



# **SAFE SHIPPING**

**The ISRI/AF&PA Shipping Guide  
for Baled Paper Products**

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**Shipping is one of the most important areas where you, as a supplier, can help your customer. The safety of the load is the number-one priority. This document covers the following aspects of shipping to a paper mill:**

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## DISCLAIMER:

You are responsible for safety practices. This material does not include all practices for all situations. The use of this material is not required by ISRI or AF&PA. It is provided for your use as desired and at your sole discretion.

# VAN TRUCK LOADING

Safety is the #1 priority. To ensure safety, the following requirements **MUST** be followed.

## 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.

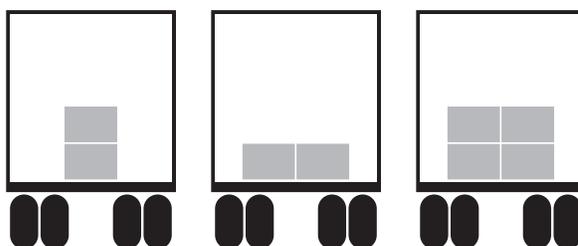
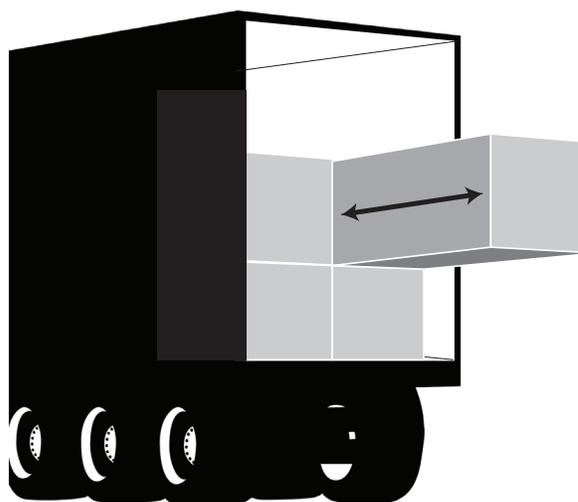
## What to know while loading bales:

- 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!**
- 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.
- Do not stagger bales or stack one bale in the center of two 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.

## Load it SAFELY or DO NOT SEND!

Reasons for rejection at a mill include but are not limited to:

- Acceptable load patterns are not followed.
- Dangerous materials are present.
- Poor bale integrity.
- Loads improperly secured.
- Bales shift during transport.
- Bottom bales break and let stacks fall during unloading.



**Last row must be loaded lengthwise and be no more than two bales high.**

# SAFE, RELIABLE METHOD FOR OPENING TRAILER DOORS

- 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 an employee of the receiving operation for help.

**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.

- 2 Use a safety strap when opening trailer doors to prevent the trailer doors from opening and allowing the load to fall to the ground. Make sure the strap is functional and sufficient for the task.
- 3 While standing behind trailer, ensure that both ends of the strap are connected to trailer door latches.
- 4 Standing behind the left door, release the latch(es) on the right door and carefully open with the strap installed.

**Check to see if the cargo is stable.**

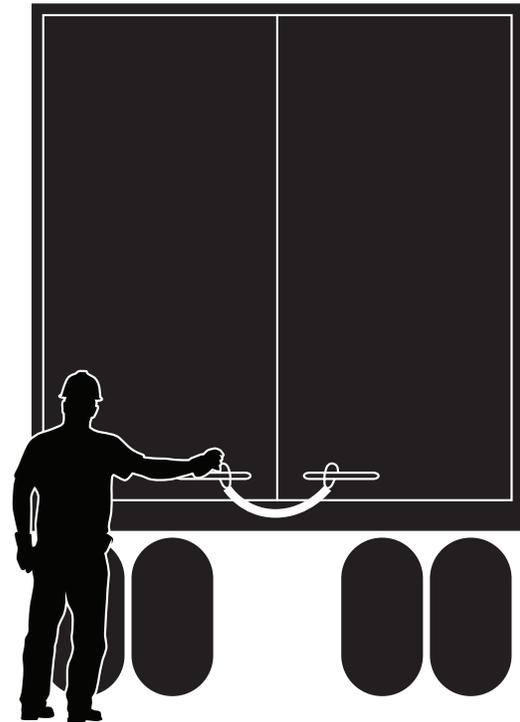
- 5a If “No,” stop and get help from an employee of the receiving operation.
- 5b If “Yes,” move behind the right door, carefully release the latch on the left door with the strap installed and look inside the trailer to be sure nothing is leaning against the left door. If load is stable, carefully remove the strap and open both doors. If there is concern about anything falling, contact an employee of the receiving operation.

## Potential hazards

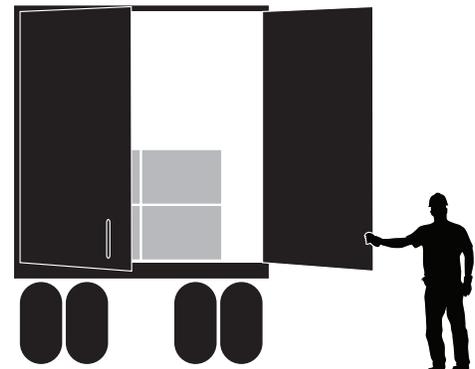
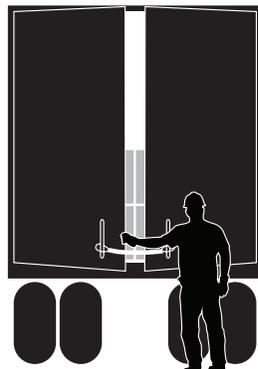
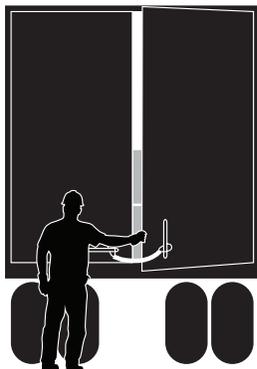
An employee can be struck by, or crushed by, falling material when doors are opened. An employee can be struck by a swinging door due to material pushing on the doors.

## Personal protective equipment (PPE)

As required by the shipping and receiving operations’ policies.



Utilize a safety strap when opening trailer doors.



# MÉTODO SEGURO Y CONFIABLE DE ABRIR LAS PUERTAS DE LOS TRAILERES

- 1 Nunca abras 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 estar abultadas, pídale ayuda a un empleado de la operación de recepción.
- 2 Utilice una correa de seguridad cuando abra las puertas del trailer. La correa prevendrá la apertura de las puertas del trailer y que la carga se caiga. Asegúrese que la correa es suficiente y eficiente para la tarea.
- 3 Mientras que este parado detrás del trailer, asegúrese que los dos extremos de la correa están ligado a los pestillos de las puertas del trailer.
- 4 Aun detrás de la puerta izquierda, corra el pestillo o los pestillos de la puerta derecha y abra-la con cuidado con la correa instalada.

## Revisa si la carga es estable.

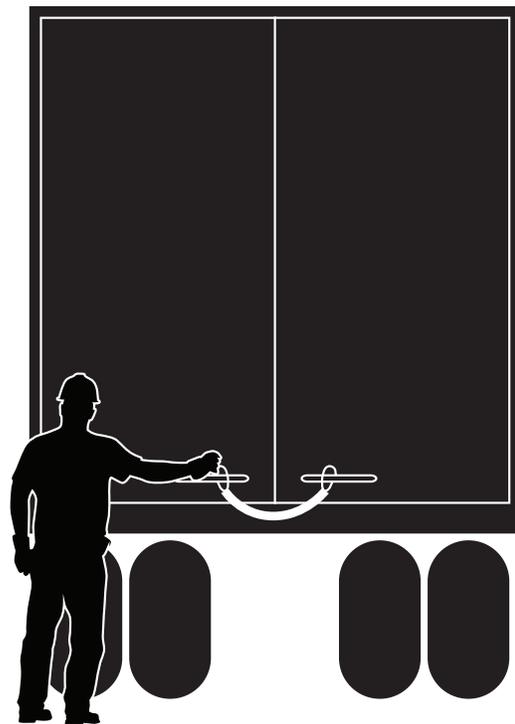
- 5a Si la carga es estable, retire la correa con cuidado y abra ambas puertas.
- 5b Si tiene alguna preocupación respecto a que algo se puede caer, póngase en contacto con un empleado de la operación de recepción.

## Reisgos Potenciales

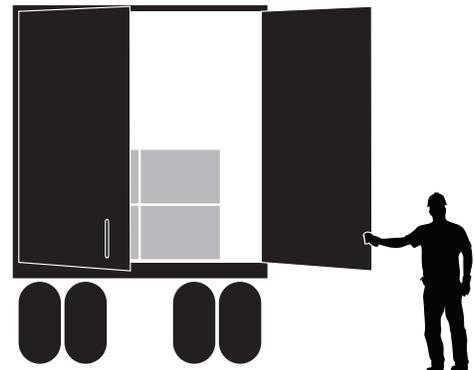
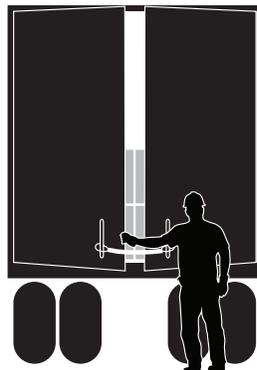
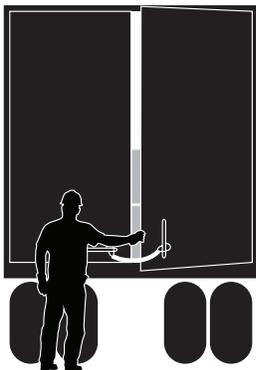
Los empleados pueden ser aplastados por las cargas al abrir las puertas. Los empleados pueden ser golpeados por las puertas debido al material que esta recostado en ellas.

## Equipo de Protección Necesitado

Como es requerido para las políticas de operación de envío y recepción.



**Utilice una correa de seguridad cuando abra las puertas del trailer.**

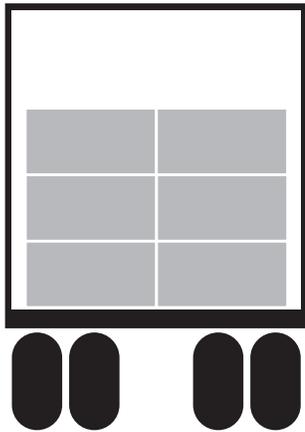


# ACCEPTABLE TRAILER LOAD PATTERNS – Interior Rows

**NOTE: Does not apply to last row of bales by trailer door!**

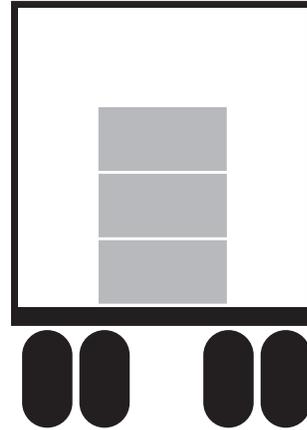
**Load trailer to maximum capacity.**  
Leave adequate clearance from sides and top of trailer to enable safe loading and unloading. Trailers are typically unloaded with bale clamps, not straight forks.

**YES**



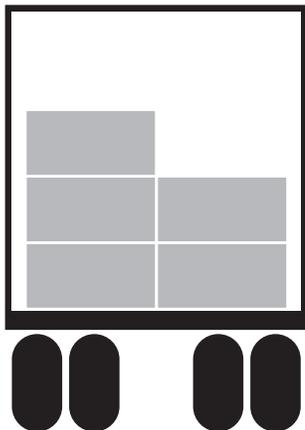
Load bales squarely on top of bottom bales. Leave adequate clearance from sides and top of trailer to unload safely.

**YES**



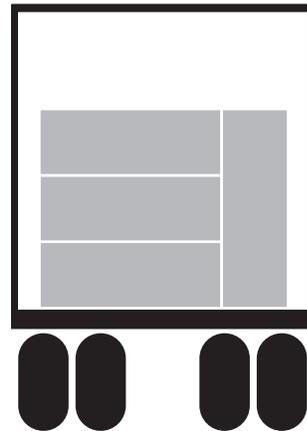
Load bales squarely on top of bottom bales. Maximum length is 72”.

**YES**



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

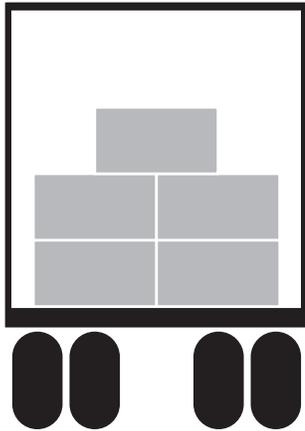
**OK**



**Acceptable—not preferred:** Load one vertical bale on side (must leave adequate clearance on each side of load).

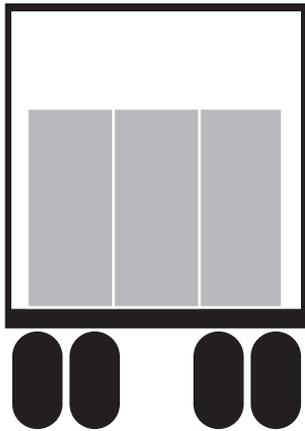
# UNACCEPTABLE TRAILER LOAD PATTERNS – Interior Rows

**NO**



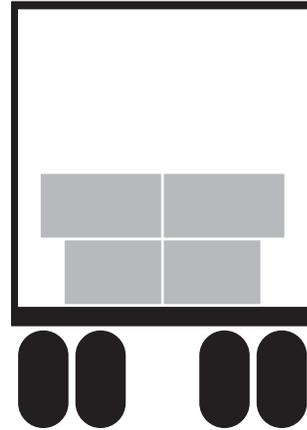
Do not stack bales partially on top of bottom bales.

**NO**



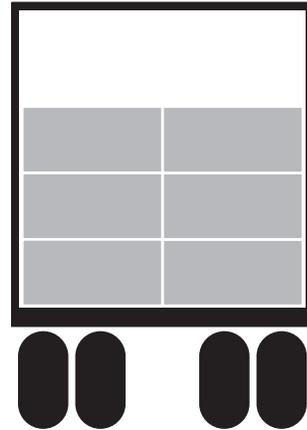
Do not stack bales on end.

**NO**



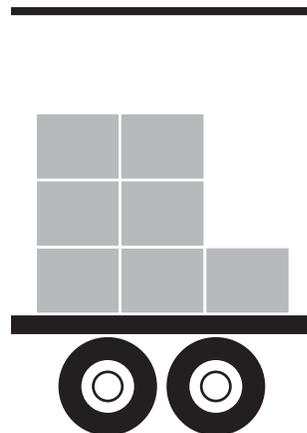
Do not stack large bales on top of smaller bales.

**NO**



Bales too wide. Leave adequate clearance on each side of load. Maximum length of bales is 72”.

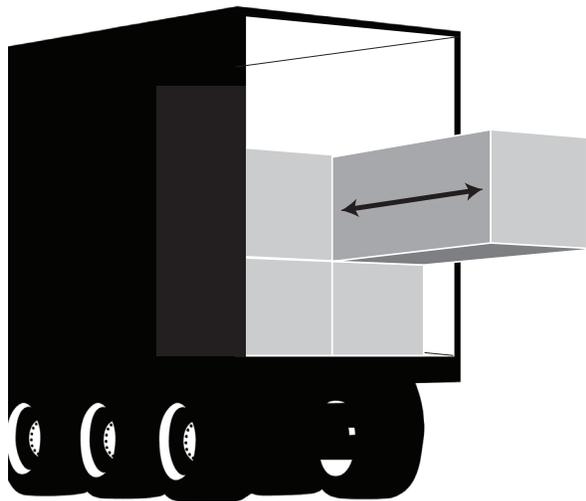
**NO**



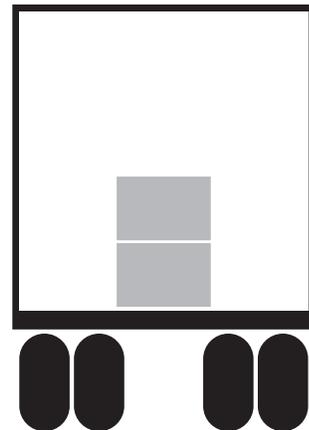
Never place a stack of 3 next to a stack of 1.

# ACCEPTABLE TRAILER LOAD PATTERNS – Last Row

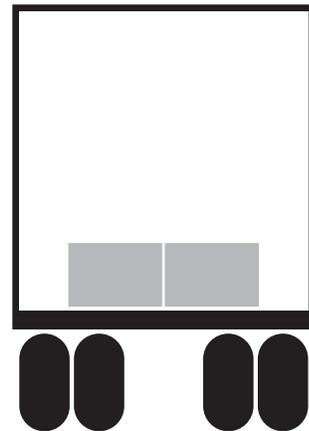
Bales must be no more than 2 high and turned lengthwise with the length of the trailer.



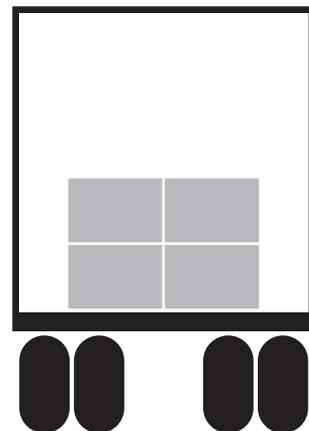
YES



YES



YES



# PROCESS FOR LOADING AND UNLOADING FLATBEDS

Keep drivers clear at all times while loading or unloading!

## Loading procedures:

- Stack bales side by side. The last two stacks on either end of the trailer should be two bales high.
- Bales should be stacked squarely on top of one another. Do not stagger bales or stack one bale in the center of two bales.
- Do not stack bales vertically or standing on end.
- Load only four stacks per side at a time 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 or stack at the end of the truck
- Bales should be securely strapped to the flatbed.

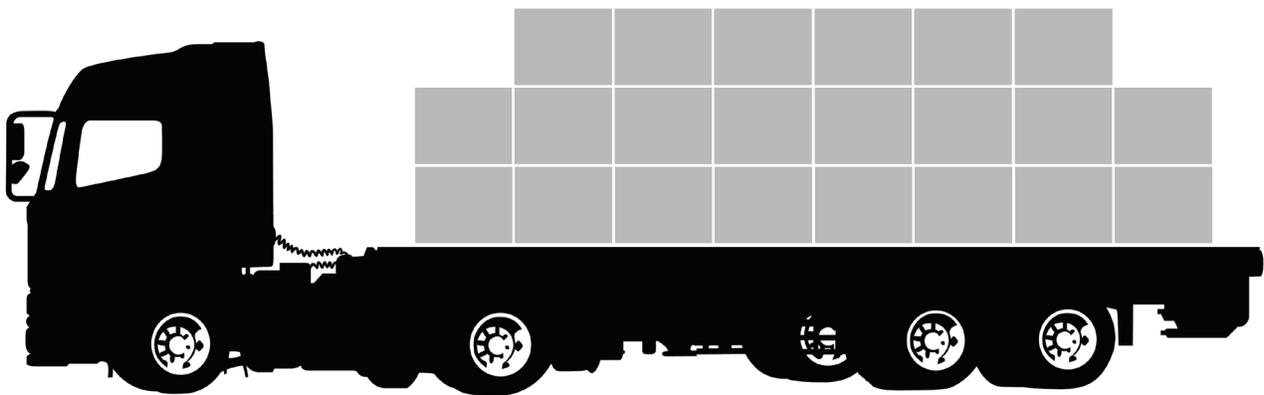
## Safety First!

Before loading the flatbed trailer:

- 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.

## Unloading procedures:

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



**Example of a 48' flatbed: Bales are stacked side by side for eight stacks on each side. The first and last row are two bales high, the balance three bales high.**

# RAILCAR DOOR SAFETY

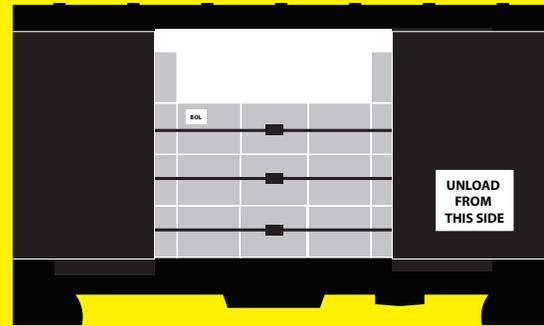
## Before opening any railcar door:

- 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.
- 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 the handle to spin.
- **Before fully opening the door, check again to make sure the door is operating properly and nothing inside will fall out.**

## Doorway Protection for Baled Paper

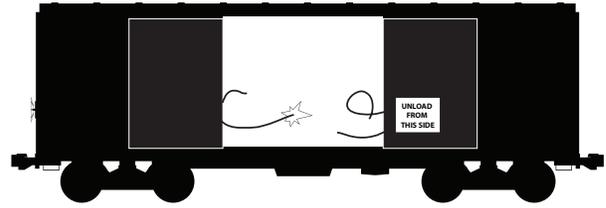
The Association of American Railroads (AAR) has issued *General Information Series No. 690 – Doorway Protection for Baled Paper Products in Boxcars*. These rules must be observed.

- For safety reasons, poly strap is the recommended strapping. Use one strap per layer in the center of the layer.
- 1 1/4" steel banding is approved by the AAR but, due to safety concerns, poly strap is strongly recommended.

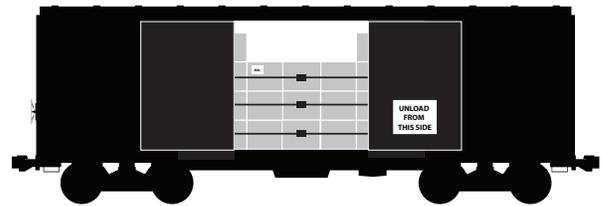


# RAILCAR LOADING SAFETY

- **Inspect the railcar for damage prior to loading.** Do not load damaged railcars or cars with weak floors or damaged and/or inoperable doors. Railcar and doors must be watertight. Place railcar seals on doors after the car is loaded and doors are closed.
- Do not load railcars with door openings less than 10' wide.
- Ensure car is clean before loading. 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.
- 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.
- Railcars and bales must be free of snow and ice.
- In both doorways, load bales so that there is adequate clearance between the door and the last bale loaded.
- There must be adequate clearance between the top of the railcar and bales. This is necessary to facilitate unloading without damaging equipment and/or the railcar.
- Do not load any bales vertically (standing on end). These bales are unstable and could shift during transit causing a hazard when unloading.
- Always load low-density bales on top of high-density bales.
- Do not load loose paper, broken bales, rolls of paper, pallets or dunnage in railcars.
- 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.
- Ensure there are no voids in the car per the Association of American Railroads (AAR) guidelines.



**Remove all steel banding from the doorway. Apply placards to both sides of the car ("Open This Side"/"Open Other Side").**



**In both doorways, load bales so that there is adequate clearance between the top of the railcar door and bales.**

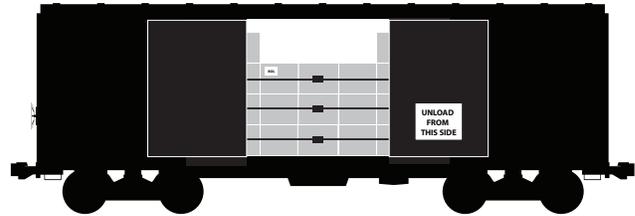
# SAFE RAILCAR LOAD PATTERNS

The following apply regardless of bale dimensions:

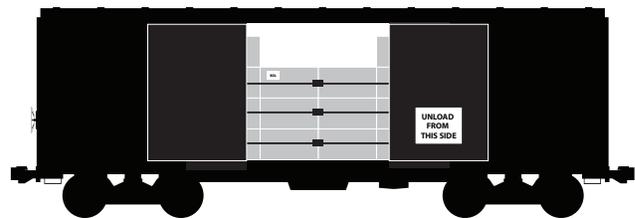
- Minimum of 10' doors on all railcars
- Do not load bales vertically or stack bales above the header of the door, as this may cause the bales to fall during transfer.
- In both doorways, always create a space to allow for proper unloading.
- Place a copy of the Bill of Lading in a plastic sleeve on the last stack of bales loaded onto railcar.
- Apply placards to both sides of the car (“Unload This Side”/“Unload Other Side”).

## Important!

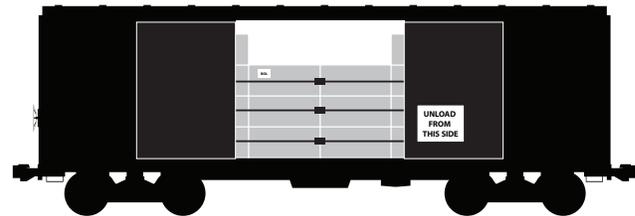
In both doorways, load bales so that there is adequate clearance between the top of the railcar door and the bales.



**Bales 48" x 48" x 32"**



**Bales 60" x 31" x 48"**



**Bales 72" x 31" x 48"**

## REJECTION CRITERIA

Receiving operation may reject any load that it believes may compromise the safety of its employees.

Reasons for rejection include but are not limited to:

- Receiving operation's acceptable load patterns are not followed.
- Dangerous materials are present.
- Poor bale integrity.
- Loads improperly secured.
- Bales shift during transport and, in the case of flat-beds, 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.

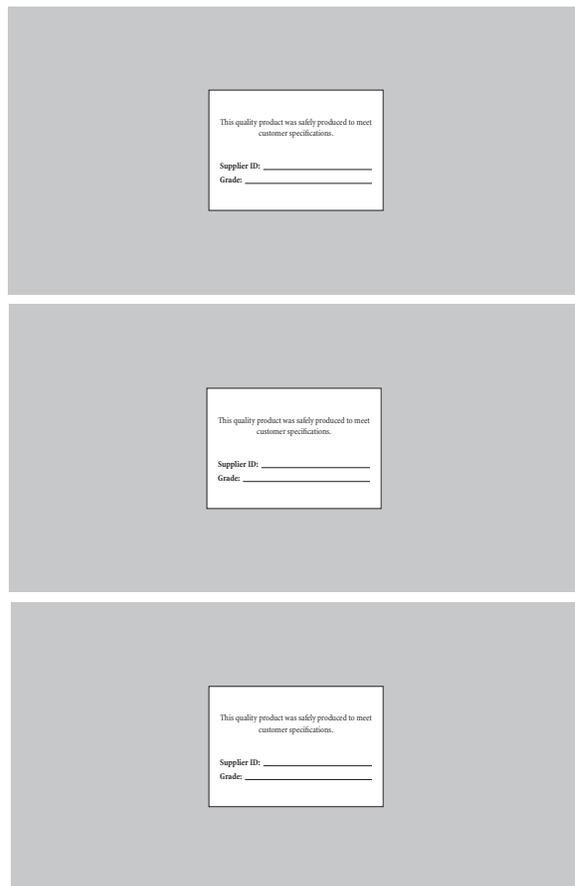
# BALE TAGS

**A tag similar to the example below can be used to identify your bales to the mill.**

This quality product was safely produced to meet customer specifications.

Supplier ID: \_\_\_\_\_

Grade: \_\_\_\_\_



**All bales should be tagged as shown above.**

# VEHICLE INSPECTION REPORT

Carrier: \_\_\_\_\_

Pickup / Release #: \_\_\_\_\_

Trailer: \_\_\_\_\_

Railcar: \_\_\_\_\_

Date: \_\_\_\_\_

Vehicle ID#: \_\_\_\_\_

Inspected by: \_\_\_\_\_

## Cleanliness

- Okay
- Debris
- Dusty
- Oil stains
- Odor
- Painted

## Roof

- Okay
- Leaking
- Split seams
- Peeling paint
- Water stains
- Holes

## Walls

- Okay
- Leaking
- Protrusions
- Rust streaks
- Contaminants
- Split seams
- Holes

## Floor

- Okay
- Holes
- Wet
- Protrusions
- Contaminants
- Split seams
- Nails

## Doors

- Okay
- Leaking
- Bowed
- Won't open
- Won't close
- Broken latch
- Holes

## Additional comments:

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# TRAILER INSPECTION CHECKLIST

This form must be completed before loading will take place.

## Driver must complete section below:

1 Year of trailer: \_\_\_\_\_

2 Length of trailer: \_\_\_\_\_

3 Trailer condition (please note any and all defects)

Floor crossmembers:  No defects  
 Defect: \_\_\_\_\_

Post-to-baseraill fasteners:  No defects  
 Defect: \_\_\_\_\_

Baseraill & side skin:  No defects  
 Defect: \_\_\_\_\_

Floor boards:  No defects  
 Defect: \_\_\_\_\_

Landing gear:  No defects  
 Defect: \_\_\_\_\_

Doors:  No defects  
 Defect: \_\_\_\_\_

4 Trailer status (please note any and all defects):

At least 1 wheel chocked?  Yes  No

Tandems slid to rear of trailer?  Yes  No

Has trailer been swept?  Yes  No

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

6 I certify that this trailer is suitable for loading.

Carrier name: \_\_\_\_\_

Trailer#: \_\_\_\_\_

Driver's signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Scale attendant completes section below:

Is trailer a refer?  Yes  No

Does trailer have a roll up or side door?  Yes  No

Does trailer have pallets on in?  Yes  No

Empty scale weight: \_\_\_\_\_

Attendant's signature: \_\_\_\_\_

Date: \_\_\_\_\_

# CHECKLIST FOR TRAILER PRE-LOAD SAFETY INSPECTION – Outside Trailer

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

- |   |   |
|---|---|
| <p>Floor crossmembers <input type="checkbox"/> OK</p>         | <p><b>POTENTIAL DEFECT (SPECIFICATION)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Galvanic corrosion between mounting clip and baserail</b> (Consider rejecting trailer if evidence of severe rust or corrosion is seen in critical attachments.)</li> <li><input type="checkbox"/> <b>Severely bent or cracked crossmembers</b> (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.)</li> </ul> |
| <p>Crossmember fasteners <input type="checkbox"/> OK</p>      | <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Missing or damaged fasteners. Watch for shifted cross members where heads are intact but rivets are sheared.</b> (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.)</li> </ul>  |
| <p>Post-to-baserail fasteners <input type="checkbox"/> OK</p> | <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Rivets with heads sheared off. Watch for tear which continues and cuts through a side post.</b> (Consider rejecting trailer if one rivet head is missing in a four rivet connection or if 2 or more heads are sheared off in any 6-rivet connection.)</li> </ul>   |
| <p>Baserail and side skin <input type="checkbox"/> OK</p>     | <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Baserail bent or cracked. Side skin cut, torn, or otherwise damaged.</b> (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!)</li> </ul>   |
| <p>Landing gear <input type="checkbox"/> OK</p>               | <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Severely bent or broken bracing</b> (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.)</li> <li><input type="checkbox"/> <b>Missing or damaged fasteners</b> (Consider rejecting trailer if any rivet heads are sheared off or any fasteners are missing.)</li> </ul>   |
| <p>Doors* <input type="checkbox"/> OK</p>                     | <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>Locking mechanism damaged</b> (Consider rejecting trailer if doors cannot be properly closed and locked.)</li> <li><input type="checkbox"/> <b>Gaskets or seals damaged</b> (Consider rejecting trailer if door gaskets or seals will not completely seal out dirt and water around doors.)</li> </ul>   |

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 – Inside Trailer

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

Floor  OK

Roof\*  OK

Nose\*  OK

Sidewalls\*  OK

Other

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---

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Comments

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Final decision after consulting with management:

OK    Meet with management    Consider rejecting trailer

Signature

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



*Voice of the Recycling Industry*

**Institute of Scrap Recycling Industries**

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Association**

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