



Objective: To recognize the hazards associated with sanitation collection.

One of the primary differences between waste collection and many other jobs is that the collector does most of their work in a workplace that is constantly changing. Drivers and collectors should be trained to recognize the hazards associated with this changing environment and the hazards associated with the collection vehicle itself. These hazard factors include:

- Difference in solid waste composition, weight, size, and toxicity
- Variation in container size, structure, and condition
- Changing weather that could contribute to slippery or slick walking surfaces, temperature changes, debris blowing in the wind, etc.
- Children or loose dogs in the area
- Stinging insects and the possibility of rodents in or around waste
- Street repairs and irregular street surfaces
- Both parked vehicles and vehicles in motion (which also includes the collection vehicle itself)
 - The hazards associated with the collection vehicle include the driver's blind spot and the potential of an immediate stop throwing a step rider from the steps.



SAVE RIDING PROCEDURES

Riding Position

- Collectors should ride in the vehicle cab when traveling to or between collection routes. When adequate seating is not available inside the cab, collectors should be transported to and from the collection route by a separate vehicle.
- Riding steps should be used only when moving forward for short distances (0.2 mile or less) at slow speeds (10 miles per hour or less). Collectors should not ride the steps when the vehicle is backing.
- When the riding steps are in use, drivers and crew members should be alert for obstructions such as poles and tree limbs, parked vehicles, and tight clearances that could injure step riders.

Boarding and Dismounting from the Riding Steps

- When riding on a step, both feet should be on the step and both hands should be firmly holding onto the handhold. If either the step or the handholds are inadequate, approved modifications may be considered.
- Collectors should step—not jump—on or off riding steps.
- Collectors should always step onto a flat, level surface when dismounting. This is to reduce potential for ankle, knee, and hip injuries.
 - Riders should always look where they are stepping so as to not step 'blindly' into a hole, crack, or other hazard that could cause injury.
- Collectors should board or dismount from these steps only when the vehicle is completely stopped, and the driver is aware of the collector's location.
- Wear slip resistant footwear and avoid narrow cleats or spikes that could get stuck in step grates.
- Be observant and stay clear of the driver's blind spot behind the vehicle.
- Drivers should wait for the collector to signal before moving. The collector can signal the driver by hand or with a buzzer mounted for easy activation by step riders.
- Signals should be uniform and consistent with all employees to avoid confusion.







Sudden Stops (continued)

Drivers should avoid sudden stops that could cause step riders to be thrown from the vehicle...

SAVE BACKING PROCEDURES

Before backing, drivers should:

- turn on the vehicle's hazard lights and roll down the window,
- turn off all but two-way radios,
- make sure that no one is on the riding steps, and
- visually locate workers on foot to make sure that they are clear of the vehicle's path.

While backing, drivers should:

- stop backing immediately if visual contact is lost with workers on foot and only resume backing after visual contact is restored with workers on foot,
- use a coworker as a spotter, and
- use agreed upon hand signals to communicate with the spotter.

Other crew members should:

- step off the riding steps before the driver begins to back,
- remain inside the vehicle cab unless needed to act as a spotter, and
- never cross or step behind the vehicle when it is backing or when backup lights are on.

Spotters should:

- remain visible in the driver's mirrors and stay clear of the vehicle's path,
- maintain a clear view of the hazard area (driver's blind spot) behind the vehicle,
- avoid walking backward,
- use agreed upon hand signals to communicate with the driver,
- be sure that no one is on the riding steps or behind the vehicle before signaling the driver to start backing,
- immediately signal the driver to stop if any person or object enters the area behind the truck, and
- signal the driver to stop if the spotter must change positions when the vehicle is backing; the spotter should then move to the new position and signal the driver to continue.

DRIVER TRAINING

The Center for Disease Control (CDC) and the National Institute for Occupational Safety and Health (NIOSH) recommend that collection vehicle operators go through a defensive driver training before being assigned to a truck.

Drivers and collectors can also visualize some truck and compactor hazards by marking out a "danger zone" during training. This zone extends in front, behind, and often beside the truck. The front zone would extend as far as it takes the truck to stop without stopping so quickly that it would throw a rider from the steps. The rear and side danger zones extend as far as ejected waste can travel during the compacting cycle and should also consider the driver's blind spot. Under different conditions such as icy pavement, these zones may change sizes.







DRIVER TRAINING (CONTINUED)

Collection trucks handle much differently than regular vehicles. They are much more top-heavy, and thus are more likely to roll over. Factors that increase the chance of rollover include irregular terrain, driving with the tailgate raised, and abrupt steering or braking. Collection vehicles also have much more limited visibility than normal vehicles. They have no back windows for rear visibility and the blind spots on the sides of the truck are often much bigger as well. Additionally, the time it takes a collection truck to stop is much longer than most vehicles, as the collection truck is much heavier. The distance it takes a truck to stop in an emergency depends on the road surface, condition, and grade, as well as the tire size and condition, the weight of the load, the speed the truck was initially going, and the condition of the brakes. Increased weight and increased speed of the truck always increases the minimum stopping distance.

WEIGHT RESTRICTIONS

Collectors should not be lifting bins, bags, or other items that exceed 50 pounds. Personal weight restrictions may differ and should be followed at all times. While lifting, maintain the three gentle curves in your back: inward at the neck, out at the chest region, and in at the lower back. Never put unnecessary strain on your back. If a load is too heavy to lift, get the help of a co-worker or use some mechanical assistance.

EQUIPMENT MAINTENANCE

Failure to perform vehicle and equipment maintenance opens up the possibility for accidents and losses. If equipment is not in safe operating condition, it should not be put back into service until the issues have been fixed. On the same note, if the equipment is in service and develops a problem on the route, the vehicle should be taken out of service until it is repaired. Employees operating on or with equipment that isn't working properly are more likely to try to compensate for the equipment's issues, which could draw their attention away from completing the job safely.

Trained, competent maintenance employees or contractors should perform inspection and repair work. The cleaning, inspection, and repair of equipment should be done in accordance with the manufacturer's recommendations, including regular periodic inspections. These inspections should ensure that all required safety features are operational and functioning. Any reported malfunction or defect that affects the safe operation of the equipment should be repaired prior to placing equipment into service.

As all equipment operates differently, it is recommended that training include information contained in the operator's manual or a training program / video from the vehicle manufacturer is utilized. When performing daily inspections of equipment, refer to the vehicle manufacturer's specific recommendations. The last page of this program provides a checklist that can be utilized for daily inspections of collection equipment before use.

If equipment is not in safe operating condition, it should not be put back into service until the issues have been fixed.









ROLL OFF AND COMMERCIAL DUMPSTERS

Collection of dumpsters can pose serious hazards to workers. Employees have been caught in between or crushed by dumpsters and the collection vehicles. To ensure the safety of all employees:

Ensure that all waste disposal truck operators attach disposal containers in the proper manner.

• Employees shall be made aware of the mandatory procedure of using the safety latches to secure the dumpster's trunnion bar to the truck. This safety training should be completed and documented. Training should include information on the potential consequences of lifting a dumpster if the safety latches are not engaged. Wire hoisting cables should also be inspected regularly to ensure that they are in good condition.

Ensure that continuous training and monitoring for compliance is conducted for all high-risk tasks.

Scheduled retraining should be conducted with employees who are involved in high hazard operations. This retraining
could include random monitoring as well as regularly scheduled training. A compliance enforcement policy, which
works in conjunction with their disciplinary policy shall also be in place.

Ensure that all employees follow written policies and procedures for use of personal protective equipment.

Training on the written procedures and policies for the use of personal protective equipment should be completed before any employee is assigned to a job which requires personal protective equipment use. All training documentation shall be kept on file and a monitoring system should be developed and utilized to assure compliance with manufacture's recommendations and OSHA CFR 1910 standards for personal protective equipment.

This information is from CDC guidelines. For additional information, you can also refer to OSHA's Safety and Health Information Bulletin, Crushing Hazards Associated with Dumpsters and Rear-loading Trash Trucks at https://www.osha.gov/dts/shib/shib120903.html.

SAFETY EQUIPMENT

Personal Protective Equipment (PPE)

Common wastes that are hazardous to the collector include liquid and dry chemicals, gasoline or solvents, waste that contains asbestos, broken glass, sharp metal such as needles or razor blades, florescent light tubes, aerosol cans, soiled diapers, etc. The following guidelines should be referred to in an effort to ensure that collectors are adequately protected from these hazards:

- All collectors will wear durable work gloves to prevent cuts or abrasions from handling trash and debris. For example, sticks, broken glass, and loose razors can be a cut and abrasion hazard to collectors. Ensure gloves are waterproof to protect from leaking chemical hazards and potential biohazard exposures.
 - The best glove would be waterproof, provide good grip in wet or dry conditions, prevent cuts and abrasions, be comfortable, flexible, and also durable.
- All collectors should also wear eye protection to protect from wastes that may break, shatter, or explode during compacting. For example, lightbulbs, batteries, and chemical containers may shatter or burst during the compacting process, which in turn presents a hazard to collectors.
- Collectors should cover their skin as much as possible. Coveralls or other means of skin coverage are recommended, and care should be taken to choose a fabric that is comfortable during the summer months. Sanitation collectors should wear highly visible colors to help vehicle operators and other drivers visually locate the collectors' positions. If collectors are required to work during non-daylight hours, they should be issued and required to wear light reflective clothing.









SAFETY EQUIPMENT

Personal Protective Equipment (PPE) (Continued)



- Sanitation collectors should wear slip resistant footwear to protect against slips and falls from riding steps.
 - Shoes with cleated, self-cleaning soles are appropriate for muddy conditions often found at landfills. However, collectors should avoid shoes with very narrow cleats or spikes that might get caught in open mesh riding steps or make walking on pavement difficult.
- Steel toed or composite toed boots can also offer protection against falling items dropped on the feet. Protective toe boots can help reduce the possibility of an injury resulting from large or heavy items falling while dumping.

Please see the PPE Policy for more information regarding personal protective equipment.



Audible Alarms

- To warn workers and pedestrians of backing, sanitation collection vehicles should be equipped with audible alarms that can be distinguished from the surrounding noise level.
- ANSI [1992] requires such alarms to have a minimum output of 87 decibels. The effectiveness of a backup alarm depends on the worker's ability to hear it and remove himself from the danger zone. Because of this, these alarms should be designed and installed so that they are activated before the vehicle moves, sounding immediately when the transmission is shifted to reverse.

VEHICLE FACILITIES

Sanitation collection vehicles should be equipped with enough seating space inside the cab for all members of a collection crew.

Riding Steps

If sanitation collectors are permitted to ride the riding steps while on the collection route, the steps should be as follows:

- Constructed of perforated floor materials to prevent accumulation of debris
- Constructed of slip resistant materials and large enough to accommodate the worker comfortably
 - In addition, slip resistant handholds should be readily accessible.
- Located so that workers can easily board and dismount from them
- Located behind
- the rearmost axle of the vehicle







EXISTING TECHNOLOGY

Though technology is not a substitute for safe work practices, it can improve the safety of workers near moving vehicles. Employers, equipment manufacturers, and suppliers of sanitation collection equipment should evaluate the applicability of the following equipment and devices for improving worker safety.

Personal Warning Devices

• Small, compressed gas horns worn on the belt can be sounded if the worker trips or falls in the path of backing vehicles.

Radio Communications

Sanitation collectors can use two-way radios to communicate with vehicle drivers. Radio communication should not
replace visual contact between drivers and spotters, but it can improve safety by maintaining communication if visual
contact is momentarily lost.

Rear View Mirrors

• Additional convex mirrors can be mounted at the rear corners of some vehicles to provide vision across the back.

These devices supplement the rearview mirrors traditionally mounted on each side of the vehicle at the cab windows.

Closed-Circuit Television

Closed circuit television systems are currently used on some vehicles to monitor the blind spot behind the vehicle.

Sensor Technology

• Infrared or ultrasonic sensing units can detect persons or other objects in the path of a backing vehicle and activate an alarm inside the cab. These devices are being used successfully on school buses to alert drivers to children who enter the blind spots in front of the buses; the devices have already been installed on sanitation collection vehicles in some areas.



QUESTION?

Contact: **RENEE RHODES**KMIT Risk Control Manager
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GARBAGE TRUCK DAILY INSPECTION CHECKLIST

Check Any Defective Item and Give Detail Under "Remarks." Truck/Tractor No	Date:							
Air Compressor Heater Safety Equipment	,							
Air Lines								
Battery		•						
Brake Accessories Head – Stop Spare Bulbs & Fuses Brakes Tail – Dash Spare Seal Beam Carburetor Turn Indicators Springs Starter Defroster Muffler Tachograph Drive Line Oil Pressure Transmission Engine On-Board Recorder Tires Fifth Wheel Radiator Wheels Front Axle Rear End Windows Fuel Tanks Reflectors Windshield Wipers Steering Steering Wheels Doors Coupling (King) Pin Roof Springs Springs Other: Remarks: Condition of the above vehicle is satisfactory Driver's Signature: Above defects corrected Above defects need not be corrected for safe operation of vehicle Date: Da		Air Lines				•		
Brakes		•		Lights		•		
Carburetor		Brake Accessories		Head – Stop		Spare Bulbs & Fuses		
Clutch		Brakes		Tail – Dash		Spare Seal Beam		
Defroster Muffler Tachograph Drive Line Oil Pressure Transmission Engine On-Board Recorder Tires Fifth Wheel Radiator Wheels Front Axle Rear End Windows Fuel Tanks Reflectors Windshield Wipers Steering Other: Trailer(s) No.(s) Brake Connections Hitch Tarpaulin Brakes Landing Wheels Coupling (King) Pin Roof Springs Springs Other: Remarks: Remarks: Above defects corrected Above defects need not be corrected for safe operation of vehicle Mechanic's Signature: Date: Date:		Carburetor		Turn Indicators		Springs		
Drive Line		Clutch		Mirrors		Starter		
Engine		Defroster		Muffler		Tachograph		
Fifth Wheel		Drive Line		Oil Pressure		Transmission		
Front Axle		Engine		On-Board Recorder		Tires		
Fuel Tanks Reflectors Windshield Wipers Other: Trailer(s) No.(s) Brake Connections Hitch Tarpaulin Brakes Landing Wheels Coupling Chains Lights – All Tires Coupling (King) Pin Roof Springs Doors Other: Condition of the above vehicle is satisfactory Driver's Signature: Above defects corrected Above defects need not be corrected for safe operation of vehicle Mechanic's Signature: Date: Date: Date:		Fifth Wheel		Radiator		Wheels		
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Organization:



Sanitation Policy and Procedure

This form documents that the training specified above was presented to the listed participants. By signing below, each participant acknowledges receiving this training.

Date:

Organization.	
Trainer:	Signature:
CLASS PARTICIPANTS:	
NAME:	SIGNATURE:
NAME:	SIGNATURE
NAME:	SIGNATURE: