

RECEIPT

DATE 4/17/26No. 932563RECEIVED FROM Wood Ingenuity LLC\$ 350.00Three hundred fifty and $\frac{00}{100}$ DOLLARS FOR RENT FORNew DE-SW-2214

ACCOUNT	
PAYMENT	
BAL. DUE	

 CASH CHECK MONEY ORDER CREDIT CARDFROM 2034

TO _____

BY M.M.



RECEIVED
APR 17 2026
DNREC - WHS

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
DIVISION OF WASTE AND HAZARDOUS SUBSTANCES
COMPLIANCE AND PERMITTING SECTION

89 KINGS HIGHWAY
DOVER, DELAWARE 19901

TELEPHONE: (302) 739-9403
FAX: (302) 739-5060

SOLID WASTE TRANSPORTER PERMIT APPLICATION

Language Preference:

Instructions: You must complete this application in its entirety and attach all applicable documentation. (Note: For applicants renewing an existing permit, this application requires the submission of updated information and documentation. References to material submitted under previous applications are no longer accepted.)

The application must be signed by the company owner or a corporate officer. A check or money order payable to the "State of Delaware" must accompany this application and be sent to:

Delaware Department of Natural Resources and Environmental Control
Compliance and Permitting Section
89 Kings Highway
Dover, DE 19901

1. Type of Permit

- New – **SCRAP TIRES ONLY** Submit a check or money order, payable to the "State of Delaware," in the amount of \$75.00.
- New – **ALL OTHERS** Submit a check or money order, payable to the "State of Delaware" in the amount of \$350.00.
- Renewal: Permit # DE-SW- _____ Expiration Date _____

Please indicate the term for which you desire your permit to be issued. Submit a check or money order, payable to the "State of Delaware," for the indicated permit fee.

SCRAP TIRES ONLY

ALL OTHERS

- One Year - \$75.00
- Two Years - \$125.00
- Three Years - \$175.00
- Four Years - \$225.00
- Five Years - \$275.00

- One Year - \$350.00
- Two Years - \$650.00
- Three Years - \$950.00
- Four Years - \$1250.00
- Five Years - \$1550.00

2. Release to Public

Do you wish to be included on the list of transporters that is provided to persons requesting a list of Delaware permitted solid waste transporters? Yes No

3. Company Information

Company Name Wood Ingenuity LLC

Location Address:	Mailing Address:
516 Owens Rd, Queen Anne, MD 21657	Same

Contact: Mark Boyle Title: Principle

Business Phone: 443-966-3464 Fax: _____

E-mail: mboyle@woodingenuity.com

24 hr Emergency Contact Phone: 443-262-6655

4. Company Ownership Information

(a). Please indicate the company type:

- Proprietorship
- Partnership
- Corporation - If company is a corporation, indicate city, state, and date of incorporation.

City: _____ State: _____ Date: _____

- Municipality
- Public institution
- Limited Liability Corporation (LLC) State: MD
- Other: (must specify) _____

(b). For each Owner, Partner, or Corporate Officer, attach a list with name, title, mailing address, date of birth, and % ownership. Include all stockholders owning greater than 5% outstanding shares.

Attachment 1A

(c). If company is owned by or affiliated with a parent company, attach parent company name, address & mailing address, and % ownership.

- Attachment _____
- No parent company

5. Company locations in Delaware

List name and street address of each company location, including freight terminals, within the State of Delaware.

- Attachment _____
 No Delaware locations

6. Company Affiliates

List name, location and mailing addresses, nature of business relationship of all company Affiliates, which affiliates are engaged in the business of waste transport, treatment, storage, disposal, recovery or reclamation. (Affiliated companies are defined as those companies owned by the same owners, corporate officers, or parent company.)

- Attachment _____
 No affiliates

7. Type of Waste to be Transported

(a). Check all that apply. Refer to Delaware's *Regulations Governing Solid Waste* for definitions of waste categories.

- Residential waste
 Commercial waste (from **non-manufacturing, non-processing** businesses and offices)
 Industrial waste (from a manufacturing or industrial process)
 Dry waste: construction/demolition debris
 trees/stumps
 other (must specify) _____
 Ash: municipal incinerator
 coal ash
 other (must specify) _____
 Infectious waste
 Non-hazardous petroleum-hydrocarbon contaminated soils
 Asbestos-containing waste
 Scrap Tires

(b). Does your company collect and transport residential (household) waste from single family homes, condominiums and apartment complexes in Delaware? Yes No

(c). If you answered "YES" to question 7.b., above, does your company provide recycling services to those customers? Yes No N/A

(d). If you offer recycling services, does your company collect and transport the recyclables separately from the waste generated by your customers? Yes No

(e). If you offer recycling services, are the recyclables ultimately taken to an incinerator (waste-to-energy) or landfill? Yes No

8. Treatment, Storage, and Disposal Facilities

- (a). Do you cross state lines with the waste? Yes No
- (b). Identify in an attachment **all** solid waste Treatment, Storage, Disposal Facilities, Reclamation Facilities and Transfer Stations to which the waste will be transported.
- Delaware Solid Waste Authority locations: (attachment) 1B
 - Clean Earth of New Castle, Inc. (thermal treatment facility for PHC-soils)
 - Delaware Recyclable Products, Inc. (dry waste, commercial, industrial, and PHC-soils)
 - Other in-state solid waste facilities, including private facilities: (attachment) _____
 - Out of state solid waste TSD facilities: (attachment) 1B

9. Other Transporter Permits

- (a). Attach a copy of your home state solid waste transporter permit. (N/A if Delaware is your home state.)
- Attachment _____
 - Not applicable-No transporter permit required for these solid waste types in our home state.
- (b). List solid waste transporter permits held in other states.
- Attachment _____
 - No transporter permits in other states
- (c). Indicate your Federal DOT number and Motor Carrier number:
- DOT# 4035268 MC# _____
- N/A If N/A, please provide an explanation, on the following page, as to why you are not required to have a DOT or MC number.
-

10. Proof of Financial Responsibility

The transporter must submit proof of financial responsibility as established in section 7.2.4 of Delaware's *Regulations Governing Solid Waste*. This proof may be established by a Certificate of Insurance, with MCS-90 endorsement where applicable, or by other means approved by the Department. (The Certificate of Insurance must identify the **Department of Natural Resources and Environmental Control, Compliance and Permitting Section** as the certificate holder.)

- (a). Are you for-hire in interstate commerce? Yes No (For-Hire means you are in the business of transporting, for compensation or payment, wastes generated by a company other than your own.)
- (b). Do you transport in the State of Delaware Only (Intrastate)? Yes No
- (c). Do you transport Interstate? Yes No

- (d). Certificate of Insurance must be attached and include minimum automobile liability coverage as follows:

	FOR-HIRE INTERSTATE	ALL OTHERS
Residential Waste	\$750,000.00 + MCS-90 <input checked="" type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Commercial Waste	\$750,000.00 + MCS-90 <input checked="" type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Industrial Waste	\$750,000.00 + MCS-90 <input checked="" type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Dry Waste	\$750,000.00 + MCS-90 <input checked="" type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Ash	\$750,000.00 + MCS-90 <input type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Infectious Waste	\$1,000,000.00 + MCS-90 <input type="checkbox"/>	\$750,000.00 + MCS-90 <input type="checkbox"/>
Non-Hazardous Petroleum Contaminated Soils	\$750,000.00 + MCS-90 <input type="checkbox"/>	\$350,000.00 <input type="checkbox"/>
Asbestos	\$1,000,000.00 + MCS-90 <input type="checkbox"/> (For Hire & Private)	\$350,000.00 <input type="checkbox"/>
Scrap Tires Only	\$350,000.00 <input checked="" type="checkbox"/>	\$350,000.00 <input type="checkbox"/>

11. Spill Control and Safety

List all spill control and safety equipment which will be carried on each vehicle. (**Note:** Separate lists by type of vehicle and type of waste may be required.) Attach a copy of the Spill Control Plan. The Spill Control Plan **must** contain the following elements: (1) List of safety and spill control equipment carried in the vehicle, (2) Driver preventive measures, (3) Driver immediate corrective actions, (4) Company internal communications, (5) Company external communications including the **Delaware Emergency Reporting Numbers: 1-800-662-8802 and 302-739-9401**, and (6) Cleanup and decontamination measures.

Spill Control Plan: Attachment 1C

12. Driver Training

IN SUMMARY OR OUTLINE FORM, describe the procedures that your company takes to ensure that all company drivers are safe and competent drivers. Small owner-operators may describe their years of experience and driving record in lieu of a formal program.

- (a). Include requirements for special licenses (e.g. CDL, including any special endorsements), any special training received, including dates training was received (e.g. asbestos training), and any ongoing company programs. (e.g. weekly safety meetings or annual refresher courses);
- (b). Include your company procedure for periodic checks of the driver's records for moving violations, and your company policy on progressive counseling/discipline based on points;
- (c). Describe how drivers are instructed in the following:
 - (i) Knowledge of proper handling procedures for the type of solid waste being transported.
 - (ii) Familiarity with the approved accidental discharge containment plan. (Spill Control Plan)
 - (iii) Familiarity with the conditions of the solid waste transporter's permit.

Driver Training, attachment _____

Please not - We have (3) drivers with: (43) years experience and clean record, (15) years experience and clean record and (20) years experience and clean record. We also use Selective insurance safety training programs. Our insurance company checks driving records. We also have GPS cameras / trackers in each vehicle and receive real time alerts on unsafe driving actions.

13. Vehicle Identification

On the form provided with this application, list **MAKE, MODEL, YEAR, SERIAL NUMBER, LICENSE PLATE NUMBER, STATE OF REGISTRATION, MANUFACTURER'S GVWR and OWNERSHIP** of all vehicles used for the transportation of solid waste. You must list both motorized and container units. (If you maintain a list of company vehicles in a computer database you may submit a print out of the vehicles provided it contains the information requested herein.)

NOTE: You must notify CAPS in writing of any changes to information contained within this application, such as additions or deletions of vehicles, in accordance with conditions of the issued permit.

Vehicle List Attached

14. Vehicle Operator Information

Is a list of all vehicle operators attached? Yes

What tax form do you submit to the IRS for your vehicle operators?

Form W-2

Form 1099-Misc

Other

15. Environmental Record

List all criminal citations, arrests, convictions, civil or administrative violations, and civil or administrative enforcement actions, and the disposition(s) thereof for the violation or alleged violation of any environmental statute, regulation, permit, license, approval, or order, regardless of the state in which it occurred. Indicate whether it was a local, state, or federal violation or alleged violation. List all such items for the applicant, and if the applicant is other than an individual, for any employee while employed by the applicant, or any partner, officer, or director of the applicant as an individual or for any former business of such partner, officer, or director. For civil or administrative violations or alleged violations, list all such items for the last five (5) years from the date of the application. Information submitted under this section is subject to verification. **Failure to submit complete and accurate information may lead to permit denial or revocation.**

Attachment _____

No violations within the specified time period

16. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, upon personal knowledge and information, the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

**Signature Mark E Boyle Date 4/14/2026
Print Name Mark E Boyle Title Principle

**** A legal owner or corporate officer must sign the application ****

Attachment 1A

Company:

Wood Ingenuity LLC
516 Owens Rd.
Queen Anne, MD 21657

Owner Information:

David W. Boyle, President



6% ownership

Mark E. Boyle, Vice President



94% ownership

Attachment 1B

Disposal locations:

DE:

- Cherry Island Landfill
1706 East 12th Street
Wilmington, DE 19809
- Sandtown Landfill
1107 Willow Grove Rd.
Felton, DE 19943
- Jones Crossroads Landfill
28560 Landfill Lane
Georgetown, DE 19947

MD:

- RB Baker & Sons Inc.
501 4-H Park Rd.
Queenstown, MD 21658
- Republic Services Landfill
10710 Philadelphia Rd.
Perry Hall, MD 21128

Wood Ingenuity LLC

Spill Control and Safety

I. Spill Prevention Measures

The primary focus should be on preventing spills from happening in the first place.

- **Proper Waste Segregation:** Ensure that only approved materials are placed in the roll-off dumpster. **Hazardous materials**, such as chemicals, oils, or biohazards, often require specialized containers and disposal procedures and should generally not be put in a standard roll-off dumpster.
- **Site Assessment:** Before placing the dumpster, assess the location for proximity to storm drains or drainage pathways. Position the dumpster away from these areas to minimize environmental impact in the event of a leak.
- **Secondary Containment:** For dumpsters holding liquids or potential liquid contaminants (e.g., oily rags, empty drums), consider using a secondary containment system like a spill deck or a lined containment area to catch any leaks.
- **Maintenance and Inspection:** Regularly inspect the dumpster for signs of rust, cracks, or other damage that could lead to a leak. Also, ensure the site around the dumpster is kept clean and clear of debris (good housekeeping practices).
- **Proper Loading:** Do not overfill the dumpster past the fill line to ensure the cover or tarp can close properly, preventing spillage during transport.
- **Staff Training:** Train all employees on proper waste handling procedures, the types of spills that might occur, and their roles in prevention and response.

II. Spill Response Plan (The "Three Cs")

A clear, step-by-step guide is essential for a quick and effective response.

1. Control

- **Assess the situation:** Identify the spilled substance and assess potential risks using Safety Data Sheets (SDS) if available.

- **Stop the source:** If it is safe to do so, stop the source of the spill (e.g., upright a container, plug a leak).

2. Contain

- **Secure the area:** Evacuate non-essential personnel and establish a perimeter with caution tape.
- **Limit spread:** Use absorbent materials from the spill kit: socks, booms, or granular absorbents to create a dam and prevent the spill from entering storm drains or spreading further. Never wash a spill down a drain.
- **Notify authorities:** Immediately contact internal supervisors and external emergency services (e.g., Hazmat team, fire department) as required by law.
 - Wood Ingenuity Point of Contact – Mark Boyle 443-262-6655
 - Delaware – 911, 302-739-9401 or 800-662-8802
 - Maryland – 911, 866-633-4686

3. Clean Up

- **Use appropriate equipment:** Wear the necessary Personal Protective Equipment (PPE) (gloves, goggles, etc.) and use spill kits appropriate for the type of material spilled (oil-only, universal, or chemical-specific).
- **Collect contaminated materials:** Clean up the spill using absorbents and place all contaminated materials (pads, gloves, etc.) into approved, heavy-duty plastic bags included in spill kit, separate and label for proper disposal.
- **Dispose properly:** Arrange for the waste to be characterized, manifested, and transported by a licensed hazardous waste disposal contractor to an approved facility.
- **Decontaminate and restock:** Decontaminate the area and equipment and restock the spill kit.
- **Review and report:** Document the incident thoroughly and review the plan to prevent future occurrences.

III. Required Materials

Maintain a clearly labeled and easily accessible spill kit near the roll-off dumpster location. A basic kit should include:

- Absorbent pads, socks, or booms
- Absorbent granular material (e.g., diatomaceous earth)
- Personal Protective Equipment (PPE), such as chemical-resistant gloves, safety glasses, and masks
- Thick plastic garbage bags or a designated hazardous waste container
- Drain covers or temporary berms
- Small shovel, broom, and dustpan
- A laminated copy of the spill management protocol and emergency contact information

Drivers List

Driver Name	Address	City	State	Zip	License #	DOB	ExpirationDate
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Vehicle List

Year	Make / Model	VIN	State	Tag	Ownership	GVWR
2025	Kenworth T880 Rolloff	1NKZX4EX1SJ131756	Maryland	E74047D	Wood Ingenuity	80000
2025	Kenworth T480 Rolloff	2NK5LJ0XXSM134499	Indiana	Temp Tag T923200	Wood Ingenuity	80000
2025	Kenworth T880 Rolloff	1NKZX4EXXSJ131755	Maryland	T2340055	Wood Ingenuity	80000
2025	Kenworth T280 Rolloff	2NK3HM6X1SM166050	Maryland	T2340060	Wood Ingenuity	26000

Emergency Contact #'s

Wood Ingenuity

Office: 443-966-3464

Mark: 443-262-6655

Kelly: 443-786-8107

Accident or medical emergency

Call 911

Spill or Leak of Hazardous Materials

Maryland

Maryland Department of the Environment 866-633-4686

Delaware

DNREC 302-739-9401

Flat Tire

MD Eastern Shore

Spurry's Tire Service 410-822-7384

MD Western Shore

Maryland Truck Tire Services 410-483-1600 or 410-792-7833

DE

Mr. Tire 302-697-9506

Mechanical Failure Requiring a Tow

MD Eastern Shore or DE

Ridgley Auto Sales, Brian Dunn, 410-364-5607 or cell 443-786-0618

MD Western Shore

Automotive Support, John Hessman, 301-384-4869 or cell 301-404-7844

Driver's Vehicle Inspection Report

Check ANY Defective Item and Give Details under "Remarks."

DATE: _____

TRUCK/TRACTOR NO. _____

- | | | |
|--|--|--|
| <input type="checkbox"/> Air Compressor | <input type="checkbox"/> Horn | <input type="checkbox"/> Springs |
| <input type="checkbox"/> Air Lines | <input type="checkbox"/> Lights | <input type="checkbox"/> Starter |
| <input type="checkbox"/> Battery | Head – Stop | <input type="checkbox"/> Steering |
| <input type="checkbox"/> Brake Accessories | Tail – Dash | <input type="checkbox"/> Tachograph |
| <input type="checkbox"/> Brakes | Turn Indicators | <input type="checkbox"/> Tires |
| <input type="checkbox"/> Carburetor | <input type="checkbox"/> Mirrors | <input type="checkbox"/> Transmission |
| <input type="checkbox"/> Clutch | <input type="checkbox"/> Muffler | <input type="checkbox"/> Wheels |
| <input type="checkbox"/> Defroster | <input type="checkbox"/> Oil Pressure | <input type="checkbox"/> Windows |
| <input type="checkbox"/> Drive Line | <input type="checkbox"/> On-Board Recorder | <input type="checkbox"/> Windshield Wipers |
| <input type="checkbox"/> Engine | <input type="checkbox"/> Radiator | <input type="checkbox"/> Other |
| <input type="checkbox"/> Fifth Wheel | <input type="checkbox"/> Rear End | |
| <input type="checkbox"/> Front Axle | <input type="checkbox"/> Reflectors | |
| <input type="checkbox"/> Fuel Tanks | <input type="checkbox"/> Safety Equipment | |
| <input type="checkbox"/> Heater | Fire Extinguisher | |
| | Flags – Flares – Fuses | |
| | Spare Bulbs & Fuses | |
| | Spare Seal Beam | |

TRAILER(S) NO (S). _____

- | | | |
|--|---------------------------------------|------------------------------------|
| <input type="checkbox"/> Brake Connections | <input type="checkbox"/> Hitch | <input type="checkbox"/> Tarpaulin |
| <input type="checkbox"/> Brakes | <input type="checkbox"/> Landing Gear | <input type="checkbox"/> Tires |
| <input type="checkbox"/> Coupling Chains | <input type="checkbox"/> Lights – All | <input type="checkbox"/> Wheels |
| <input type="checkbox"/> Coupling (King) Pin | <input type="checkbox"/> Roof | <input type="checkbox"/> Other |
| <input type="checkbox"/> Doors | <input type="checkbox"/> Springs | |

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

Mechanic's Signature _____ Date _____

Driver's Signature _____ Date _____


Please note, the expiration date as stated on this form relates to the process for renewing the Information Collection Request for this form with the Office of Management and Budget. This requirement to collect information as requested on this form does not expire. For questions, please contact the Office of Registration, Financial Responsibility Filings Division.

A Federal Agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2126-0008. Public reporting for this collection of information is estimated to be approximately 2 minutes per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Motor Carrier Safety Administration, MC-RRA, Washington, D.C. 20590.

ENDORSEMENT FOR MOTOR CARRIER POLICIES OF INSURANCE FOR PUBLIC LIABILITY UNDER SECTIONS 29 AND 30 OF THE MOTOR CARRIER ACT OF 1980 FORM MCS-90

000001S 2738276 395

Issued to WOOD INGENUITY LLC of 516 OWENS RD, QUEEN ANNE, MARYLAND 21657-1502
(Motor Carrier name) (Motor Carrier State or Province)
Dated at MID ATLANTIC REGION on this 13 day of APRIL, 2026
Amending Policy Number: s 2738276 Effective date: March 3, 2026
Name of Insurance Company: SELECTIVE WAY INSURANCE COMPANY

Countersigned by: 
Authorized Company Representative

The policy to which this endorsement is attached provides primary or excess insurance, as indicated for the limits shown (check only one):

- This insurance is primary and the company shall not be liable for amounts in excess of \$750,000 for each accident.
- This insurance is excess and the company shall not be liable for amounts in excess of for each accident in excess of the underlying limit of for each accident.

Whenever required by the Federal Motor Carrier Safety Administration (FMCSA), the company agrees to furnish the FMCSA a duplicate of said policy and all its endorsements. The company also agrees, upon telephone request by an authorized representative of the FMCSA, to verify that the policy is in force as of a particular date. The telephone number to call is: 1-800-777-9656.

Cancellation of this endorsement may be effected by the company of the insured by giving (1) thirty-five (35) days notice in writing to the other party (said 35 days notice to commence from the date the notice is mailed, proof of mailing shall be sufficient proof of notice), and (2) if the insured is subject to the FMCSA's registration requirements under 49 U.S.C. 13901, by providing thirty (30) days notice to the FMCSA (said 30 days notice to commence from the date the notice is received by the FMCSA at its office in Washington, DC).

Filings must be transmitted online via the Internet at <https://www.fmcsa.dot.gov/registration>.

DEFINITIONS AS USED IN THIS ENDORSEMENT

ACCIDENT includes continuous or repeated exposure to conditions or which results in bodily injury, property damage, or environmental damage which the insured neither expected nor intended.

MOTOR VEHICLE means a land vehicle, machine, truck, tractor, trailer, or semitrailer propelled or drawn by mechanical power and used on a highway for transporting property, or any combination thereof.

BODILY INJURY means injury to the body, sickness, or disease to any person, including death resulting from any of these.

PROPERTY DAMAGE means damage to or loss of use of tangible property.

ENVIRONMENTAL RESTORATION means restitution for the loss, damage, or destruction of natural resources arising out of the accidental discharge, dispersal, release or escape into or upon the land, atmosphere, watercourse, or body of water, of any commodity transported by a motor carrier. This shall include the cost of removal and the cost of necessary measures taken to minimize or mitigate damage to human health, the natural environment, fish, shellfish and wildlife.

PUBLIC LIABILITY means liability for bodily injury, property damage, and environmental restoration.

The insurance policy to which this endorsement is attached provides automobile liability insurance and is amended to assure compliance by the insured, within the limits stated herein, as a motor carrier of property, with Sections 29 and 30 of the Motor Carrier Act of 1980 and the rules and regulations of the Federal Motor Carrier Safety Administration (FMCSA).

In consideration of the premium stated in the policy to which this endorsement is attached, the insurer (the company) agrees to pay, within the limits of liability described herein, any final judgment recovered against the insured for public liability resulting from negligence in the operation, maintenance or use of motor vehicles subject to the financial responsibility requirements of Sections 29 and 30 of the Motor Carrier Act of 1980 regardless of whether or not each motor vehicle is specifically described in the policy and whether or not such negligence occurs on any route or in any territory authorized to be served by the insured or elsewhere. Such insurance as is afforded, for public liability, does not apply to injury to or death of the insured's employees while engaged in the course of their employment, or property transported by the insured, designated as cargo. It is understood and agreed that no condition, provision, stipulation, or limitation contained in the policy, this endorsement, or any other endorsement thereon, or violation thereof, shall relieve the company from liability or from the payment of any final judgment, within the limits of liability herein described, irrespective of the financial condition, insolvency or bankruptcy of the insured. However, all terms, conditions, and limitations in the policy to which the endorsement is attached shall remain in full force and effect as binding between the insured and the company. The insured agrees to reimburse the company for any payment made by the company on account of any accident, claim, or suit involving a breach of the terms of the policy, and for any payment that the company would not have been obligated to make under the provisions of the policy except for the agreement contained in this endorsement.

It is further understood and agreed that, upon failure of the company to pay any final judgment recovered against the insured as provided herein, the judgment creditor may maintain an action in any court of competent jurisdiction against the company to compel such payment.

The limits of the company's liability for the amounts prescribed in this endorsement apply separately to each accident and any payment under the policy because of any one accident shall not operate to reduce the liability of the company for the payment of final judgments resulting from any other accident.

(continued on next page)

FORM MCS-90 (07/24)

Page 2 of 3

AGENT'S COPY

SCHEDULE OF LIMITS — PUBLIC LIABILITY

Type of Carriage	Commodity Transported	January 1, 1985
(1) For-hire (in interstate or foreign commerce, with a gross vehicle weight rating of 10,001 or more pounds).	Property (Non-hazardous)	\$ 750,000
(2) For-hire and Private (in interstate, foreign, or intrastate commerce, with a gross vehicle weight rating of 10,001 or more pounds).	Hazardous substances, as defined in <u>49 CFR 171.8</u> , transported in cargo tanks, portable tanks, or hopper-type vehicles with capacities in excess of 3,500 water gallons; or in bulk Division 1.1, 1.2, and 1.3 materials, Division 2.3, Hazard Zone A, or Division 6.1, Packing Group I, Hazard Zone A material; in bulk Division 2.1 or 2.2; or highway route controlled quantities of a Class 7 material, as defined in <u>49 CFR 173.403</u> .	\$5,000,000
(3) For-hire and Private (in interstate or foreign commerce, in any quantity; or in intrastate commerce, in bulk only; with a gross vehicle weight rating of 10,001 or more pounds).	Oil listed in <u>49 CFR 172.101</u> ; hazardous waste, hazardous materials, and hazardous substances defined in <u>49 CFR 171.8</u> and listed in <u>49 CFR 172.101</u> , but not mentioned in (2) above or (4) below.	\$1,000,000
(4) For-hire and Private (In interstate or foreign commerce, with a gross vehicle weight rating of less than 10,001 pounds).	Any quantity of Division 1.1, 1.2, or 1.3 material; any quantity of a Division 2.3, Hazard Zone A, or Division 6.1, Packing Group I, Hazard Zone A material; or highway route controlled quantities of a Class 7 material as defined in <u>49 CFR 173.403</u> .	\$5,000,000

000001S 2738276 397

* The schedule of limits shown does not provide coverage. The limits shown in the schedule are for information purposes only.

Driving in Work Zones Fact Sheet

HS20-005A (6-20)

The sounds of heavy construction equipment rumble across the more than 3,200 active work zones along 200,000-plus miles of Texas roadways. In 2019, more than 26,000 crashes, resulting in 690 serious injuries and 167 deaths, occurred in construction and maintenance work zones statewide.¹ Five construction workers, 138 motorists or passengers, and 24 pedestrians or bicyclists were among those killed. The leading causes of these accidents – speeding and driver inattention – are preventable.



Work Zone Safety is Everyone's Responsibility

More than 36,000 road construction employees are working on over 1,000 miles of projects underway on Texas roadways at any given time.² These work zones are hazardous environments for road workers, motorists, passengers, cyclists, and pedestrians alike. The dangerous combination of on-foot workers laboring beside large tractors, bulldozers, rollers, and other moving machinery is made more hazardous by the daily stream of traffic passing close by these work zones.

Work zone safety is everyone's responsibility. It takes:

- **engineers, contractors, and traffic control plan supervisors** to properly plan and design the work zones;
- **flaggers** to guide the public through the work zones;
- **drivers, cyclists, and pedestrians** to remain alert and pay attention while entering and driving through the work zones; and
- **local and state government, area police, and emergency responders** to help ensure that everyone goes home safe at the end of the day.

Engineers

Before any roadwork begins, engineers survey and design each work zone in advance. Surveys include the locations and clearances of utility lines and gas pipes. Engineers must call "dig safe" sources, such as the [Railroad Commission of Texas](#) at 811, to help identify these and other potential buried equipment or hazards.

Contractors or Project Managers

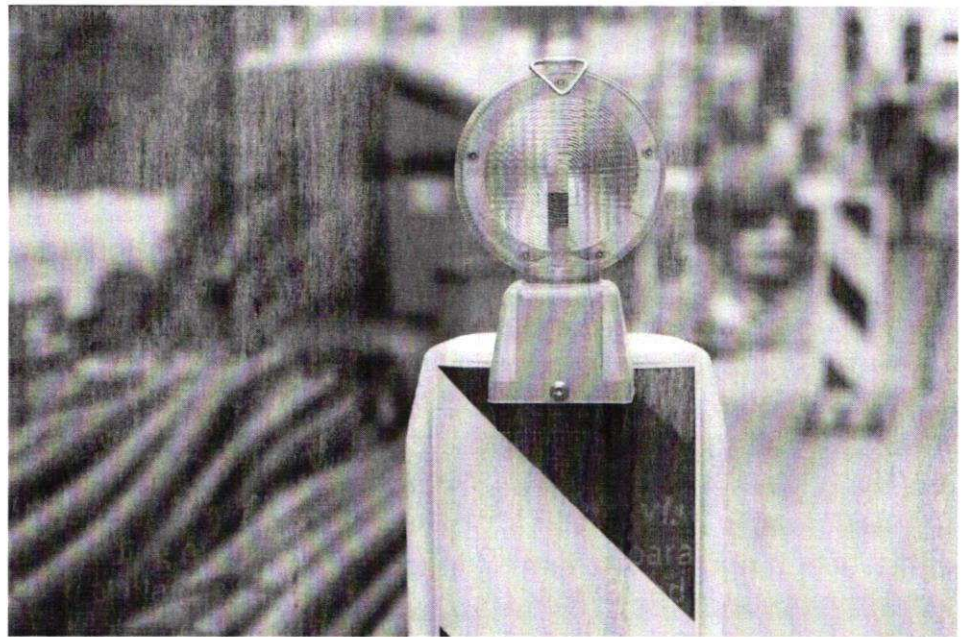
The contractors, or project managers, use the survey to oversee and allocate resources for the road construction project. They are responsible for ensuring all work zones comply with the Federal Highway Administration's (FHWA)

Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) and the Occupational Safety and Health Administration's (OSHA) rules and regulations on excavations and signs, signals, and barricades.

The MUTCD contains specifications for designing and correctly marking traffic control areas, as well as information on worker training, personal protective equipment, and lighting. OSHA offers standards that must be followed to minimize potential infrastructure hazards from outside and inside the work zone.

Traffic Control Plan Supervisors

If a traffic control zone is needed, an experienced traffic control plan (TCP) supervisor begins working with engineers during the planning phase. The TCP supervisor helps ensure a plan is in place so motorists can move safely through the work zone. They are responsible for monitoring the work zone throughout the duration of the project and making any corrections needed. They also determine the placement of control signals, message boards, and barriers to safely direct traffic. Concrete walls, water-filled barriers, crash cushions (attenuators), and sandbags are devices TCP supervisors may use to implement safety best practices.



Internal Traffic Control Plan Supervisors

Depending on the size of the project, a separate internal traffic control plan (ITCP) supervisor may be needed to help control the movement of workers, vehicles, and equipment within the work area. The ITCP supervisor works closely with the traffic controllers, project managers, and construction supervisors to make an effective plan to help keep workers safe. This plan must be modified as the work progresses and conditions in the work area change.

Flaggers

In some work situations, the TCP supervisor may place flaggers at the beginning or middle of the activity zone. When used, flaggers set up traffic cones and signs around work zones and direct traffic using hand signals and signs. They may also use radios to communicate with other flaggers positioned along the work zone to help coordinate two-way traffic on single-lane roads. Working with the construction crew, flaggers also alert workers to other traffic concerns that might impact work safety. During hazardous conditions, such as limited visibility or high-speed traffic, alternative traffic control methods should be used instead of flaggers.

Drivers, Cyclists, and Pedestrians

Any vehicle has the potential of becoming a deadly weapon. Add a distracted driver texting or answering the phone while driving and the chances of a fatal accident increase dramatically. When a distracted driver enters a work zone,

the likelihood of a fatality is even greater. Drivers who speed, cut through traffic, or become distracted cause fatal accidents on both sides of the work zone. Drivers must remain alert and pay attention, especially when driving through work zones. Drivers can also help save lives by obeying traffic laws and signs, wearing a seat belt, acting responsibly, and avoiding distractions.

Local and State Government, Area Police, and Emergency Responders

Everyone is responsible for work zone safety. Local and state government can help promote roadway safety by increasing public awareness about work zone hazards. By enforcing the traffic laws, police also provide work zone safety. Additionally, the

presence of patrol officers reduces the likelihood of vehicles speeding through work zones.³ Emergency responders must also be available to respond to and secure crash locations. Everyone has a job to do to keep work zones safe and maintain the roadway systems that help keep Texas communities connected and goods moving across the state.

Accident Prevention for Road Workers

Traffic Control Plan

Work zones are marked by cones, barrels, signs, signals, or lane changes. In these areas, **signs** must be clear, short, and spaced so that the needed information is understood in time for the driver to safely perform the needed maneuvers. Spacing is based on the speed limit where drivers first encounter the signs. These signs should state that the area is a construction or work zone and that fines double when workers are present. They should also indicate where the work zone begins and ends. Other signs may encourage drivers to slow down, use extra caution, or prepare to take a detour route.

If **warning lights** are in use, ensure light levels are adjusted in a timely manner. Bright daytime lighting can blind drivers in dark hours, and dimmer night levels are difficult to see in daylight hours.

Work Zone Accidents

Most fatal work zone crashes occur on roads with speed limits great than 50 mph. While speeding and driver inattention cause most work zone crashes, rear-end crashes are the most common type of collision.⁴ Other causes of work zone fatalities include:



- **construction trucks backing over pedestrian workers caught in the driver's blind spot;**



- **truck driver and equipment operator rollovers;**



- **equipment contacting overhead power lines or striking buried gas lines;**



- **workers falling from machinery or structures; and**



- **construction materials and objects falling on workers.**

The FHWA concludes that the most effective warning device is an occupied, **marked police vehicle** with its warning lights flashing. These should be used whenever possible for work zones on roads with high-speed traffic control zones. Marked police vehicles are also recommended in high-traffic urban areas where the work zone is close to traffic control lanes. Despite traffic signs, warning lights, and marked police vehicles, many drivers speed through construction zones. Multiple

methods must be used to tackle these dangers.

- **Close the road and reroute traffic, when possible.** Keep the length of the control zone appropriate to the size of the work zone so drivers do not speed up after passing through a long stretch with no workers.
- **Establish a detour route, when possible.** If an alternate detour route is available to allow motorists to avoid the work area, place advisory and directional signs before the detour's exist. Ensure the signage includes information and instruction on how to safely travel through the rest of the zone.
- **Use an advanced warning section.** Advanced warning sections may include warning signs, rumble strips, and radar transmitters to advise motorists of an approaching work zone.
- **Create a transition section.** Following an advanced warning section, the transition section directs traffic into safe lanes using cones and barricades.



The transition section must be designed so that motorists do not have to change speed or direction quickly.

- **Establish an activity section.** The activity section is adjacent to the actual work zone. It should include a buffer zone constructed of strong barriers to separate and protect workers from traffic. These barriers should be placed parallel to the work zone.
- **Use flaggers as needed.** If flaggers must be used, ensure they are trained in traffic control, as well as procedures to safely allow needed emergency vehicles into the work zone. Training should include techniques to help them gain and maintain eye contact with motorists and how to be courteous, yet firm, when communicating with drivers in words and gestures.

Always place flaggers in locations that are easily-visible to oncoming drivers. Make sure they have an escape route. Never place flaggers in shadows or close to construction workers.

All flaggers must wear bright warning vests, hardhats,

and white outer garments (except in snow or fog). Each flagger should be equipped with "Stop" or "Slow" paddles with built-in strobe warning lights. Even when flaggers are in visual contact with each other, ensure they have radios (with extra batteries) to back up their visual communication and to report emergencies.

- **Report Problems Immediately.** Encourage all employees to quickly report any problems they may witness in the traffic control zone.
- **Use pilot cars as needed.** In situations where work zones require long, single-lane traffic, a pair of specially-marked pilot cars can lead groups of traffic back and forth through the activity section.
- **Finish with a termination section.** The final section of the traffic control zone -- the termination section -- uses channeling devices and signage to return traffic to normal speed and lane configuration.

Test Work Zone Effectiveness

Once the traffic control zone is in use, the TCP supervisor verifies its effectiveness by walking or riding the zone at varying times based on weather conditions and traffic volume. Among other potential hazards, the TCP supervisor is looking for:

- evidence of near misses, such as skid marks or damaged signage and barriers;
- dirty reflective signs that must be cleaned to preserve their reflective intensity; and
- waste materials that may need removal.

Internal Traffic Control Plan

- In addition to the traffic control plan which focuses on moving motorists safely through a work zone, an internal traffic control plan (ITCP) protects the people in the work area itself. The ITCP focuses on keeping pedestrian workers from being struck by work vehicles and equipment in the work area and ensures all parties are informed about the locations of others. Objectives of an ITCP may include:



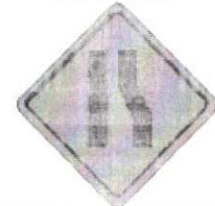
Road work is ahead. Be prepared for unusual driving conditions.



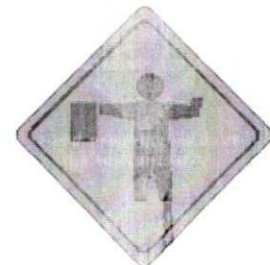
Traffic is traveling in both directions on a roadway that is normally one way. Be alert for oncoming traffic.



Traffic needs to follow this vehicle to get safely through the work zone.



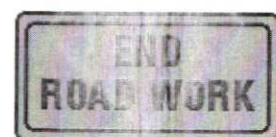
A lane is about to end, requiring the driver to merge into the adjacent lane.



A flagger is ahead. Be prepared to stop or follow instructions.



The driver will need to take an alternative route soon.



The driver has reached the end of the work zone. Resume normal, safe driving.

- designating areas where only pedestrians are allowed or only vehicles are allowed;
 - scheduling work activities so that pedestrians and vehicles are not present in the same area at the same time;
 - posting and enforcing safe speed limits in work activity areas;
 - posting other in-zone signs to alert workers to clearances below high voltage lines, blind corners, and hazardous drop-offs for machine operators; and
 - establishing an operations communications plan that includes a universally-accepted set of hand signals for all workers.
- approach vehicles, if on foot, only after making eye contact with the operator;
 - maintain visual contact with spotters and machine operators during operations;
 - instruct new spotters on any blind spots around machinery;
 - use proximity sensors or cameras at blind spots to warn equipment operators of pedestrians and smaller vehicles, when possible;
 - utilize radio communications between spotters and operators for extra safety;
 - ensure that panic stop bars are installed in appropriate locations and pedestrian workers know how to turn off the machine's motor in threatening situations;
 - watch for red flags or tall antennas (designed to increase visibility) on smaller construction vehicles, like pickup trucks;
 - ensure large machinery is marked with strobe lights for additional visibility;
 - ensure roll-over protection for equipment operators is always in place ;
 - ensure fall protection is provided any time workers are working more than six feet above a lower level;
 - ensure respiratory protection against silicosis is provided in areas where concrete cutting or mixing is taking place;
 - inspect each piece of machinery daily using checklists that should be set up prior to starting operations;
 - use proper lockout/tagout procedures when equipment maintenance must be performed in a work zone; and
 - place lighting for night work in a manner that will not blind operators or workers in the work zone.

Training

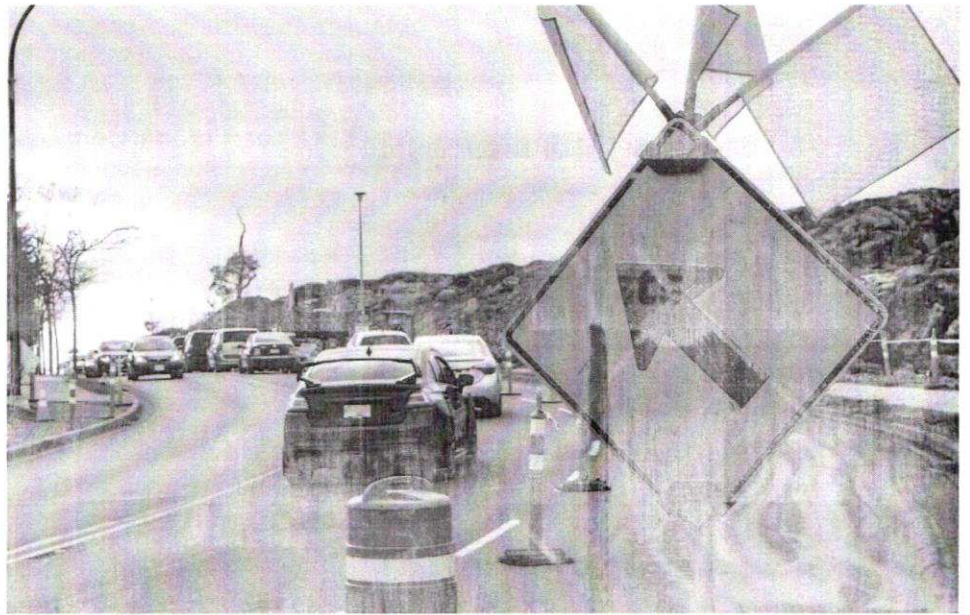
Mandatory safety training for all workers is required prior to their entry into the work zone. Workers must be trained to:

- always remain aware of their surroundings , in all types of weather, and in both daylight and nighttime hours;
- work with mixed pedestrian and machinery traffic to develop effective communications;

Accident Prevention for Motorists

Drivers and passengers are more likely than highway workers to be hurt or killed in work zone accidents. Whether traveling for work or pleasure, motorists should consider these tips when driving through a work zone:

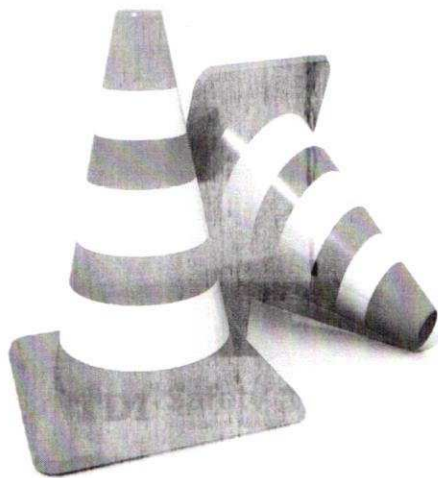
- **Plan ahead.** Plan trips in advance and drive an alternative route when possible.
- **Be patient.** Show courtesy and slow down for road workers. They may be working in conditions with low visibility, congestion, or inclement weather.
- **Avoid distractions.** Drivers need full focus on the roadway. Avoid distractions, such as cell phones, music, navigation systems, and other non-driving tasks. A texting driver is 23 times more likely to crash. Sending or reading a text can divert eyes from the road for about 4.6 seconds. At 55 mph that is like driving with closed eyes for the distance of a football field.⁵



- **Watch for warning signs.** Look for the orange and black signs that give warnings and information.
- **Obey the posted speed limit.** Road workers or equipment may be only feet away from motorists. Stay alert and drive safe.
- **Follow traffic control commands.** Respond promptly to flaggers and road workers.
- **Do not tailgate.** Create a space cushion, or distance, of four seconds or greater between other motorists. Watch for brake lights on vehicles ahead.
- **Avoid abrupt driving maneuvers.** Use caution on lane elevation changes, degraded road surfaces, and areas where the pavement ends to keep from losing control. Motorcyclists and bicyclists traveling through work zones should pay particular attention to these dangers.
- **Avoid lane changes.** Change lanes only where pavement markings or signs indicate it is allowed and only when traffic conditions permit.
- **Prepare for traffic pattern changes.** Be aware that traffic patterns can change daily in work zones.

- **Expect the unexpected.**
Work zones are constantly changing. Heavy construction equipment and large earthmovers are often near the roadway and may enter a driver's lane with little warning.
- **Merge early.** Drivers should merge into the proper lane well before reaching a lane closure.
- **Use turn signals and headlights.**
When traveling in a work zone, always use turn signals and the vehicle's headlights to become more visible to workers and other drivers.

Everyone plays a part in work zone safety. It is each person's responsibility to help ensure drivers and road workers reach their most important destination. Home!



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Safety Violations Hotline

1-800-452-9595

safetyhotline@tdi.texas.gov

The Texas Department of Insurance,
Division of Workers' Compensation (DWC)
E-mail resourcecenter@tdi.texas.gov

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HM Compliance Overview

What is the HM Compliance BASIC?

The Hazardous Materials (HM) Compliance Behavior Analysis and Safety Improvement Category (BASIC) is one of seven categories that the (FMCSA) uses to determine how a motor carrier ranks relative to other carriers with a similar number of safety events (i.e., inspections, violations, or crashes). The HM Compliance BASIC specifically addresses the requirements within the Federal Motor Carrier Safety Regulations (FMCSRs), specifically 49 CFR Part 397 and Hazardous Materials Regulations (HMRs) 49 CFR Parts 171, 172, 173, 177, 178, 179, and 180, to safely transport HM on commercial motor vehicles (CMVs). Some example roadside safety violations that may cause a motor carrier to rank poorly

in this BASIC include failing to mark, label, or placard in accordance with the regulations and not properly securing a package containing HM. This BASIC also includes violations pertaining to cargo tank specification testing, loading/unloading, attendance, and leakage.

How do motor carriers know where they stand?

FMCSA's Safety Measurement System (SMS) determines an overall BASIC status for each motor carrier based upon roadside inspection results that are reflected as a percentile rank and/or prior investigation violations. This information can be seen by logging into the **SMS Website** (<https://ai.fmcsa.dot.gov/sms/>). Once logged into the SMS Website, motor carriers with safety compliance problems in the HM Compliance BASIC will see a warning symbol in that BASIC. You can also view the records of your company's roadside inspections and request a review of those records they think are inaccurate through DataQs. Violations of the regulations related to the HM Compliance BASIC raise the percentile rank, which indicates lower safety compliance and may lead to warning letters or investigations.

What documents associated with this BASIC should motor carriers keep?

If an investigation is conducted, Safety Investigators (SIs) may request from motor carriers these types of documents: HM incident reports, HM shipping papers, Hazardous Waste manifests, Cargo Tank Manufacturer's Certificates, and evidence of HM training. Motor carriers should keep these documents as required by the FMCSRs and HMRs, and know that SIs may use them to assess the nature and severity of safety problems.

How can motor carriers and their drivers improve safety performance in the HM Compliance BASIC ?

Drivers should know how to comply with the regulations related to the HM Compliance BASIC, and how to safely transport HM to ensure their safety and the safety of others. The HM Compliance BASIC is based on the regulations that require motor carriers and drivers to properly transport their HM as outlined in 49 CFR 397 Transportation of Hazardous Materials and the HMRs.

Motor carriers should educate their drivers about how to safely and lawfully transport HM, and make sure drivers understand that any HM problems must be addressed proactively to prevent unsafe situations. This education should include how to properly package, mark, label, placard, and load HM as required in the FMCSRs and HMRs. Motor carriers should answer drivers' questions and direct them to the information they need, including FMCSA's websites.

Motor carriers should know that violations related to the HM Compliance BASIC and while hauling placardable quantities of HM adversely affect SMS results for 24 months; time and/or inspections with no HM violations can improve motor carriers' BASIC percentile ranks. Also, they should check out the "What can a motor carrier do to improve?" section of the SMS Information Center for answers to commonly asked questions about safety performance.



This is an official U.S. government publication, produced, and disseminated by the Federal Motor Carrier Safety Administration.

CSA is FMCSA's enforcement and compliance program to improve large truck and bus safety and ultimately reduce CMV-related crashes, injuries, and fatalities. For more information about CSA, visit <http://csa.fmcsa.dot.gov>



Dump Truck Tip-Over Prevention Fact Sheet

HS05-041C (11-20)

Dump trucks are used in a variety of different industries today to haul material and dump it. Like other large trucks, these vehicles are heavy, difficult to steer, and can take a long time to stop. While they vary greatly in design, many of the operation hazards remain the same. Dump trucks – especially long semi-trailer dump rigs and end-dump truck bodies -- are prone to tipping. Their high center of gravity, the cargo's weight, and the often loose, shifting loads of sand, gravel, or debris make dump trucks unstable and prone to tipping.

Dump Truck Injuries

Over the past decade, serious accidents involving dump trucks continue to edge up by about 3% per year.¹ While it is hard to pinpoint the number of injuries directly related to dump truck tip-overs, there are many news stories of workers on the ground or a member of the public suffering fatal injuries from a dump truck tip-over.

Dump truck accidents often result in serious injuries or death for truck operators and people around the truck. In 2018, dump truck accidents resulted in 5,829 serious injuries and 383 deaths in



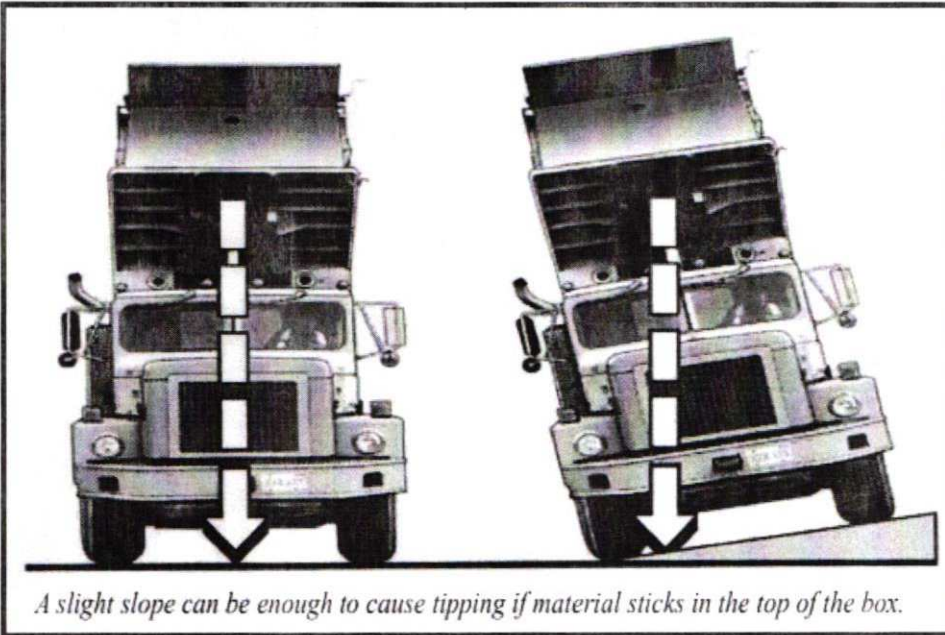
the U.S.² Annually, about 41% of dump truck-related deaths involve workers on foot. Approximately 8% of those killed were maintaining dump trucks, and nearly 3% of the deaths resulted from a worker caught between the truck frame and a falling dump truck bed.³

Causes of Dump Truck Tip-Overs

Many factors contribute to dump truck tip-overs depending on the worksite and the type of truck used. However, the main hazard is related to the stability of the end-dump unit when the box is in the raised position. When the center of gravity of the box and load is not between the unit's frame rails, there is a risk of tip-over. (See diagram on page 2.)

Some common factors that can decrease stability and cause tip-overs include:

- **Operating on uneven ground or a slope.** One of the most common causes for a dump truck to tip is operating on an uneven surface or a slope when dumping. Even a slight slope alters the truck's center of gravity and increases the chance of a tip-over as the



weight of the load shifts during dumping. If the bed overturns, the cab often tips over as well, unless the truck has an articulating dump bed.

- Operating on soft surfaces.**
Construction site dump truck operators may drive onto an area that appears even and solid. However, unless the surface is tightly compacted, the ground under the truck can shift, causing the wheels to settle unevenly. As the center of gravity is altered, an overturn may occur as the weight of the load shifts.
- Materials are loaded unevenly.**
When a large amount of material is loaded in the upper portion of a raised box, the truck becomes off-balanced and unstable. Always load material evenly in the bed of the truck and pay attention to how the load flows from the bed while dumping.
- The load does not flow during dumping.**
It takes practice to learn how different materials flow while dumping or spreading. However, sometimes material does not move out of the top portion of the box or does not flow out of one side of the top portion as expected. Also, the end gate may fail to open, lifting the dump body in the air. The uneven distribution of the load can decrease the truck's stability and result in a tip-over. Also, cold weather may cause materials to freeze and stick to the box when dumping. Do not leave loads in dump boxes overnight during the winter.

Types of Dump Trucks

Standard Dump Truck

A standard dump truck is a truck chassis with a dump body mounted to the frame. The bed is raised by a hydraulic ram and lever between the frame rails. The back of the bed is hinged to allow the tailgate to swing up or down.



Photo: Ky MacPherson; Permission: released to Wikimedia Commons on 6 October 2005 under GFDL, CC BY-SA 3.0 <<http://creativecommons.org/licenses/by-sa/3.0/>>, via Wikimedia Commons.

Semi-Trailer End-Dump Truck

In a semi-trailer end-dump truck, the trailer itself contains the hydraulic hoist. A typical semi-trailer end-dump truck has a tractor pulling a 2-axle trailer with dual tires. It carries a large payload but is unstable when raised in the dumping position.



Photo: CC BY 3.0 DE <<https://creativecommons.org/licenses/by/3.0/de/deed.en>>, via Wikimedia Commons.

Transfer Dump Truck with Pups

A transfer dump truck is a standard dump truck pulling a separate trailer with a movable cargo container. The pup trailer(s) has a hydraulic ram and is capable of self-unloading.



Photo: Mark Holloway from Beatty, Nevada, USA, CC BY 2.0 <<https://creativecommons.org/licenses/by/2.0/>>, via Wikimedia Commons

Types of Dump Trucks

Super Dump Truck

A super dump truck is a straight dump truck equipped with a trailing axle. When the truck is empty or ready to offload, the back, liftable, load-bearing axle toggles up onto the vehicle's rear and off of the road surface.



Photo: Reprinted by permission, Strong Industries.

Semi-Trailer Bottom Dump Truck

A semi-trailer bottom dump truck, also known as a belly dump, is a tractor-trailer with a clamshell-type dump gate in the trailer's belly.



Photo: https://commons.wikimedia.org/wiki/File:Belly_dump_2005-12-15.km.jpg#/media/File:Belly_dump_2005-12-15.km.jpg, via Wikimedia Commons.

Double and Triple Trailer Bottom Dump Truck

Double and triple bottom dump trucks consist of a tractor pulling one single-axle semi-trailer and an additional full trailer (or two full trailers in the case of triples). These dump trucks allow the driver to lay material in windrows without leaving the cab or stopping the truck.

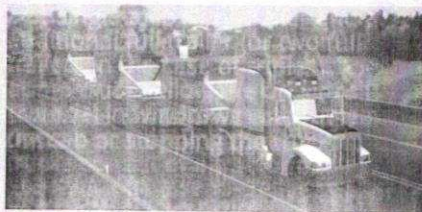


Photo: Reprinted with permission from American Truck Simulator, <https://atsmod.net/american-truck-simulator-mods/ats-trailers/ownable-scs-bottom-dump-trailer-v1-0-1-36-x/>.

- **Poor maintenance or mechanical failure.**

From defective lift mechanisms to uneven tire pressure in the rear wheels, any maintenance or mechanical issue that decreases the dump trunk's stability can result in a tip-over. Keep rear suspension systems, lifting cylinders and pins, and tailgates maintained and in good working order. When a tailgate does not open or unlatch, the load shifts to the back of the bed, potentially causing the truck's front to lift and overturn.

- **The force of high winds.** The longer the trailer, the more surface area is exposed to high winds. A cross-wind pressure on the trailer, especially one with a long box as in end-dump trucks and semi-trailers, creates the potential for a tipping incident.

Dump Truck Tip-Over Prevention

One of the most effective ways to prevent tip-overs is by controlling the following risk factors:

- **Use the right type of dump truck for the job.**

Vehicle selection is not always an option for the contractor, and material suppliers or haulers may not always own the right equipment for the job site. However, when possible, use dump trucks with the most stability for the job. For example, use belly-dump semi-trailers instead of end-dump semi-trailers for spreading aggregate for road construction. Use straight trucks or pup trailers instead of semi-trailers to haul to rough graded or fill areas where surfaces are uneven or loosely compacted. Use straight trucks or pup trailers for highway haulage to dump areas. However, when haulage and dumping are all on-site, off-highway vehicles are a better choice.

- **Stay within regulated weight limits.**

Loading the box from front-to-back must meet allowable gross weight and axle weight limitations set by the [Texas Department of Motor Vehicles](#).

- **Lighten the load when hauling poor flowing materials.**

If working with poorly flowing materials, lighten the load in the top end of the box, use a smaller load instead of a full load, and use box liners if possible.

- **Dump on level ground.**

Check to see that the vehicle is on an even surface before dumping. When spreading material by dumping from a moving truck, ensure the entire length of travel is level. If dumping on a slope is unavoidable, dump with the slope, not against it.

- **Avoid soft, uneven surfaces.**

When operating off-road in loosely compacted fill or in soft material, choose a spot to dump that will not shift with the load's weight. Never dump close to the shoulders of roads or at the edge of newly placed material.

- **Unlock the tailgate before dumping.**

Operators should ensure that the tailgate is unlocked and the vehicle is on a reasonably level surface before dumping.

- **Never dump near people or other vehicles.**

Avoid dumping when trucks are parked side-by-side or when ground personnel are in the dump area. Many dump truck-related fatalities occur to those who were near a bed that tipped. When a dump truck unit tips over, often the operator in the adjoining vehicle is the one who is injured. Warn dozer operators, surveyors, spotters, and other workers not to congregate in areas where dumping is underway.

- **Create a regular maintenance and inspection program.**

Preventive maintenance and regular inspections play an important role in eliminating vehicle tip-overs.

- **Check tire pressure.**

Ensure that tire pressure is checked daily and is equal on all sides of the truck.

- **Examine and lubricate pins and bushings regularly.**

- **Inspect suspension systems.**

Maintain and inspect suspension systems under load to ensure they work properly and provide even suspension. Replace weak suspension systems immediately.

- **Inspect hoist cylinders.**

Check hoist cylinders regularly, and when needed,

Types of Dump Trucks

Side Dump Truck

A side dump truck consists of a tractor-trailer with hydraulic rams that tilt the dump body onto its side. It allows the material to spill either to the left or right side of the trailer.

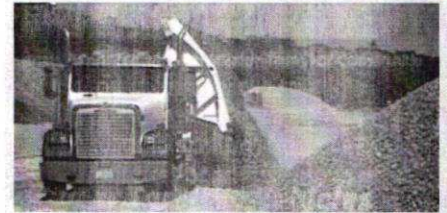


Photo: Reprinted with permission from For Construction Pros.

Winter Services Vehicles

Many winter service vehicles are based on dump trucks to allow ballast placement to weigh the truck down or hold sodium or calcium chloride salts for spreading on snow and ice-covered surfaces.



Photo: Ben Franske, CC BY-SA 3.0 <<https://creativecommons.org/licenses/by-sa/3.0/>>, via Wikimedia Commons.

Roll-Off Trucks

A roll-off truck has a hoist and subframe, but it carries a removable container. The container is loaded on the ground, then pulled onto the truck's back with a winch and cable.

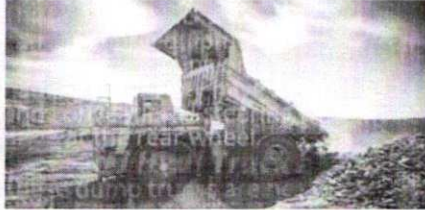


Photo: Boomer77, CC BY-SA 3.0 <<https://creativecommons.org/licenses/by-sa/3.0/>>, via Wikimedia Commons.

Types of Dump Trucks

Off-Road Haul Trucks

These dump trucks are heavy construction equipment strictly used off-road for mining and heavy dirt-hauling jobs. They have a rigid frame and conventional steering with the drive at the rear wheel.



Off-Road Articulated Hauler

An articulated hauler is an all-wheel-drive, off-road dump truck. It has a hinge between the cab and the dump box but is distinct from a semi-trailer truck in that the power unit is a permanent fixture, not a separable vehicle.

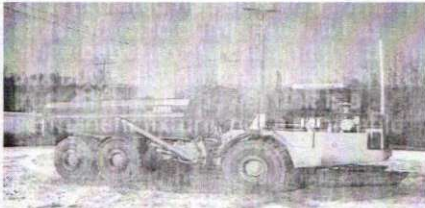


Photo: Harry Bush, Public Domain, via Wikimedia Commons, https://commons.wikimedia.org/wiki/File:Caterpillar_dump_truck.jpg.

replace them with cylinders of the same size and operating pressure. Never replace worn cylinders with smaller cylinders or with cylinders rated at lower operating pressure.

- **Leave repaired boxes unobstructed.**

When box repairs are needed, leave the bottom and sides clear and unobstructed. Rough patchwork repairs near the top of the box can catch and hold sticky material.

- **Report damaged components.**

Inform a supervisor of all damaged components immediately. Fix all equipment and components before using.

- **Enforce safety procedures.**

Establish safety procedures and policies. Create awareness training based on manufacturer's recommendations.

Recognizing the risks associated with tipping hazards is key to prevention. For more information on dump truck safety and tip-over prevention, contact a Texas Department of Insurance, Division of Workers' Compensation-Workplace Safety Training Specialist at 800-252-7031, Option 2; www.txsafetyatwork.com; or safetytraining@tdi.texas.gov.

References

¹Bureau of Labor Statistics Census of Fatal Occupational Injuries Research File and Case of Demographic Incidence Rates. Website. <https://data.bls.gov/gqt/InitialPage>. Accessed December 2, 2002.

²Large Truck and Bus Crash Facts, 2018. Fatal Crashes: National Highway Traffic Safety Administration (NHTSA), Fatality Analysis Reporting System (FARS). Injury and Towaway Crashes: Federal Motor Carrier Safety Administration, Motor Carrier Management Information System (MCMIS), data snapshot as of September 27, 2019. Website. https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/2020-09/LTBCF%202018-v5_FINAL-09-15-2020.pdf. Accessed December 2, 2002.

³McCann M, Cheng MT. Dump truck-related deaths in construction, 1992-2007. Am J Ind Med. 2012 May;55(5):450-7. doi: 10.1002/ajim.21028. Epub 2011 Nov 23. PMID: 22113947. Website. <https://pubmed.ncbi.nlm.nih.gov/22113947/>. Accessed December 2, 2020.



Safety Violations Hotline

1-800-452-9595

safetyhotline@tdi.texas.gov

The Texas Department of Insurance,
Division of Workers' Compensation (DWC)
E-mail **resourcecenter@tdi.texas.gov**
or call 1-800-687-7080 for more information.

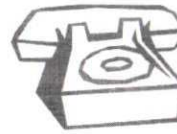
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Most transportation incidents involving hazardous materials are the result of human error.

Training is the best means of preventing hazardous materials incidents.

Why Measure Up?

1. Heightens Employee Safety
2. Reduces Incidents and Accidents
3. Increases Employee Skills
4. Precludes Penalties



Hazardous Materials

INFO-LINE 1-800-HMR49-22

Call our information line to obtain hazardous materials transportation information, copies of rulemakings and training materials. Specialists are on duty Monday through Friday from 9 a.m. to 4 p.m. Eastern time; however, you may call any time, 24 hours a day, seven days a week, and leave a message. We will return your call before the end of the next business day. You may use this number to report alleged violations of the Hazardous Materials Regulations.

Training Sources

Videos, CD-ROMs, training materials, fact sheets, newsletters, and other safety-related information are available from U.S. DOT.

View them or order on-line on the web at

https://hazmatonline.phmsa.dot.gov/services/pub_default.aspx

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Hazardous Materials Initiatives and Training
1200 New Jersey Avenue, SE, PHH-50
Washington, DC 20590-0001
202-366-2301 FAX: 202-366-7342

GOT A
HAZMAT
QUESTION?

<http://hazmat.dot.gov>

INFO-LINE
1-800-467-4922

Measuring Up...It's the Law!

The Federal hazardous materials transportation law (49 U.S.C. 5101 **et seq.**) is the basic statute pertaining to the transportation of hazardous materials (hazmat) in the United States. This law requires the training of ALL hazmat employees. The purposes are to increase a hazmat employee's safety awareness and to be an essential element in reducing hazmat incidents. The Hazardous Materials Regulations (HMR) include training requirements in several sections of Title 49 Code of Federal Regulations (CFR) as follows:

GENERAL		§ 173.1
SPECIFIC		§ 172.704
MODAL	Air	§ 175.20
	Vessel	§ 176.13
	Highway	§§ 177.800, 177.816

Each hazmat employer must:

- train and test,
- certify; and
- develop and retain records of current training (inclusive of preceding three years) for each hazmat employee (during the period of employment and 90 days thereafter).

Hazmat training must include:

- general awareness/familiarization;
- function-specific;
- safety;
- security awareness;
- In-depth security training, if a security plan is required; and
- driver training (for each hazmat employee who will operate a motor vehicle).

Frequency of training

Initial training - a new employee, or an employee who changes job functions, may perform hazmat job functions before completing training, provided:

- the employee does so **under the direct supervision of a properly trained and knowledgeable hazmat employee**; and
- the hazmat training is completed within 90 days of employment or change in job function.

Recurrent training is required at least once every three years. The three-year period begins on the actual date of training.

Relevant training received from a previous employer or source may be used to satisfy the requirements provided a current

DEFINITIONS

TRAINING means a systematic program (consistent approach, testing, and documentation) that ensures that a hazmat employee has knowledge of hazardous materials and the HMR, and can perform assigned hazmat functions properly. See § 172.700 through § 172.704.

HAZMAT EMPLOYER means a person who uses one or more employees in connection with:

- transporting hazmat in commerce;
- causing hazmat to be transported or shipped in commerce; or
- representing, marking, certifying, selling, offering, reconditioning, testing, repairing, or modifying packagings as qualified for use in the transportation of hazmat.

The term "hazmat employer" also includes any department, agency, or instrumentality of the United States, a State, a political subdivision of a State, or an Indian tribe engaged in offering or transporting hazmat in commerce. This term includes an owner-operator of a motor vehicle which transports hazardous materials in commerce.

HAZMAT EMPLOYEE means a person who is employed by a hazmat employer and who **directly** affects hazmat transportation safety including:

- an owner-operator of a motor vehicle which transports hazmat;
- a person (including a self-employed person) who:
 - loads, unloads, or handles hazmat;
 - tests, reconditions, repairs, modifies, marks, or otherwise represents packagings as qualified for use in the transportation of hazmat;
 - prepares hazmat for transportation;
 - is responsible for safety of transporting hazmat; or
 - operates a vehicle used to transport hazmat.

FREQUENTLY ASKED QUESTIONS

May hazmat employers/employees train and test themselves (an owner-operator)?

Yes. Self-training is acceptable provided that all training requirements of § 172.704 are met.

Who certifies that an instructor is qualified to train, test, and certify in accordance with § 172.704?

Except for certain FAA required 14 CFR training, the U.S. DOT does not review or certify training programs for pre-approval purposes. The employer must determine a trainer's qualifications based on the employer's need.

Does the trainer who teaches and tests the hazmat employee

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