

Section III - Dump Truck Operator Training

This portion is written for you, the operator whose responsibility includes the operation and maintenance of a dump truck.



Single Axle Dump Truck

You are expected to know enough about the truck, which you operate, to recognize mechanical defects and avoid the many abuses of a careless or uninformed operator. You should practice preventative maintenance which may include making minor mechanical adjustments and keeping the equipment clean.

Safety Rules

Preventing accidents involving equipment completely depends on the person operating the equipment. **No equipment, regardless of the type or purpose is safer than the operator. Avoiding situations that may produce accidents is solely up to you, the person at the controls.** A careful operator is the most effective safety device.

To help prevent accidents, observe the following safety rules at all times:

1. Become well acquainted with the equipment. Know the location and function of all controls, gauges, and warning devices.
2. Ensure that all drivers and passengers wear seat belts.
3. Obey the instructions on warning decals located in areas of possible danger.
4. Perform a thorough pre-operation inspection before driving any department equipment.
5. Be sure no one is under or around the truck before you start.
6. Clean your shoes of slippery materials to prevent slipping on steps, or off foot pedals.
7. Always face the truck when mounting and dismounting. Never jump from any equipment.
8. Always maintain a firm grip on the hand holds while entering or leaving the truck.
9. Keep the cab free of debris.

10. Keep windshield, windows, and mirrors clean at all times.
11. Check all controls to be sure they are operating correctly and are properly adjusted before you leave.
12. Yield the right-of-way even if it's yours. Drive defensively.
13. Obey all state and local traffic regulations at all times.
14. Always drive at a speed that permits full control of the vehicle and allow for factors like road, weather, and traffic conditions.
15. Don't have loose articles in the cab that may interfere with your complete control of the vehicle.
16. If you get drowsy, contact your supervisor to arrange a break or to switch drivers.
17. Always secure all loads or cargo properly.
18. Inspect the equipment each shift. Don't use defective or unsafe equipment

General Maintenance for Truck Drivers

Your General Responsibility

Each operator is expected to know enough about the truck to recognize mechanical defects that arise during operation and to avoid the many **abuses** which a careless or uninformed driver can inflict on a truck in the course of driving.

1. Do not abuse the truck in any way.
2. Learn to recognize defects immediately and report the symptoms to your supervisor as soon as possible.
3. Make a complete inspection of your truck before your trip and do not leave until everything is in good working order, including the warning lights.

Truck Operations

Your personal safety and that of the occupants of each vehicle you encounter when driving is dependent upon your skill, knowledge, and understanding of the trucks you drive. You represent the department and the State of Missouri when you drive a MoDOT vehicle. It is your responsibility to project the best image possible through safe, courteous operation of all department equipment.

Pre-Operation Inspection

You are responsible for knowing the mechanical condition of your vehicle. Your safety depends on it. The most effective way to accomplish this is through a consistent, thorough pre-operation inspection procedure.

- * Approach the vehicle; note the general condition and look for leakage of water, fuel, oil and lubricants.
- * Raise the hood and check the radiator for coolant level, power steering fluid, and crankcase oil level. Check fan belts for cracks, excessive slack and wear. Check the condition of the wiring. Check air filters and air-flow components. Check for play in the fan. Check for frayed or loose wiring. Note the general condition of all engine compartment components.
- * Enter the cab of truck and,
 - a. Make sure parking brake is set.
 - b. Depress the clutch and move the gear shift lever to the neutral position; then check the clutch for proper release bearing clearance of 1 1/2 inches.
 - c. With the clutch depressed, turn on the ignition switch, start the engine, and set the idle for warm-up. Check for abnormal engine noise and normal instrument readings.
- * While the engine is warming up, check the emergency equipment, including the horn, and windshield wipers. Turn on all lights — including the four-way flashers and turn signals. Exit the cab.
- * Check the front wheels, tires, and lug nuts.
- * Check the right side truck door. Clean the headlights, mirrors, clearance lights, and reflectors, if needed.
- * Check the right rear tires, wheels, and lug nuts.
- * Check the rear of the body area and clean clearance lights, reflectors, and tail lights, if needed.
- * Check the left rear tires, wheels, lug nuts, and the left side of the truck.
- * Re-enter the cab. Recheck all instruments and the air pressure, which should be at the maximum.
- * Check the brakes and stop lights.
- * Back up to check the back-up alarm.
- * Make a test stop before you leave the yard.

During Operation Check

An accident or serious damage can be avoided by staying alert for signs of defects such as unusual noises or vibrations and taking immediate corrective action.

Report any malfunctions or needed repairs to your supervisor.

Starting Procedures

For all engines, make sure the parking brake is set, the transmission is in neutral, and all accessories are turned off. The parking brake has to be set to hold the truck in position. Shifting the transmission to neutral and depressing the clutch reduces the load on the battery. This is even more important in cold weather, because temperature drops reduce reserve cranking power in the battery.

Idle the engine to get your pressures and temperatures into operating ranges. Then operate at slow speeds in low gears until peak levels are reached.

Don't crank the starter motor more than 30 seconds.

Shutdown Procedures

No matter the size, diesel engines require a longer cool down period before shutdown than gasoline engines. In extreme cases, premature shutdown can cause immediate engine failures. Turbocharged diesel engines require even longer cool down periods.

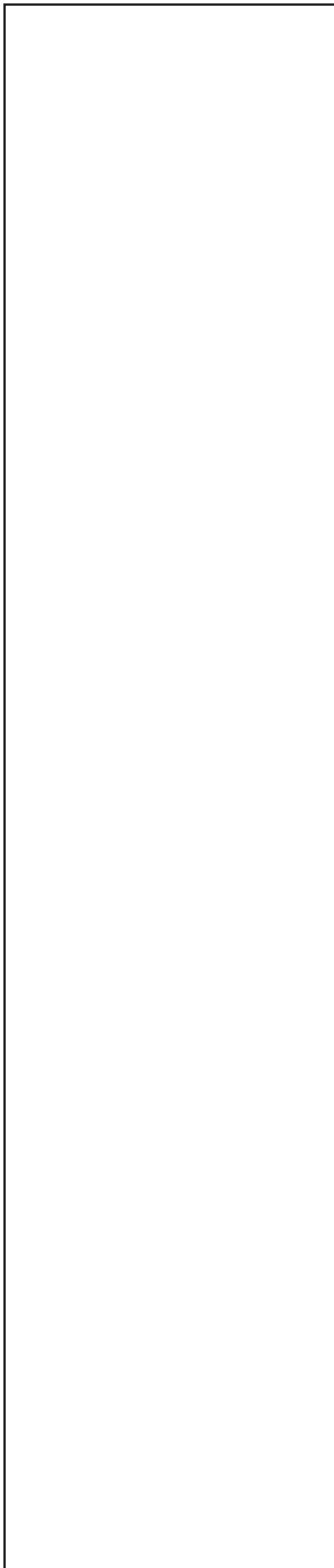
To properly shutdown a diesel engine, stop the truck, set the parking brake, and place the transmission in the neutral position. Set at low idle for 3-5 minutes to allow excess heat to be removed from the engine and the turbocharger. After three minutes, if all gauges indicate proper levels and adequate cooling has occurred, the engine can be safely shutdown.

Fueling Your Dump Truck: Before refueling the dump truck you operate, apply the parking brake. Then turn the engine off.

For your safety, as well as others around you, smoking is prohibited within fifty (50) feet of the vehicle while refueling.



Fueling



Never leave your truck **unattended** while the truck is being fueled. Also, before leaving the building, log your fuel use on the log sheet.

Note: *No smoking with in (50) feet of the vehicle while refueling.*

The Dump Bed

Raise the bed high enough to allow the safety bar to clear the safety bar cradle on the under side of the dump bed.

Then lower the bed until it rests securely on the safety bar.

NEVER place yourself under the dump bed without the safety bar in place. Any failure of a hydraulic-hose or hydraulic-cylinder seal could cause the bed to fall unexpectedly.

Safe Operation

1. Always drive at a safe speed for the current conditions.

Your dump truck is a large, heavy vehicle. It will not accelerate nor stop as quickly as an automobile. When loaded, this is even more pronounced. You must therefore allow yourself a greater “Safety Zone” when operating. Make certain there is enough room between you and oncoming vehicles to safely accelerate when you are pulling into traffic.

Slow down on curvy or rough roads. A loaded truck has a tendency to be top heavy. Downshift, if necessary, to maintain a safe speed and avoid excessive brake use.

Leave plenty of room when following another vehicle. Your truck’s braking system is good, but it naturally takes longer to stop heavier vehicles.

Operator’s Responsibilities

Truck Housekeeping

A clean truck is vital to the operator’s personal safety. The operator of the truck is responsible for making sure that the cab of the truck is cleaned out every day. Removing all trash and debris and securing all loose items prevents further injury to the operator in the case of an accident.

Seat Belts

You **must** wear seat belts at all times while operating or riding in a truck. This is a department policy. Seat belts are the most important safety device you have.

Mirrors

Mirrors are vital to the safe and successful operation of a commercial vehicle since they provide the driver with the principal means of seeing behind the vehicle.

Auxiliary mirrors or convex mirrors are mounted near the large rear view mirror. These mirrors give a larger field of view; however, they tend to distort perspective by making objects appear smaller and farther away than they actually are. You must learn to accurately judge distance when using these mirrors. You must learn to alternately check between the main mirror and the convex mirror to determine the actual position of objects viewed.

Proper mirror adjustment is essential to safe driving and mirrors must be checked at the start of each trip.

Backing

Backing is hazardous under any circumstance. As the driver, you are always responsible for knowing what is behind you. If at all possible, don't back up, when you can drive forward. The rear-view mirror shows only what is to the side but nothing that is low or immediately behind the vehicle. Get out of vehicle and look behind the vehicle before backing or be guided by a spotter who can see all of the area involved.

Use your mirrors when backing, rather than looking over your shoulder. This gives you the proper visual orientation.

Operator should always:

1. Back slowly. Be sure there is sufficient clearance when backing into narrow spaces.
2. Remain properly seated when backing a vehicle. Use the mirrors or a spotter to guide you.
3. Avoid backing long distances. It is much safer to turn around and drive forward.
4. Avoid backing downhill, if at all possible.

Incident Reports

Vehicle Incident or Loss Reports are required for all accidents or injuries involving state-owned motor vehicles or equipment directly or indirectly involved in an incident. A vehicle does not have to be struck or damaged to be indirectly involved.

All cases of fire, theft, attempted theft or vandalism involving state-owned motor vehicles or equipment requires a report.

When private property is involved, don't sign or make a statement to anyone other than your supervisor or a law enforcement officer. Don't admit any fault. Immediately notify a law enforcement agency so they can begin an investigation.

Radio Operations

To operate, first turn the "off-on" control to the (on) position.

Select the tower which corresponds to the nearest mobile relay station. **Due to the number of mobile units in this system, proper operating procedure is essential for maximum efficiency.** Keep the volume control turned up loud enough to receive all transmissions when in the unit. Think before you speak, keep your phrases short, and speak distinctly and slowly so that the receiving operator may clearly understand your message. Pick up the microphone, squeeze the "push-to-talk" button on the side of the microphone.

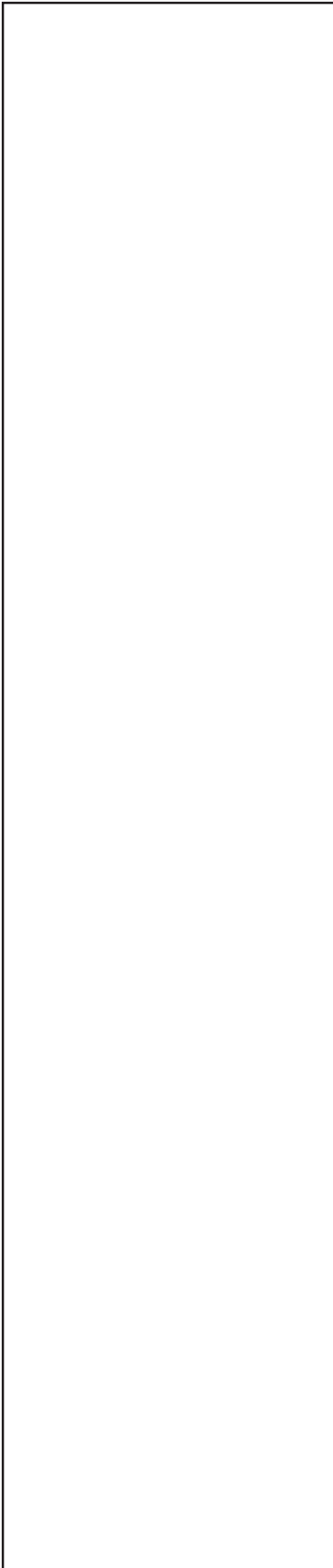


Motorola

While holding the button in, wait for a second before speaking into the microphone. Keep all communications brief and use plain English. When communication is over, the unit initializing the call shall sign off with the FCC assigned call signs KC 6343 or KN 5291 – depending on your geographic area.

Keep these things in mind:

1. Always listen before you transmit.
2. Plan what you are going to say.
3. Speak clearly and distinctly.
4. Use proper operating procedures.
5. Keep conversations short.
6. Run the engine when transmitting to minimize battery drain.
7. Always be courteous and considerate of others using the radio.



8. Never use inappropriate or profane language.
9. In the event of an emergency, emergency transmissions take precedent over all other transmissions. Try to remain calm and speak clearly and use plain English.