

SAFE SHIPPING

ISRI/AF&PA SHIPPING GUIDE



INTRODUCTION TO SHIPPING PAPER BALES

Shipping is one of the most important areas where you, as a supplier, can help the mill.

The safety of the load is our number-one priority.
This document covers the following aspects of shipping to a paper mill.

- Safe Van Truck Loading.....3
- Safe Reliable Method for Opening Van Trailer Doors.....4
- Acceptable Load Patterns—Inside View6
- Acceptable Load Patterns—Rear View8
- Process for Loading and Unloading Flatbeds9
- Sample Bale Tag and Placement.....10
- Railcar Door Safety and Loading.....12
- Safe Loading Patterns—Rail.....13
- Doorway Protection for Baled Paper—Rail17
- Rejection Criteria18
- Vehicle Inspection Report19
- Trailer Inspection Checklist.....20
- Checklist for Trailer Pre-Load Safety Inspection21

Disclaimer: You are responsible for safe loading and unloading practices. This material does not include all practices for all situations.

VAN TRUCK LOADING

Safety is our #1 priority. To ensure the safety of our employees and contracted drivers, the following requirements MUST be followed.

Load it ***SAFELY*** or DO NOT SEND!

Before loading bales

- Inspect the trailer before loading to make sure the trailer is safe and clean
- Make sure bales are of good integrity and have adequate wires
- Know the safe, acceptable load patterns

What to know while loading bales

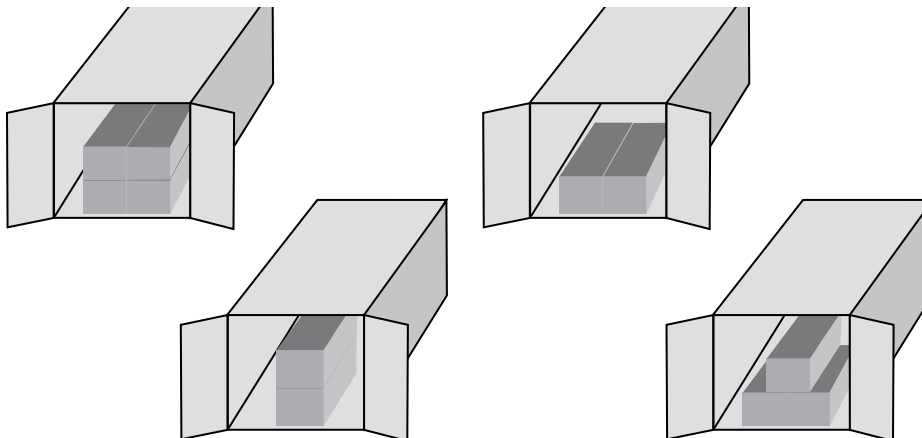
- **ALWAYS** turn the last row of bales lengthwise to prevent bales from falling/shifting against the door during transit. The last row of bales must be no more than 2 high. **THERE WILL BE NO EXCEPTIONS TO THIS RULE!**

SEE DIAGRAM FOR EXAMPLES.

- **Never** put a stack of 3 bales next to a stack of 1 bale.
- Stack bales squarely for easy off-loading and storage.
- **Do not** place small bales on the bottom with large bales on top.
- **Do not** place high-density bales on top of low-density bales.
- Bales often expand inside vans — leave room to unload safely. Do not stuff vans. A bale clamp, not straight forks, is typically used to unload the bales.

Loads can be rejected for the following reasons:

- Acceptable load patterns are not followed
- Bottom bales break and let stacks fall during unloading
- Quality is poor or dangerous materials are present.



SAFE RELIABLE METHOD FOR OPENING VAN TRAILER DOORS

Safe Reliable Steps in Doing a Task

Equipment	Task
Trucking	Opening Van Trailer Doors

SAFETY NOTES: NEVER OPEN BOTH DOORS AT THE SAME TIME—ask for assistance if doors cannot be opened one at a time. Always stand at the outside edge of the doors as you swing the doors around to secure.

Steps in Doing Task

1. Look at trailer doors to make sure both doors are properly latched and that they aren't bulging from bales leaning against the doors. If doors aren't properly latched or if doors are bulging, contact a customer employee for assistance.
2. While standing behind the left door, release the latch(es) on the right door.
3. Standing behind the left door, carefully open the right door. Check to see if cargo is leaning toward, or against, either door. Is cargo stable?
4. If "NO," contact a customer employee.
5. If "YES," secure the right door, look inside the trailer to be sure nothing is leaning against the left door. If load is stable, unlatch and open the left door, and secure. If there is concern for anything falling from the trailer, contact a customer employee for assistance.

Potential Hazards

An employee can be struck by, or crushed by, falling material when doors are opened. An employee can be struck by a swinging door due to material pushing on the doors.

Personal Protective Equipment (PPE) Needed

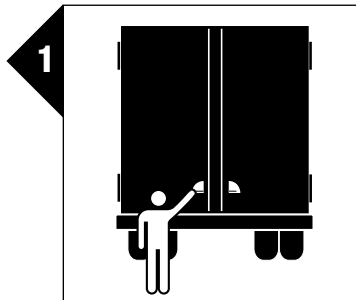
Gloves

NOTE: All drivers are required to use this Safe Reliable Method for opening van trailer doors.

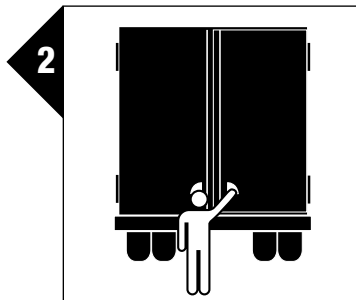
SAFE RELIABLE METHOD FOR OPENING TRAILER DOORS

Método seguro y confiable de abrir las puertas de los trailers

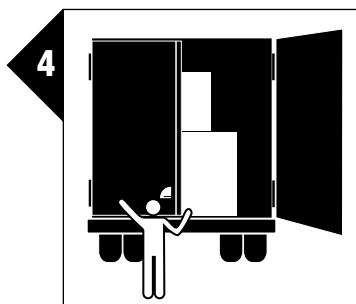
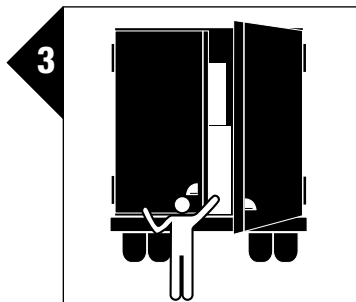
1. Never open both doors at the same time. Make sure trailer doors are properly latched before opening. If they are not latched properly, or if doors appear to be bulging, ask a customer employee for help.



2. While standing behind the left door, release the latch(es) on the right door.
3. Standing behind the left door, carefully open the right door. Check to see if cargo is stable.
4. If "No," contact a customer employee.



If "Yes," secure the right door and look inside the trailer to be sure nothing is leaning against the left door. If load is stable, unlatch and open left door. If there is concern about anything falling, contact a customer employee for assistance.



1. Nunca abra ambas puertas al mismo tiempo. Asegúrese que las puertas del trailer están con el pestillo correctamente pasado antes de abrirlas. Si el pestillo no está bien pasado, o si las puertas dan la apariencia de setar abultadas, pídale ayuda a un empleado de customer.

2. Mientras que este parado detrás de la puerta izquierda corra el pestillo o los pestillos de la puerta derecha.
3. Aun detrás de la puerta izquierda, con cuidado abra la puerta derecha. Revise si la carga es estable.
4. Si ve que la carga "No" es estable contacte a un empleado de customer.

Si la carga "Si" es estable asegure la puerta derecha y vea adentro del trailer para asegurarse que nada esta recostado sobre la puerta izquierda. Si la carga es estable, corra el pestillo y abra la puerta izquierda. Si tiene alguna preocupación respecto a que alog se puede caer, póngase en contacto con un empleado de customer.

NOTE: Never open both doors at the same time. Always stand at the outside edge of the doors as you swing them around to secure.

Potential Hazards: Employees can be crushed by falling material when doors are opened. Employees can be struck by swinging doors due to material pushing on the doors.

Protective Equipment Needed: Gloves.

NOTA: Nunca abra ambas puertas al mismo tiempo. Párese siempre afuera del costado exterior de las puertas mientras que las gira para asegurarlas.

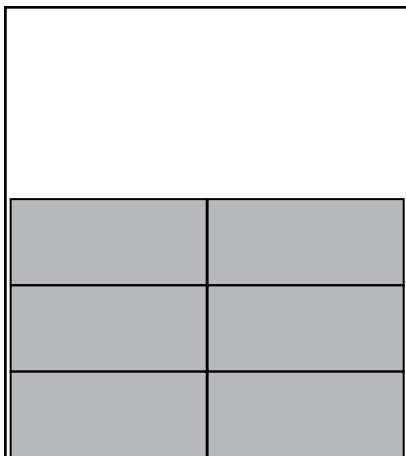
Reisgos Potenciales: Los empleados pueden ser aplastados por las cargas al abrir las puertas. Los empleados pueden ser golpeados por las puertas debido al material que esta recostado en ellas.

Equipo de Protección Necesitado: Guantes.

ACCEPTABLE LOAD PATTERNS—INSIDE VIEW

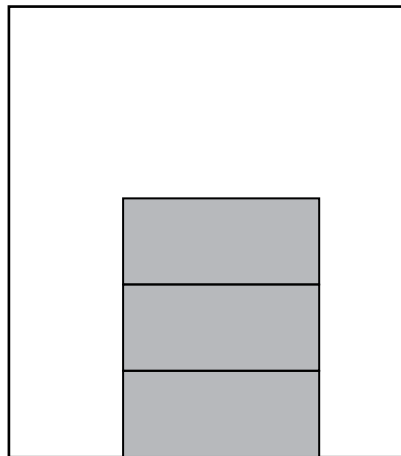
Note: Does not apply to last row of bales next to trailer door!

#1 – Yes



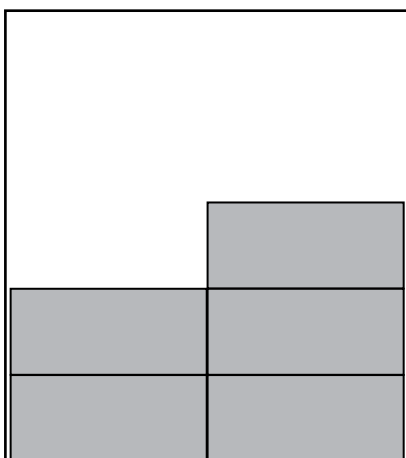
Load bales squarely on top of bottom bales. Leave 6" clearance from sides and top of trailer.

#2 – Yes



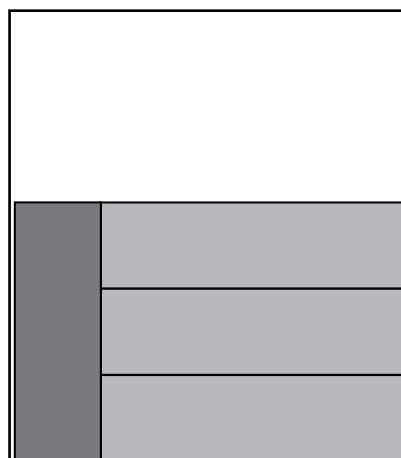
Load bales squarely on top of bottom bales. Maximum length is 72".

#3 – Yes



Load top bale squarely on top of bottom bales. For better weight distribution, alternate top bale placement in each row.

#4 – Yes

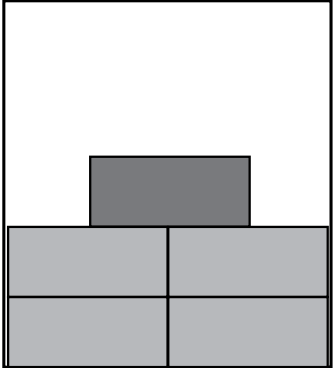


**1 Vertical bale on side (must leave at least 6" clearance on each side of load).
Acceptable—not preferred**

*Load trailer to maximum capacity. Leave 6" clearance from sides and top of trailer.
Trailers are typically unloaded with bale clamps, not straight forks.*

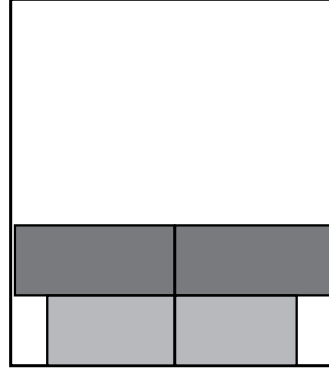
UNACCEPTABLE LOAD PATTERNS—INSIDE VIEW

NO



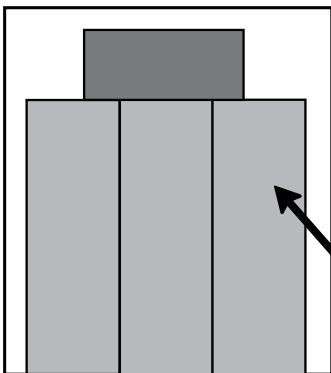
Do not stack bales partially on top of two bottom bales.

NO



Do not stack large bales on top of smaller bales.

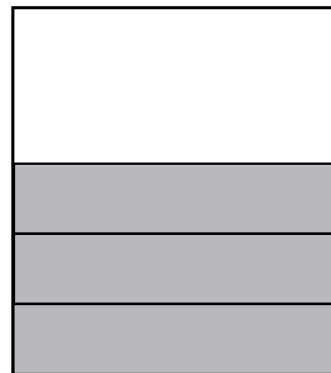
NO



Do not stack bales partially on top of bottom bales.

Do not stack bales vertically.

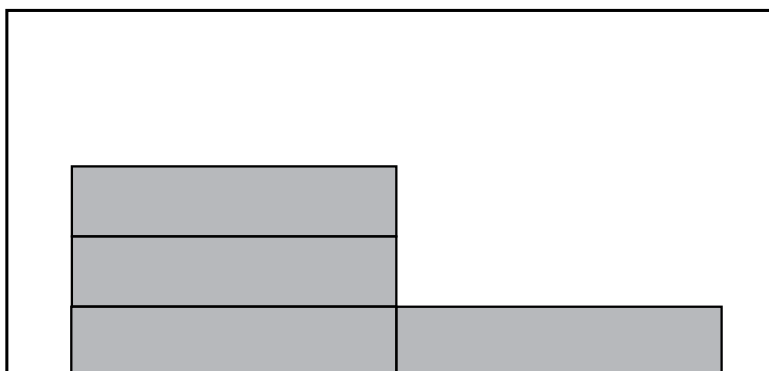
NO



Bales too wide. Leave a minimum clearance of 6 inches on each side of load. Maximum length of bales is 72".

NO

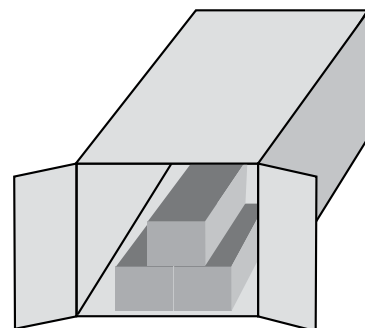
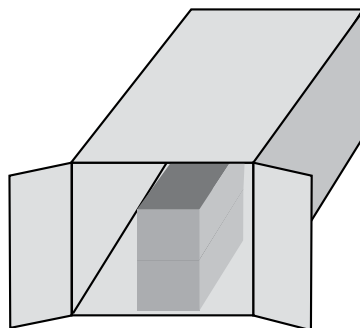
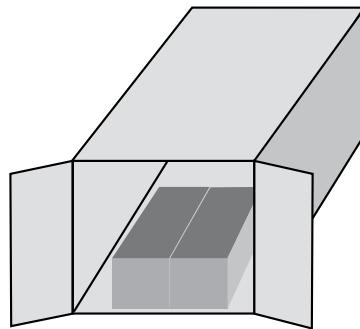
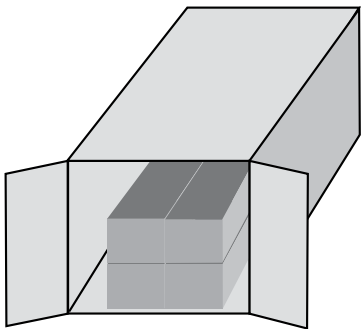
SIDE VIEW



Never place a stack of 3 next to a stack of 1.

ACCEPTABLE LOAD PATTERNS—REAR VIEW

Bales *MUST* be no more than 2 high and turned lengthwise with the length of the trailer.



PROCESS FOR LOADING AND UNLOADING FLATBEDS

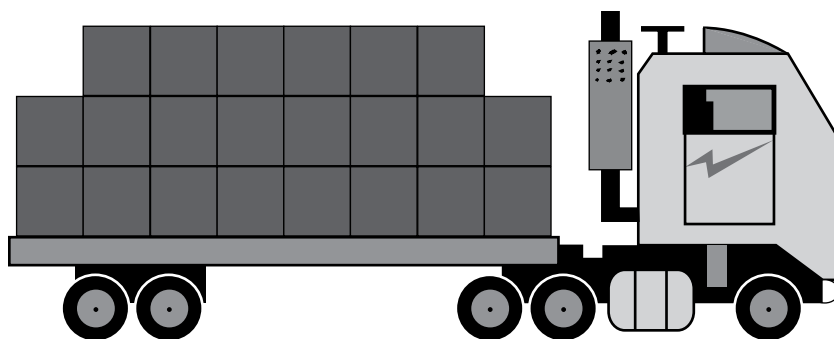
Safety First!

Check to make certain that the tractor or jack stands are underneath the trailer.
Make sure trailer is chocked. All bales should be free of snow and ice.

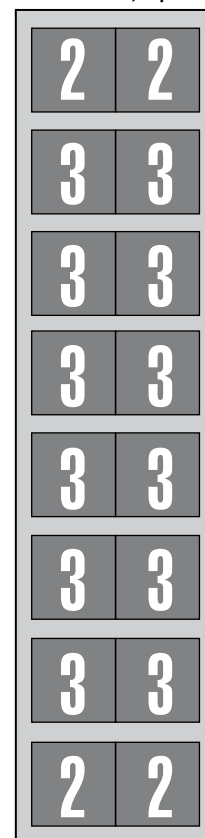
Keep drivers clear at all times while loading or unloading!

Loading procedures

48' flatbeds – Stack bales side by side for eight stacks on each side, the first and last row two bales high, the balance three bales high. Load only four stacks per side to avoid causing stress on the kingpin of the trailer and the fifth wheel of the tractor. Do not stagger the top row of bales.



48 ft. flatbed, top view



Unloading procedures

Make sure drivers and employees are clear of the unloading area.

Flatbeds – Use reverse order from loading. Take off only three stacks from each side to keep weight down. Don't pull some bales from the back and then some from the front of the trailer.

Keep load as stable as possible while unloading!

SAMPLE BALE TAG

This tag, or one like it, can be used to identify your bales to the mill.
All bales should be tagged as shown below.

This quality product was safely produced
to meet customer specifications.

Supplier ID:_____

Grade:_____

PROCESS FOR CORRECT BALE TAG PLACEMENT



RAILCAR DOOR SAFETY

Before Opening Any Railcar Door

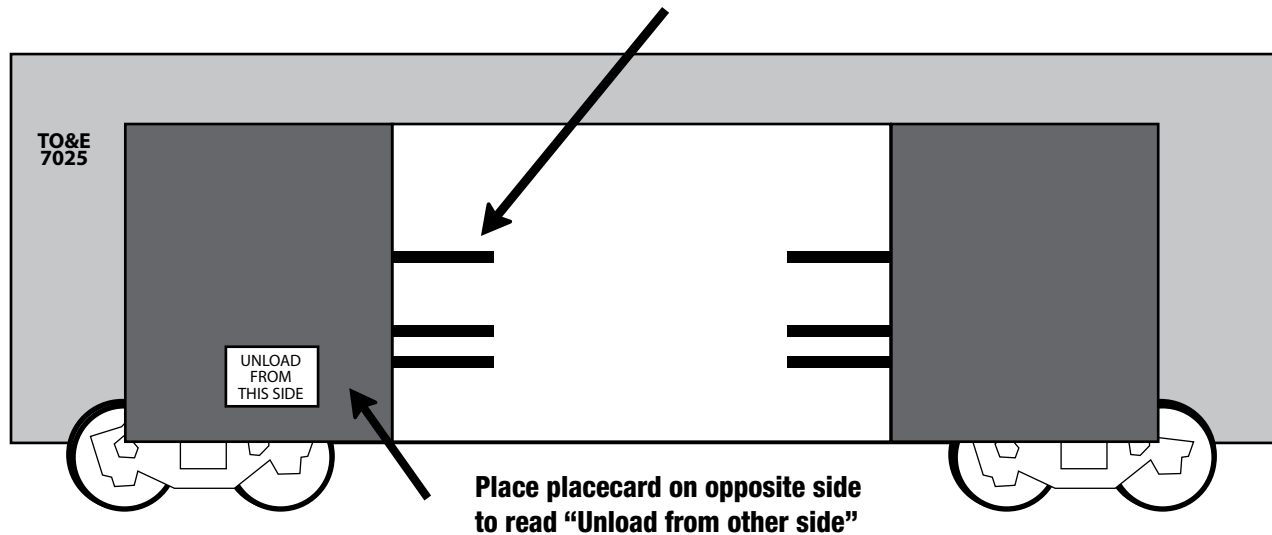
- Use extreme care when opening any type of railcar door to protect against injury.
- Even if the car is supposed to be empty, be aware there is always the possibility that material or lading may be leaning against the car door or applying pressure.
- Before attempting to open the doors of any railcar:
 - ▶ Inspect to make sure that all door hardware is intact so it can be opened safely.
 - ▶ Inspect the door tracks to make sure they are equipped with stops on the ends so door doesn't roll off the ends when opening.
 - ▶ On sliding doors, inspect top and bottom door tracks to see if they are broken or damaged.
 - ▶ On plug-type doors, inspect locking bars, crank arms and tracks to see if they are broken or damaged. Also, be aware of pressure against door that might cause handle to spin.
- **Before fully opening the door, check again to make sure the door is operating properly and nothing inside will fall out.**

Railcar Loading

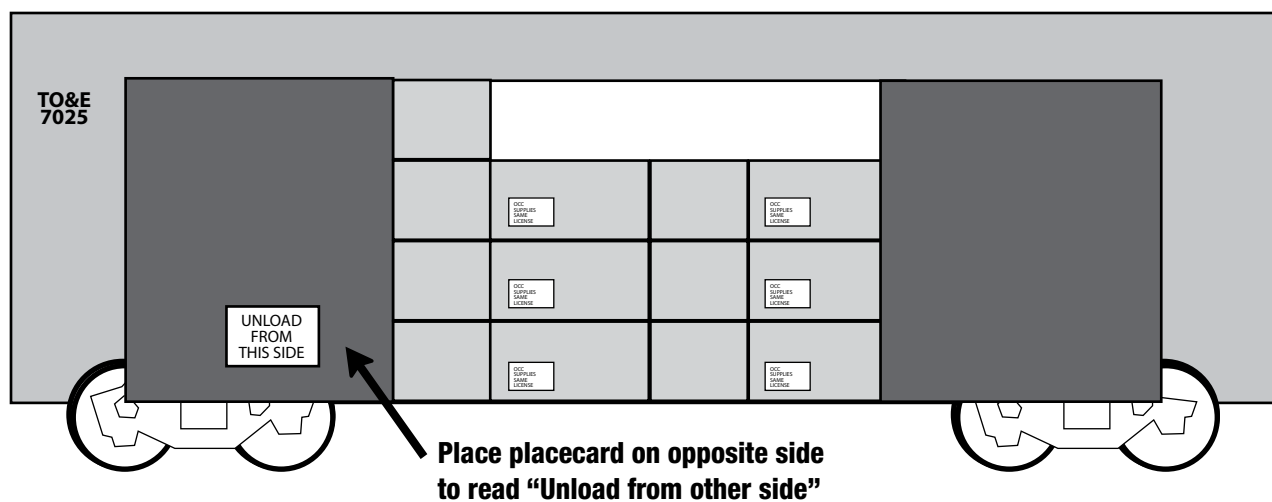
- Inspect the railcar for damage prior to loading. Do not load damaged railcars or cars with weak floors or damaged doors. Railcar and doors must be watertight. Place railcar seals on doors after the car is loaded and doors are closed.
- Cars that have residue in them should be rejected and returned to the railroad for cleaning; OR the residue must be removed prior to loading.
- In both doorways, load bales 3 high.
- Placard both sides of the railcar. One side should be placarded "Unload Other Side" and the side the car is loaded from should be placarded "Unload This Side." Remove any old placards.
- Place a copy of the bill of lading in a plastic sleeve and place it on the last stack of bales loaded into railcar.
- Do not load railcars with door openings less than 10' wide.
- If doorways will be strapped, for safety reasons, strapping must be non-metallic (such as Caristrap).
- Railcars and bales must be free of snow and ice.
- Ensure there are no voids in the car per the Association of American Railroads (AAR) guidelines.

SAFE LOAD PATTERNS—RAIL

- Steel banding poses a **very real** safety concern. Remove ALL steel banding from the doorway before loading bales. Suspended metal banding is hazardous.



- Sweep car before loading.
- Always load **low** density bales on top of **high** density bales.
- Load bales only three high in front of both doors. Remember, someone on the other end of your shipment has to unload this car and be able to unload from either side.
- Remove all old placards and apply new placards to the railcar before shipping.



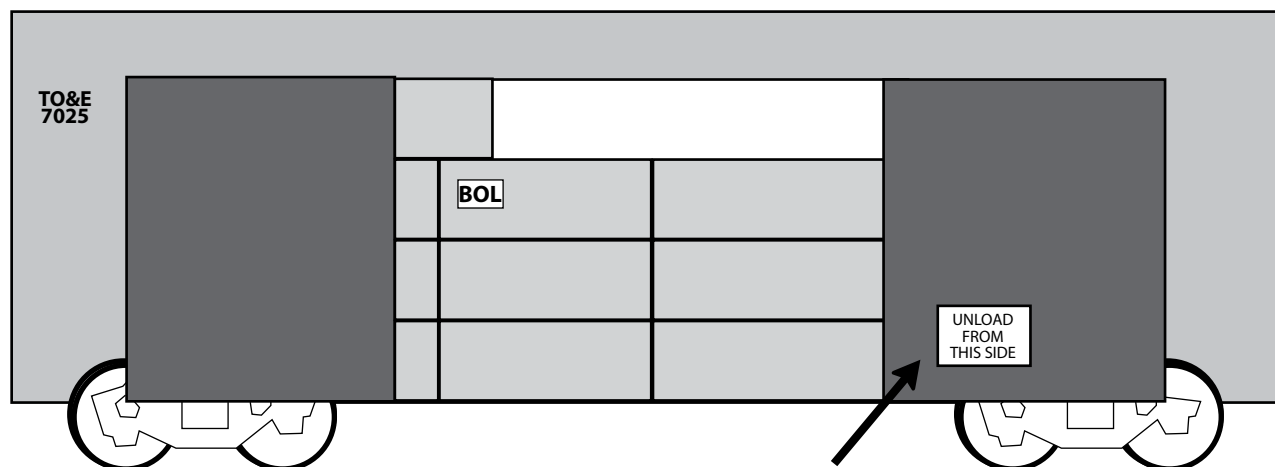
- Do not push loose paper into the car when loading.
- Do not load pallets or mill roll dunnage.

SAFE LOAD PATTERNS—RAIL

Bales 48" x 48" x 32"

In Both Doorways, Load Bales to Three (3) High Only

Minimum of 10' doors on all railcars.



Place additional placecard on opposite side to read "Unload from other side"

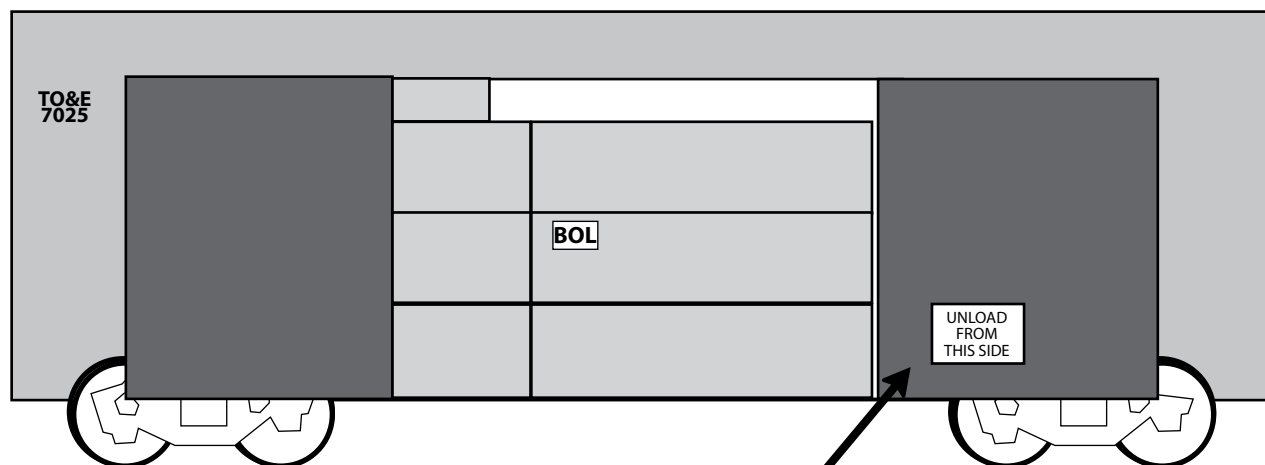
Place **Bill of Lading (BOL)** in plastic sleeve on the last stack of bales loaded onto railcar.

SAFE LOAD PATTERNS—RAIL

Bales 72" x 31" x 48"

In Both Doorways, Load Bales to Three (3) High Only

Minimum of 10' doors on all railcars.



Place additional placecard on opposite side to read "Unload from other side"

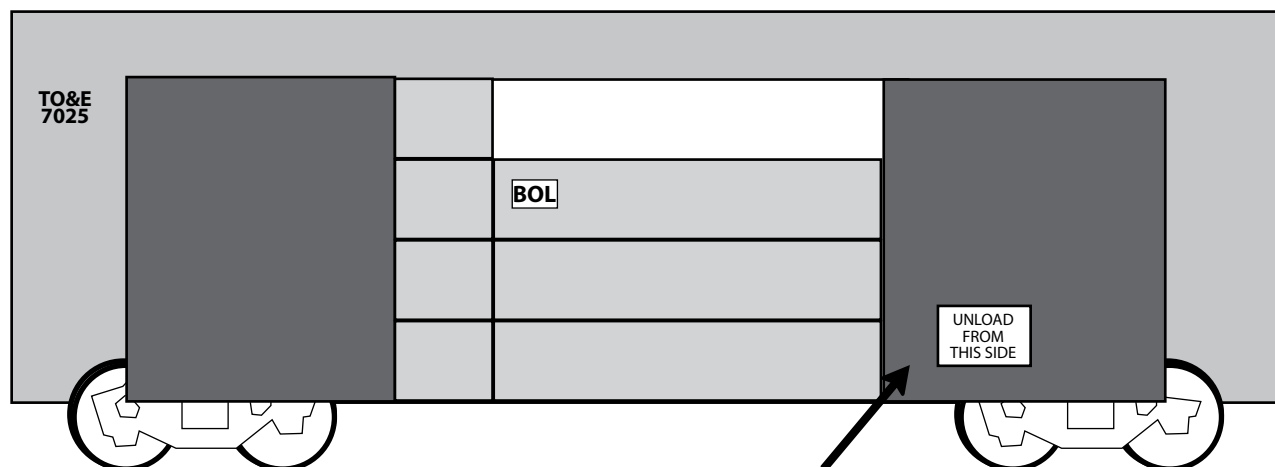
Place **Bill of Lading (BOL)** in plastic sleeve on the last stack of bales loaded onto railcar.

SAFE LOAD PATTERNS—RAIL

Bales 60" x 31" x 48"

In Both Doorways, Load Bales to Three (3) High Only

Minimum of 10' doors on all railcars.



Place additional placard on opposite side to read "Unload from other side"

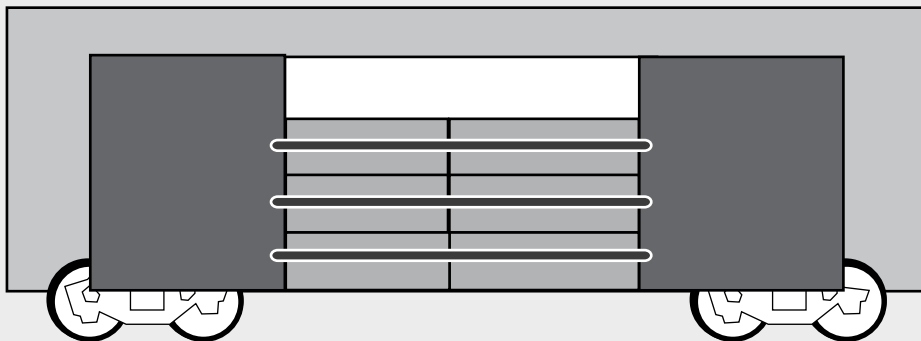
Place **Bill of Lading (BOL)** in plastic sleeve on the last stack of bales loaded onto railcar.

DOORWAY PROTECTION FOR BALED PAPER—RAIL

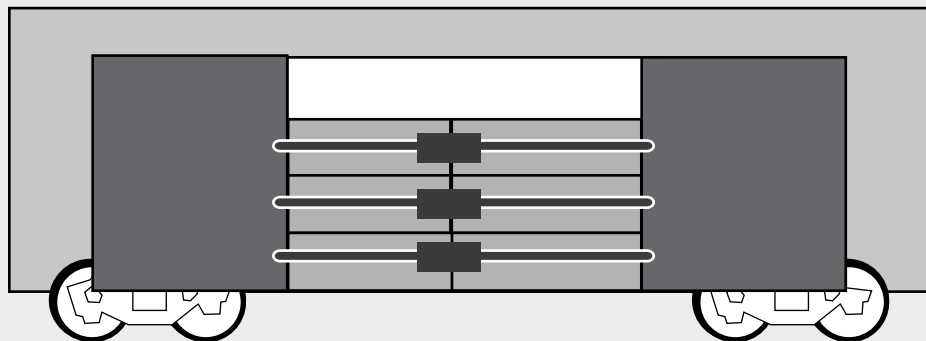
Loaded in Boxcars

The Association of American Railroads (AAR) has issued **General Information Series No. 665-Doorway Protection for Baled Paper Products in Boxcars (Appendix B)**.

These rules *MUST BE OBSERVED*.



For safety reasons, Poly Strap is the recommended strapping. Use one strap per layer in the center of the layer.



Note the placement of the bale strap.

1¼" Steel Banding is approved by the AAR but due to safety concerns, it is strongly recommended to use poly strap.

REJECTION CRITERIA

► **Mills may reject any load which they believe compromises the safety of its employees. The mill's decision is final.**

The following are reasons for rejection:

- Mill's acceptable load patterns are not followed.
- Dangerous materials are present.
- Poor bale integrity.
- Loads improperly secured. Mills require all loads to be properly secured.
- Bales shift during transport and, in the case of flatbeds, cannot be unstrapped without falling off of the truck.
- Bottom bales break and let stacks fall during unloading.

► *The safety of employees **must not** be compromised. Drivers must follow all posted rules of the loading or unloading facility.*

VEHICLE INSPECTION REPORT

Carrier: _____ Pick-up/Release #: _____

Trailer: _____ Railcar: _____ Date: _____

Vehicle ID #: _____ Inspected By: _____

Cleanliness

- ☐ Okay
- ☐ Debris
- ☐ Dirty
- ☐ Dusty
- ☐ Oil Stains
- ☐ Odor
- ☐ Painted

Roof

- ☐ Okay
- ☐ Holes
- ☐ Leaking
- ☐ Split Seams
- ☐ Rust Spots
- ☐ Peeling Paint
- ☐ Water Stains

Walls

- ☐ Okay
- ☐ Holes
- ☐ Leaking
- ☐ Protrusions
- ☐ Rust Streaks
- ☐ Contaminants
- ☐ Split Seams

Floor

- ☐ Okay
- ☐ Holes
- ☐ Wet
- ☐ Protrusions
- ☐ Contaminants
- ☐ Split Seams
- ☐ Nails

Doors

- ☐ Okay
- ☐ Holes
- ☐ Leaking
- ☐ Bowed
- ☐ Won't Open
- ☐ Won't Close
- ☐ Broken Latch

Additional Comments:

TRAILER INSPECTION CHECKLIST

This form must be completed before loading will take place.
TRUCK DRIVER MUST COMPLETE THIS SECTION (QUESTIONS 1-6)

1. Year of Trailer _____

2. Trailer Condition—please note any and all defects

Trailer Area	No Defects	Type of Defect
Floor Crossmembers		
Post-to-Base Rail Fasteners		
Baserail & Side Skin		
Floor Boards		
Landing Gear		
Doors		

3. Length of Trailer _____ ft.

4. Trailer Status

Trailer Status	Yes	No
At least 1 wheel chocked		
Tandems slid to rear of trailer		
Has trailer been swept?		

5. Is Trailer Air Ride? Yes No (if yes, do not release air)

6. I certify that this trailer is suitable for loading containerboard material.

Carrier Name _____

Trailer # _____

Truck Driver's Signature _____

Date _____

SCALE ATTENDANT COMPLETES THIS SECTION

	Yes	No
Is trailer a refer?		
Does trailer have a roll up or side door?		
Does trailer have pallets on in?		

Empty Scale Weight? _____ lbs.

Scale Attendant Signature _____

Date _____

CHECKLIST FOR TRAILER PRE-LOAD SAFETY INSPECTION

NOTE: Decisions to load trailers with minor damage are many times a matter of judgement. These guidelines are meant primarily as a map to point out important areas of consideration which should be discussed in the workplace before a loading decision is made.

OUTSIDE TRAILER				
OK	Possible Problem	Item	Defect	Specification
		Floor crossmembers	Galvanic corrosion between mounting clip and baserail	Consider rejecting trailer if evidence of severe rust or corrosion is seen in critical attachments.
		Floor crossmembers	Severely bent or cracked crossmembers	Crossmembers should be spaced no more than 12 inches apart for loading roll stock. 6, 8, or 10 inch spacing is preferable. Consider rejecting trailer if any crossmembers are severely bent or cracked, or if spacing more than 12 inches when loading dense material such as roll stock.
		Crossmember fasteners	Missing or damaged fasteners. Watch for shifted crossmembers where heads are intact but rivets are sheared.	Steel rivets or bolts preferred over aluminum rivets. Consider rejecting trailer if any missing or damaged fasteners especially in center section of trailer between landing gear and rear wheels.
		Post-to-baserail fasteners	Rivets with heads sheared off. Watch for tear which continues and cuts through a side post.	Consider rejecting trailer if one rivet head is missing in a four rivet connection or if 2 or more heads sheared off in any 6-rivet connection.
		Baserail and side skin	Baserail bent or cracked. Side skin cut, torn, or otherwise damaged.	Consider rejecting trailer if any damage to baserail or side skin exceeding about 21 inches is not structurally repaired. (Note: Caulking or sticky aluminum tape is not a structural repair!)
		Landing gear	Severely bent or broken bracing	Consider rejecting trailer if any bracing is bent excessively or any bracing connections are broken. IMPORTANT: Consider use of trailer support jacks if tractor is not connected. Move tandem wheels to rear to prevent trailer tipping.
		Landing gear	Missing or damaged fasteners	Consider rejecting trailer if any rivet heads are sheared off or any fasteners are missing.
		Doors*	Locking mechanism damaged	Consider rejecting trailer if doors cannot be properly closed and locked.
		Doors*	Gaskets or seals damaged	Consider rejecting trailer if door gaskets or seals will not completely seal out dirt and water around doors.
		Other		

*Door recommendations are made to prevent product damage. Door condition would not normally affect structural integrity for loading.

CHECKLIST FOR TRAILER PRE-LOAD SAFETY INSPECTION

NOTE: Decisions to load trailers with minor damage are many times a matter of judgement. These guidelines are meant primarily as a map to point out important areas of consideration which should be discussed in the workplace before a loading decision is made.

INSIDE TRAILER				
OK	Possible Problem	Item	Defect	Specification
		Floor	Delaminated floor area	Do not drive lift truck wheels over areas of suspected floor delamination.
		Floor	Wavy floor	May indicate a bent or cracked cross member. Investigate further or consider rejecting trailer. (See outside trailer inspection procedure.)
		Floor	Wet spots	Could be leaks from roof or nose. If in floor, usually indicates delamination or leak at butt joint. Consider rejecting trailer.
		Floor	Holes; broken floor boards	None allowed. Consider rejecting trailer. (Use caution and keep load very low when driving over a repair.)
		Roof	Bent, broken, or missing roof bows	Consider rejecting trailer if one or more roof bows is missing or severely bent or broken in the middle 1/3 of the trailer.
		Roof*	Cracked or damaged roof sheet	Consider rejecting trailer if roof sheet cracked or slit and unrepaired.
		Roof*	Holes (light showing through)	None allowed. Consider rejecting trailer.
		Nose*	Smooth, flat (vertical) face. No evidence of water leaks	Consider rejecting trailer if risk of causing product damage.
		Sidewalls*	Rough or jagged plywood	Consider rejecting trailer if risk of causing product damage.
		Other		

*These faults are likely to affect product damage, not structural loading integrity.

Comments:

Final decision after consulting with management:

☐ OK to load
☐ Meet with Management _____
Signature
☐ Consider rejecting Trailer

Institute of Scrap Recycling Industries, Inc.
1325 G Street, N.W., Suite 1000
Washington, DC 20005-3104

Tel 202/737-1770
Fax 202/626-0900
isri@isri.org
www.isri.org



Institute of
Scrap Recycling
Industries, Inc.