

December 4, 2014

Dear Union Pacific Pipe Shipper:

The safety of our employees, our customers and the public at large remains the number one priority for Union Pacific Railroad. One way we can work to accomplish safety together is by ensuring our customers adhere to the Association of American Railroads (AAR) Open Top Loading Rules. These rules are contained within Section 2: Metal Products, Including Pipe of the Open Top Loading Rules manuals.

The AAR-approved pipe loading figures are specific in securement requirements: type of pipe, dimension and diameters, type of railcar utilized for the shipment, and the individual requirements for the particular governing loading figure. The AAR rules are considered minimum requirements. Within each of these loading figures, specifications for different securement requirements are explained and enhanced drawings associated with the loading figure are provided. All items described under the applicable figures for securing the load must be applied as specified to ensure the safe transport of shipments. We would like to specifically highlight several securement items related to safe pipe loading and transport.

Bearing Pieces, Separators, Chocks, Side of Stub Stakes:

Proper use and application of bearing pieces, separators and chocks are crucial in supporting the integrity of the entire load. Please adhere to the following:

- Wood used in open top loading applications must meet the requirements as described within the loading figure (e.g., wood type or species, length, width and height, placement and required number of pieces within the load in relevance to length or weight of the product).
- All woods must be of good quality, straight-grained and free of decay and strength-impairing knots.
- If the loading figure requires that bearing pieces be secured or chocks be applied to separators, the specifications for application are provided within the figure or the General Rules.
- When utilizing a loading figure that specifically states the dimensions for bearing pieces, separators or chocks, these items must be full cut to those dimensions and be rough cut (not dressed or milled).
- Under specific loading figures, Douglas fir (coast type) is acceptable for use as bearing pieces and separators, where hardwood is specified for loads weighing up to 140,000 pounds.
- Separators must be a minimum 3-inch by 4-inch rough cut.

High-Tension Banding:

High-tension banding is utilized in layer, unitizing and securement banding. These bands must meet the required size and break strength as called for in the loading diagram. The bands must be AAR-approved and display their respective AAR- identifying marks. Seals and joints utilized with this banding must also meet the requirements set forth by the AAR. Placement of these bands must follow the requirements as described within the loading figure.

Polyester Woven Strap:

Polyester woven securement straps are utilized in several of the approved pipe figures. These straps have specific working load limits, size and application requirements, as specified by that individual loading figure. Polyester woven straps must be manufactured by an AAR-approved manufacturer, which will be denoted by an AAR-assigned identification mark. The straps must be located so the identification mark



is visible. Inspection of this strapping material is crucial before applying it to a shipment. The General Rules specify that these straps should be removed from service if the inspection reveals degradation. AAR-approved Polyester Type 1A Strapping Grades 6 and 7 are acceptable for use as substitution for all 2-inch by 0.044-inch and smaller steel bands indicated in all pipe loading figures in Section 2.

Car Type, Product Length and Dimension:

The AAR Open Top Loading Figures provide numerous configurations for different types of pipe and various car types. Load planning is critical to successful transport of your product. Loads must be positioned to distribute the weight of the product evenly over the entire car. Loading figures are specific to product length and diameters, allowing for nominal variance in length. Shippers must adhere to nominal variance as indicated in specific loading figures. The longest lengths of pipe must be located in the bottom of the load with shorter material above the longer material. Loading figures require minimal spacing between the product and the end of the car and minimal spacing between separate sections of product.

Return of Dunnage or Separators:

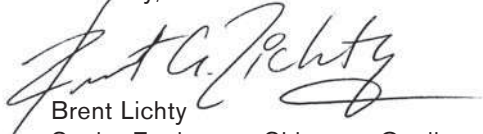
If an agreement has been reached between the origin shipper and the receiver or unloader to return dunnage or separator materials, returned dunnage will be subject to the rules applicable in UPRR Circular 16. This material will be considered cargo or lading and is subject to load securement requirements. The material must be properly bundled and packaged, with two per package (1.25-inch by 0.029-inch high tension steel bands). The bundles must then be secured to the deck of the car using the polyester woven straps or with additional steel banding to secure the bundle and prevent the material from moving or shifting while in transit.

The AAR website provides shippers a downloadable copy of the AAR Open Top Loading Rules Manuals.

At Union Pacific, we take the Open Top Loading Rules seriously and follow all rules stringently. In the future, shippers can and will be held liable if incidents or accidents occur as a result of shipper negligence. These costs can range from thousands of dollars to more than \$1 million. It is our goal to help our shippers avoid both accidents and the associated costs.

This letter is intended to serve as a safety reminder for you and your loading personnel. We appreciate your immediate attention in addressing any compliance issues. If you have questions concerning these rules, please contact your local UP sales representative, Shipment Quality representative Brent Lichty (402-544-6531) or your local Mechanical Department representative. You may also utilize the Union Pacific Railroad website for further details. Thank you for your understanding and assistance. We look forward to continuing to serve you safely, efficiently and economically.

Sincerely,

A handwritten signature in black ink, appearing to read "Brent Lichty", is written over a horizontal line.

Brent Lichty
Senior Engineer – Shipment Quality
Industrial Products and Open Top Loads