TRUCK BUMPERS:

For the past few months there has been a great deal of confusion over the rules for bumpers on farm trucks, especially on the Minnesota side of the North Valley. The RRVSGA has spent considerable time trying to determine the rules and has been working with the Minnesota State Patrol and the Federal Motor Carrier Safety Administration to clear up the confusion. The purpose of this memo is to provide accurate information to all growers from both states on the current status of truck bumper rules.

There are different rules for each state and differences between types of trucks. The types of trucks are broken down into the following three categories:

I. Any truck that is not a semi.

This category covers all sizes of straight trucks, which are single axle, tandem, tri-axle, and quad-axle. Each truck in which the vertical distance between the rear bottom edge of the body (or the chassis assembly if the chassis is the rear most part of the vehicle) and the ground is greater than 30 inches when the motor vehicle is empty, shall be equipped with a bumper. The bumper must be installed and maintained in such a manner that the vertical distance between the bottom of the bumper and the ground does not exceed 30 inches when the motor vehicle is empty. The maximum lateral distance between the closest points between bumpers, if more than one is used, may not exceed 24 inches. The outermost surfaces of the horizontal part of the bumper may not be more than 18 inches from each side extremity of the truck. The bumper may not be more than 24 inches forward of the rear extremity of the truck.

The bumper must be "substantially constructed" and attached by means of bolts, welding, or other comparable means. A truck that is constructed and maintained so that the body, chassis, or other parts of the truck itself provide the rear end protection comparable to bumpers conforming to the requirements of the above paragraph will be considered to be in compliance with those requirements.

Federal Law: The rules must be followed for any straight truck that crosses state lines.
ND Law: The rules must be followed for any straight truck that operates in ND.
MN Law: The rule does NOT need to be followed for trucks operating solely in MN that do not cross state lines.


This category of truck covers any semi-trailer manufactured before January 26, 1998. If you have a semi-trailer manufactured before January 26, 1998, the bumper rule is the same for these semis as it is for straight trucks. Growers should follow the straight truck rules for these semi-trailers. Please remember that any chute attached to the rear of the truck box to avoid spillage on beet pilers needs to be considered as the rear most extremity of the truck.


This category covers any semi-trailer manufactured after January 26, 1998. The date the trailer was manufactured determines which rules to follow. Growers who have trailers manufactured after January 26, 1998 need to abide by the following bumper rules.

Each semi-trailer in this category with a gross vehicle weight rating of 10,000 pounds or more must be equipped with a bumper that meets the requirements of Federal Motor Vehicle Safety Standard No. 223 in effect at the time the vehicle was manufactured. The outermost surfaces of the horizontal part of the bumper must extend to within 4 inches of the side extremities of the truck. The outermost surface of the horizontal part shall not extend beyond the side extremity of the truck. The vertical distance between the bottom edge of the horizontal part of the bumper and the ground shall not exceed 22 inches at any point across the full width of the bumper. Bumpers with rounded corners may curve upward within 10 inches of the longitudinal vertical planes that are tangent to the side extremities of the truck. At any height of 22 inches or more above the ground, the rearmost surface of the horizontal part of the bumper must be within 12 inches of the rear extremity of the truck. Bumpers with rounded corners may curve forward within 10 inches of the side extremity. The horizontal part of each bumper must have a cross sectional vertical height of at least 3.94 inches at any point across the bumper width.

American Crystal has a need for consistency when these bumpers are mounted on this class of semi trailers. Because the ‘A’ door on the end dump of the piler requires a certain clearance, the bumper has to be 22” above the ground,
nothing less, nothing more. Further, American Crystal would prefer you use a 4” round tube rather than a 4” square tube for the horizontal piece on the bumper. This will cause less wear on the belting attached to the ‘A’ door of the end dump.

**MOST IMPORTANTLY, BUMPERS ON THESE TRAILERS MUST BE CERTIFIED.** The rules state that each bumper must be permanently marked or labeled as required by FMVSS No. 223. The label must be on the forward-facing surface of the horizontal part of the bumper, 12 inches inboard of the right end of the bumper.

The certification label must contain the following information:

1) the impact guard manufacturer’s name and address,

2) the statement “Manufactured in ----:” (inserting the month and year that the guard was manufactured), and

3) the letters “DOT”, constituting a certification by the guard manufacturer that the guard conforms to all requirements of FMVSS No. 223.

There is no difference between state or federal law for these trucks because the manufacturing date of the trailer governs the bumper requirement. **ALL TRUCKS IN THIS CATEGORY MUST HAVE A CERTIFIED BUMPER FROM THE MANUFACTURER.**

Included with this newsletter are two diagrams printed on a green sheet which should help you understand the placement of bumpers which need to be added to straight trucks or semi trailers.

If you own a semi-trailer manufactured after January 26, 1998, federal rules require that the manufacturer certify the bumper. If your semi-trailer does not have the certification plate on the bumper, you should contact the manufacturer or the dealer and request that the bumper be certified. If the manufacturer or the dealer objects to this, please contact the RRVSGA office at 701-239-4151.
Bumper located within 24 inches of the rear of the truck, 30 inches above the ground.

Note: at 30 inches the bumper clears the 'A' Door Rubber Flap
Bumper located within 12 inches of the rear of the truck, 22 inches above the ground.

The back side of this bumper is placed 6 inches behind the tire.

Note: When open the steel part of the 'A' door stands 18 inches high with a 12 inch rubber flap.