advanced Automotive Technology

Fact Sheet 10.2 continued Content Information

Automotive Technology

Other enhanced automotive technology includes:

- Active passive integrated approach system (APIA) combines both active and passive safety equipment to help drivers maintain control and avoid crashes. This system relies on data interchange between active and passive safety systems that collect information on the activities and inputs of the driver, the behavior of the vehicle, and the status of the driving environment.
 - For example, when a vehicle with APIA is not a safe distance away from a vehicle ahead, the system warns the driver with a visual message displayed on the instrument panel or a vibrating pedal. If the vehicles approach closer, seat belts are tightened and side windows are closed and the system actively applies light pressure on the brakes.
- **Crumple zones and side impact panels** protect occupants by allowing structures to collapse at different rates, reducing the risk of penetration into the passenger compartment or spreading forces over a wider area.
- **Improved door latches and locks** are designed to stay closed under the most severe conditions, unlike door fasteners of the early 1960s that resembled the fasteners found in the interior of the typical home, and generally flew open in a crash.
- **Tempered glass** in motor vehicles has literally eliminated the facial disfigurement associated with partial ejection through laminated plate glass formerly used in windshields.
- **Headlights** have undergone dramatic improvement in terms of level of illumination, focus and reliability over the past 15 years.

Changing Traction Conditions

Traction and Preventing Loss of Traction

Traction

Traction or adhesion is the grip between the tires and the road surface that allows a vehicle to start, stop and/or change direction. Reduced traction increases the risk of skidding, loss of control and a collision.

Slippery conditions

- Traction is reduced when there are any foreign substances on the road surface, such as water, snow, ice, gravel, sand, wet leaves, or loose dirt.
- The effects of limited traction are particularly dangerous in curves and turns.
- Some road surfaces lose some of their surface friction with wear, aggravating the loss of traction with slippery conditions. These roads often have a "slippery when wet" sign posted.
- Wet roads are most dangerous when the temperature is near freezing (30 34 degrees).
- On hot days, wet surfaces are most slippery just after a rain has begun to fall, especially if it hasn't rained recently.
- During the first 10 15 minutes of rain, water combines with oil and dirt to form a very slick mixture.
- Heavily traveled intersections are especially dangerous because some vehicles stopped for traffic signals leave oil drippings on roads.

Preventing loss of traction

To prevent loss of traction on wet roads a driver can:

- **Reduce speed** compensates for limited surface friction to reduce stopping distance and reduce the chance of losing control when changing direction
- **Increase space** increase following distance on slippery surfaces, stop well behind the vehicle ahead to prevent being pushed into it if struck from behind
- **Minimize changes in speed** when a driver turns, accelerates, or brakes, the chance of losing traction increases, make changes gently and gradually
- Minimize change in direction avoid abrupt changes in direction because this may cause the front tires to slide and result in loss of control
- Find the best path avoid areas of limited traction or place tires in the tracks left by the tires of vehicles ahead, which have channeled some of the water away

Changing Traction Conditions

Fact Sheet 10.3 continued Content Information

Traction Loss

Traction loss

The causes of traction loss (skidding) can be divided into three categories:

1. Generated by road surface conditions:

- Ice, snow or frost
- Wet surface; particularly first 15 minutes of rain after a long dry period when drops of oil and rubber particles have collected on the surface
- Standing water
- Mud near farm entrances, construction sites and truck crossings
- Wet leaves
- Broken or uneven road surface
- Sand or gravel frequently found on curves in rural areas

2. Generated by the condition of the vehicle:

- Brakes unevenly adjusted. Brakes pulling in one direction or the other can cause a skid, as can wheels out of alignment when brakes are applied
- Tires with worn tread, front and rear pairs not matched to size, tread depth or type
- Different pressure on opposite sides have effects similar to uneven brake adjustment since one tire will drag more than others

3. Actions of the driver:

- Sudden steering action on a slippery surface
- Abrupt or sudden changes in vehicle speed
- Panic stop or applying brakes too hard on hill, curves or slippery surfaces
- Most skids are caused by excessive speed, coupled with excessive steering input and/or improper braking when turning, or the same actions at normal speed on ice/ snow or on roadways covered by sand, gravel or water

Changing Traction Conditions

Fact Sheet 10.3 continued Content Information

Hydroplaning

Hydroplaning is when a vehicle's tires lose contact with the road and ride on top of a film of water.

Causes of hydroplaning

- Water on the road heavy rain causes water to gather on the roadway.
- **Excess speed** at speeds faster than 35 mph, tires are less effect at channeling water from the road, tires can become overwhelmed by water and lose contact with the road at about 50 mph.
- Under-inflated tires if tires are improperly inflated or worn, hydroplaning can occur well below 50 mph.

Signs of hydroplaning – this is the most difficult loss of traction for a driver to recognize

- Water standing on the roadway.
- Raindrops that bubble as they hit the surface of the road.
- A slushing sound made by tires on the pavement.
- A sensation that the steering wheel is loose, or has become disconnected from the front wheels of the vehicle. Drivers may not realize their car is hydroplaning until they try to turn or stop, and they find the car will not respond.
- A vehicle ahead that is not leaving a track is hydroplaning.

Preventing hydroplaning

- Slow down when there is water standing on the surface of the pavement.
- Tires should be properly inflated and have adequate tread.
- Increase following distance, particularly when behind a large truck.
- Drive in the tracks left by any vehicle ahead.

If hydroplaning occurs

- Ease off the accelerator gradually, decrease speed until your tires regain traction.
- Do not brake until traction has been restored.
- Steer no more than necessary, continue to look and steer where you want to go.

Emergency Recovery

Fact Sheet 10.4 Content Information

Detecting Traction Loss

Traction loss identified through feel of the vehicle

The first indication of traction loss should be sensory stimulus generated by bodily movements and tensions, rather than sight. By the time a driver is visually aware that the vehicle is not headed in the desired direction or sliding rather than stopping, the situation is typically more difficult to correct.

Early detection begins with proper seating, safety belt snapped tightly and grasping the steering wheel firmly with fingers rather than the palms of the hands. This position allows the vehicle to more readily communicate changes in motion to the driver. When seated in this manner, employing an aggressive visual search to detect conditions that could reduce available traction should require minor corrections of accelerator, brake or steering wheel to bring the vehicle back to the intended path of travel.

What should drivers do when they realize they are skidding?

Look for an open path of travel and release the accelerator or brake pedal to regain vehicle balance.

Having failed to detect early warning signals, how should the driver respond?

While there is no one way to handle a particular skid, there are guidelines that can be applied to help control skidding. Basic rules include:

- Determine which wheels, front or rear, have lost traction.
- Visually target an open path of travel, do not look at object toward which the vehicle is sliding.
- Release accelerator or brake pedal, whichever the driver is applying, to regain vehicle balance.
- Steer toward open path of travel as long as vehicle is in motion.
- Jabbing brake may be necessary to aid in case of front wheel loss of traction, but only after rolling traction has been reestablished.
- Progressive acceleration may aid a rear wheel loss of traction to allow rolling traction to regain control.

Unit 10 Adverse Driving Conditions and Emergencies

Emergency Recovery

Fact Sheet 10.4 continued Content Information

Skidding

Skidding is a situation in which the driver's tires lose all or part of their grip on the road. As the tires lose traction, they will begin to slide, and can cause the vehicle to deviate from its intended path of travel.

Causes of skids

- Slippery surfaces
- Accelerating too hard
- Braking too hard
- Steering too much or too quickly
- Entering a curve with too much speed

Preventing skids

- Apply the brakes in a smooth and progressive manner
- Make smooth, precise steering wheel movements
- Slowing down well in advance of curves
- Maintaining speeds appropriate for conditions

Responding to skids

- Driver needs to recognize s/he is experiencing a skid
- As soon as a skid is detected, s/he needs to take corrective action
- Once the driver responds to a skid s/he should not stop trying to regain traction

Emergency Recovery

Fact Sheet 10.4 continued Content Information

Types of Skids and Recovery Techniques

Front-wheel skid

- Termed "understeer"
- Vehicle moves straight ahead in spite of steering input

To regain traction:

- Continue to look and steer toward the intended path of travel.
- Smoothly ease up on the accelerator to regain traction.
- Smoothly apply brakes to regain enough traction to turn the vehicle toward the intended path of travel, which may take some rapid readjustments as the vehicle responds to the driver's initial steering input.
- Do not steer more than necessary to keep the vehicle directed toward the path of travel. Being able to respond with the steering wheel demands constant attention until the vehicle is safely back on the desired path of travel.

Rear-wheel skid

- Termed "oversteer"
- Vehicle moves sideways without any additional steering input

To regain traction:

- Continue to look and steer toward the intended path of travel
- Ease off the accelerator, avoid using the brakes
- As the rear tire regains traction, continue steering toward the intended path of travel and continue to steer and counter-steer until the vehicle is traveling straight
- Use a light and progressive acceleration if the vehicle does not recover

Counter-steer – once the car starts turning, it will continue past the intended direction. Turn the steering wheel back in the opposite direction just before the vehicle lines up with the intended path.

Emergency Recovery

Fact Sheet 10.4 continued Content Information

Run-Off the Road Crashes

Many run-off the road crashes occur when a driver drifts off the roadway onto the shoulder due to inattention, nodding or falling asleep or steers onto the shoulder to avoid a collision and tries to return to the roadway.

Crashes may occur because:

- As the driver steers back toward the road, the left-side "climbs" onto the pavement"
- As the driver continues turning the wheel, the right-side tires suddenly "climbs" the pavement
- Before the driver can respond, the vehicle has already crossed into the next lane
- The vehicle may collide with a vehicle in the next lane, or drive off the far side of the road

To return to the pavement safely:

- Keep a firm grip on the steering wheel
- Slow down, ease off the accelerator and allow the vehicle to slow gradually, avoid braking
- Straddle the edge of the pavement, after speed is reduced and there is a gap in traffic steer back to the road with small inputs, do not oversteer
- Return to the pavement two wheels at a time, as soon as the front tire is back on the roadway, counter-steer quickly left or right as necessary to stay in the correct lane

Blocked roadside – if an object beside the road such as a tree, bridge abutment or pedestrian forces the driver to return to the road quickly, s/he has little time to slow down, to do this the driver should:

- Steer left or right so the off-road wheels are about 12 inches away from the edge of the pavement
- Remove his/her foot from the accelerator and stay off the brakes. Turn the steering wheel quickly about one-eighth turn toward the roadway
- Immediately, as the outer wheel makes contact with the edge of the pavement, countersteer about a quarter turn and make steering corrections to straighten vehicle

Controlling the Consequences of a Crash

Evasive Maneuvers

Avoiding a collision

To avoid a collision, you may have to make a sudden change in the vehicle's speed and direction.

Deciding which maneuver to use

It is usually better to use evasive steering than braking because a driver can steer the vehicle quicker than s/he can stop it. Although to use evasive steering, the driver must have identified an alternate path of travel.

Evasive steering

Quick steering is often preferable to a stop when:

- There is space to the side a paved shoulder is safest
- Stopping distance is questionable
- There are cars close behind

The driver should have a good grip with both hands on the steering wheel at the 9 and 3 o'clock or 8 and 4 o'clock hand position. Drivers need to:

- 1. Turn the wheel 180 degrees (a half circle) in the direction of the turn.
- 2. Counter-steer immediately by turning the wheel as much as possible in the opposite direction to turn the vehicle back toward the original lane.
- 3. Turn the wheel back to the original straight-ahead position as the vehicle begins to return to the intended lane. These three movements must be made as one continuous, smooth steering response.

Controlling the Consequences of a Crash

Evasive Maneuvers

Evasive braking

If there is no space to the side or the driver has not identified a space, a driver must brake to avoid a collision. In many cases, the best action is a combination of braking and evasive steering.

If the vehicle has ABS:

- Firmly press the brake pedal until the vehicle stops or the proper speed is reached.
- If a driver puts on the brakes hard enough to engage the ABS, he/she will feel the brake pedal pulse back against his/her foot. This sensation is normal and indicates the system is working properly.
- The driver should not pump the pedal or remove their foot from the brake.

If the vehicle does not have ABS:

- The driver can cause the vehicle to skid if s/he brakes too hard.
- Apply firm, steady pressure on the brake pedal just short of lockup the point at which the wheels stop turning.
- If the wheels do lock, the driver must ease up on the brake pedal slightly and quickly to get the wheels to begin rolling again, then apply the brakes again, just short of lockup.
- As soon as the vehicle stops skidding, push down on the brake pedal again. Keep doing this until the vehicle has stopped.

Evasive acceleration

This emergency technique is used less frequently mainly because the dangerous event that drivers have to respond to is in front of them. However, the accelerator can be used to avoid crashes at intersections and in merging situations.

The driver may not be able to get completely out of the way, but acceleration may move the point of impact to the rear of the vehicle, away from the passenger compartment. Be sure to slow down once the danger has passed.

Controlling the Consequences of a Crash

Fact Sheet 10.5 continued Content Information

How to Minimize the Consequences of a Collision

Controlling consequences

- Avoid head-on collisions
- Drive off road rather than skid off road
- Hit something soft rather than something hard
- Hit something going your way rather than something stationary
- Hit stationary object with glancing blow or at an angle
- Hit stationary object rather than an approaching object
- Steer to avoid oncoming traffic
- Avoid direct impact

Hit from the rear

If a driver is about to be hit from the rear, the driver should press him-her-self against the back of the seat and put his/herhead against the head restraint to avoid being thrown forwards. The driver should be ready to apply his/her brakes so s/he will not be pushed into another vehicle.

Hit from the side

If a driver is about to be hit from the side, the driver should get ready to steer or brake to prevent the vehicle from hitting something else.

Hit from the front

If a driver is about to be hit from the front it is important to try to have a "glancing blow" rather than being struck head on. If a collision is about to happen the driver should try to turn the vehicle. At worse, the vehicle will be hit with a glancing blow or might miss it.

Vehicle Malfunctions

Fact Sheet 10.6 Content Information

Dashboard Warning Symbols

It is essential to know what the warning lights and gauges on the instrument panel mean and where they are located. Become familiar with a vehicle by reading the owner's manual. This will help prevent the driver from being caught "off-guard" should a problem arise

Warning symbols – Red color means stop as soon as possible and have the problem repaired. Yellow color means have the problem repaired within a reasonable time

- **Temperature light or gauge** warns when the coolant in the engine is too hot or too low. Stop as soon as possible and repair. Caution: never attempt to remove the radiator cap when the engine is hot as there is the risk of severe burns.
- Oil pressure warning light or gauge warns when the oil is not circulating at the proper pressure or there is not enough oil. Repair in a reasonable time.
- **Brake system warning light** shows the parking brake is set before moving the vehicle and alerts that part or all of the braking system is not working properly or the brake fluid is too low. Stop as soon as possible. Have the vehicle towed and the vehicle repaired.
- Anti-lock braking system (ABS) light indicates whether the ABS is functioning properly. If it comes on while driving there is a problem with the system. Repair in a reasonable time.
- Air bag warning light indicates the air bags are not in proper working condition. Repair in a reasonable time
- Check engine light monitors operation of fuel, ignition, and emission control systems. This light should come on when the ignition is on, but the engine is not running. If the light does not come on, have the system fixed right away. If the light stays on or it comes on while driving, the computer is indicating there is a problem. Repair in a reasonable time.
- **Door ajar light** comes on if a door(s) is not closed properly. Check all doors immediately, but do not check while driving.
- Low fuel warning light tells how much fuel remains when the ignition is on. When the low fuel light activates, it means approximately two galloons remain. Get fuel as soon as possible.
- Alternator/Generator warning light or gauge the vehicle's electrical system is in trouble if this light comes on or the gauge shows "discharge" while the engine is running. Discharge occurs when the alternator is not generating enough electricity to charge the battery. Be aware that if this happens, the engine must use electricity stored in the battery. Turn off as many electrical devices as possible (i.e., the radio, heater/AC, etc.). Caution: Have this checked without delay. If the battery is drained, the car can shut off.

Vehicle Malfunctions

Fact Sheet 10.6 continued Content Information

Vehicle Failures

Tire failure can be caused by the gradual wear on the tires through hard braking and/or acceleration. They also need periodic balancing and alignment. Look for wear bars appearing across the tire as a sign that tires need to be replaced.

A tire blowout is a rapid deflation of air from the tire. If a front tire blows out, the vehicle will pull sharply in the direction of the blowout. If a rear tire blows out, the vehicle will wobble and shake and pull some in the direction of the blowout. In either case:

- 1. Grip the steering wheel firmly
- 2. Remove foot from accelerator
- 3. DO NOT BRAKE
- 4. Allow the vehicle to slow on its own or brake gently if necessary
- 5. Check traffic around you
- 6. Turn on emergency flashers
- 7. Drive to a protected location and pull off the roadway
- 8. Have the tire changed and replaced

Accelerator failure could be caused either by a broken spring or the pedal getting stuck in the down position. In either case:

- 1. Shift to "neutral" (the engine may race but no harm will be done)
- 2. Search for an escape path
- 3. Steer smoothly and brake gently
- 4. Pull off the roadway
- 5. Turn off the vehicle
- 6. Have the pedal repaired at a service center before driving again

Brake failure could be complete loss of brakes or only failure of the power brakes. If the brakes quit working:

- 1. Rapidly pump the brakes (may regain brakes)
- 2. Shift to a lower gear
- 3. If pumping the brakes doesn't work, apply the parking brake
- 4. Release the brake if the wheels lock. Reapply the parking brake if needed.
- 5. Find a "soft" crash area

If power brakes fail, the car can still be stopped with more pressure on the brake pedal.

Vehicle Malfunctions

Fact Sheet 10.6 continued Content Information

Vehicle Failures

Engine failure could happen when the engine quits running completely or becomes flooded or overheats. If the engine just shuts off while driving:

- 1. Shift to neutral
- 2. Look for an escape path
- 3. DO NOT BRAKE HARD
- 4. Pull off the roadway (brake gently but with more pressure on the pedal)
- 5. Stop, try to restart the engine
- 6. If unsuccessful, raise hood and turn on emergency flashers

If the engine becomes flooded, there will usually be a strong odor of gasoline.

To start the engine:

- 1. Push the accelerator pedal to the floor and hold it there
- 2. Turn the key for up to five seconds
- 3. If it does not start, wait several minutes and try again
- 4. Once started, release the accelerator pedal

If the engine overheats while driving:

- 1. Turn air conditioner off if it is on
- 2. Turn on the heater to draw heat off the engine
- 3. If these fail, move to a safe location off the roadway
- 4. Turn engine off
- 5. Do not open the radiator cap
- 6. Seek help

Power steering failure:

- 1. The vehicle can still be steered.
- 2. It will require much more effort on the driver's part.

Unit 10 Adverse Driving Conditions and Emergencies

Collision Reporting

Crash Scene

Typically, there are certain duties to be performed when a driver is involved in a crash.

If a collision with another vehicle, a pedestrian or someone's property occurs, IT IS LEGALLY REQUIRED TO FOLLOW SPECIFIC PROCEDURES. These five steps should be taken in addition to anything required by your state law:

- 1. Stop immediately
- 2. Aid the injured (if qualified, otherwise call for help)
- 3. Prevent further damage
- 4. Send for police
- 5. Exchange Information/Reporting

Take these additional steps after a collision:

- 1. Record witnesses' names and addresses
- 2. Make a sketch of the collision scene
- 3. Take a photograph
- 4. Record such facts as time, date, location, weather and driving conditions
- 5. Note the name of the hospital to which any injured persons were taken
- 6. Note the name and the identification number of the police officer at the collision scene

Give police the facts. Provide honest, accurate facts and never argue about who was to blame. Do not admit fault. Stay at the scene until all information has been recorded. Produce proof of financial responsibility by showing a card that lists current insurance or a bond card. Also, notify appropriate insurance agent promptly.