



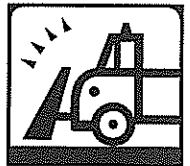
Job Name: \_\_\_\_\_ Job Site Location: \_\_\_\_\_

Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ Finish Time: \_\_\_\_\_ Foreman/Supervisor: \_\_\_\_\_

## Topic 219: Driving on Slippery Surfaces

**Introduction:** Not all vehicles handle alike on slippery surfaces. It is important to know how to handle your vehicle when driving in winter, or wet weather. Unfortunately, a vehicle that starts sliding on ice usually doesn't stop until it hits something solid. Knowing how to handle your vehicle on slippery surfaces could mean the difference between a safe trip and serious trouble. The first rule of driving on slippery surfaces is – Slow Down. The conditions which reduce traction, and therefore, control of your tires, will require you to make corners very slowly, accelerate slowly, and allow much more distance to stop. Give yourself *at least* twice the distance for following traffic and stopping that you would on dry surfaces.

- **Use extra care** to drive carefully on slippery surfaces. Avoid sudden movement of the steering wheel, accelerate and brake smoothly.
- **Make sure your tires** have sufficient tread, at least 4 millimeters. The more tread the greater the traction and amount of control available. Use tire chains or studded snow tires when advisable.
- **Do not lower tire pressure** on slippery surfaces. Higher tire pressures will help to keep tread open and channel snow and water away, and will reduce the risk of sidewall damage to the tire. It is safer to raise the pressure by 10 percent. The only time it may be helpful to lower pressure is driving in deep sand to spread the tire over a greater surface area.
- **Anti-locking brake systems (ABS)** can be a great help in driving on slippery surfaces to keep the vehicle from entering a brake induced skid. However, ABS is not a cure for irresponsible driving and the first rule should still be followed, slow down. If not equipped with ABS the brakes should be pumped, gently depressed and released, to decelerate and stop. Remember, this will require extra room.
- **Front wheel drive vehicles** generally accelerate better on slippery surfaces because of the weight of the engine over the drive wheels giving greater traction. Front wheel drive will not, however, prevent the rear wheels from skidding on a turn taken too fast; slow down.
- **Pick-up truck drivers** and rear wheel drive vehicles should be especially careful on slippery surfaces because of the relatively low weight distribution over the drive wheels. Weighting the bed of the truck or the trunk of the car will aid in improved traction.
- **All wheel drive vehicles** have an added advantage of delivering power and torque to front and rear wheels, aiding traction. However, a common disadvantage of all wheel drive vehicle drivers is overconfidence; the first rule of slow driving applies to all vehicles on slippery surfaces.
- **Traction control helps** in accelerating to prevent wheel spin on slippery surfaces by reducing power to drive wheels. Trucks equipped with differential locks (diff-lock) should engage it on slippery surfaces. To start, select highest gear possible and start slowly and accelerate smoothly. Disengage diff-lock as soon as a non-slippery surface is reached.
- **Driving in rain**, remember the roads are most slick when first wet and water mixes with the oil in and on road surfaces. If rain continues long and hard enough, it will eventually wash clean, but then standing water may cause tires to hydroplane, losing contact with the road surface completely and causing loss of control. Slowing down will prevent hydroplaning.
- **Black ice may exist** under snow or on apparently clear roads in very cold conditions. Ice is more likely to form on bridges and overpasses first because of the cold chilling the road from underneath. Black ice is no more slippery than other ice, but may be more dangerous because the driver is unaware of it.
- **Driving on very rough surface** may cause a vehicle to handle as if it is on a slippery surface because of excessive movement of the suspension system causing lack of traction. Slowing the vehicle will prevent this.
- **Driving on soft earth or deep sand or snow** can cause excessive drag on the wheels and a rapid loss of motion once momentum is lost. It may be impossible to get the vehicle moving again once stopped in these conditions. Ideally, try to keep the vehicle moving at all times, avoid changing gears. If it is necessary to stop, you may get the vehicle moving again by using a higher gear than usual to avoid wheel spin, apply accelerator gently, and lock differential if available.
- **Driving down an icy hill**, even a slight one, may be tricky because of weight and momentum. Use a lower gear to provide engine braking, use just enough brake pedal to keep the wheels from locking. If the wheels do lock and a slide begins, resist the urge to brake harder, release the brake to get the wheels turning again and the vehicle pointed straight, then re-apply the brakes, gentler than the last time, pump brakes gently, and allow much more room to stop on downhill slopes. If possible, avoid routes with steep hills in bad weather.



**Conclusion:** The most common mistakes made by drivers on slippery surfaces are driving too fast because of inexperience and driving too fast because of over-confidence. Driving slower will allow more time to correct mistakes and minimize the effect of mistakes made. The American Automobile Association recommends drivers get used to their vehicles and experience on slippery surfaces by practicing in large, open, empty parking lots. If road conditions are too slippery, don't drive on them, if already driving on them pull over and stop if possible. It is better to arrive at your destination late.

### Work Site Review

Work-Site Hazards and Safety Suggestions: \_\_\_\_\_

Personnel Safety Violations: \_\_\_\_\_

**Employee Signatures:** \_\_\_\_\_  
 (My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)


City of San Angelo Foreman/Supervisor's Signature: \_\_\_\_\_

These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.