TECHNOLOGY FOCUS

TRAILER RESTRAINT COST ANALYSIS

—by William J. Guyer, market manager, Kelley Company, Inc.

Conventional cost justification and payback analysis does not always yield a satisfactory buy/no buy decision where trailer restraints are involved. Payback of restraints may not be easily documented, because the benefit of reduced risks is not easily measured. These risks are the projected costs of future accidents, which could have either modest or severe consequences.

The following steps will demonstrate the value of restraints in measurable terms; they should be taken in making a trailer restraint purchase decision:

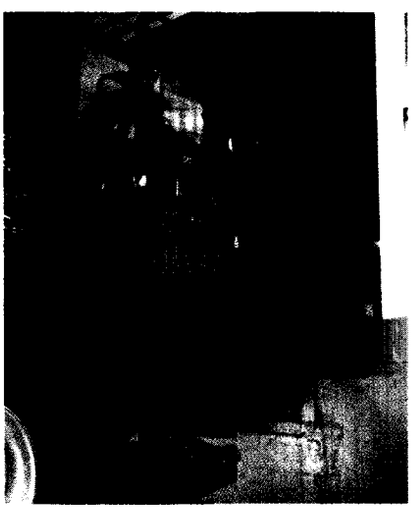
1. *Identify areas of risk.* It's important to document areas of risk in order to pinpoint the extent of risk, as well as help to set up priorities of risk reduction.

This article deals with risks associated with the separation of the trailer from the loading dock while loading/unloading is in process. The risk exists because the loading dock's hectic pace and confined area make communication between the truck driver and the dock attendant difficult. If dock seals or shelters are used, communication is virtually impossible. The truck driver doesn't always know when it is safe to pull out. Also, a dock attendant doesn't know when the truck is going to pull away.

2. *Measure the extent of risk.* The dock attendant is at risk every time he enters or comes out of the trailer during loading or unloading. A company with 10 loading docks, operating two shifts, loading/unloading 80 trailers a day, receiving and shipping palletized loads that average 15 pallets a trailer, will produce 600,000 crossovers (handling a pallet in and out) a year. Thus the dock attendant is at risk 600,000 times a year.

3. *Examine safety records.* These records should document the incidence of prior accidents and all associated costs. Cause of the accidents should be reported and a course of action to reduce the risk of recurrence should be recommended and followed up for implementation.

4. *Seek input from operating personnel.* For a number of reasons, many near misses or close calls go unreported. If a dock attendant does not feel that full disclosure will threaten his associates or supervisor, he will often detail incidence of near misses that go well beyond what is reflected in the safety records. Care must be taken, however, that the details are reported factually and not exaggerated.



5. *Consider application or personnel limitations.* These may affect the extent to which a trailer restraint can reduce risk at your dock. Dock attendants' skills are a consideration. Can they be expected to reliably use a manually activated device? Is there high turnover or use of seasonal workers? Automatic activation should be considered if the above concerns are present. Automatic operation also minimizes the amount of additional training.

The characteristics of your docks and the trailers being serviced are an important consideration. Local dock equipment dealers are able to advise you on these variables. Most manufacturers supply an application survey form to identify potential concerns.

6. *Consider secondary benefits.* The primary benefit of a trailer restraint is to reduce the risk of an accident. Increased productivity can be a significant secondary benefit. Eliminating the cost of wheel chocking is an example. The following timestudy shows the annual labor cost of using wheel chocks on a moderately busy loading dock.

Basis:

- 1 loading dock position
- 4 trucks per day
- 5 minutes to chock and unchock each truck
- 1 man at $22 per hour

Times per day:

- 4 (trucks) x 5 (minutes) = 20 minutes
- 20 (minutes per day) x 250 (working days) = 5,000 minutes

Total man-hours per year:

- 83.3

Total cost per year:

- $1,833 per year per dock position

On a busy dock, eliminating the wheel chocking operation may generate sufficient labor savings to provide cost justification for trailer restraints.

7. *Corporate philosophy.* Generally, the final word on cost reduction relates to the extend of risk and management's approach to handling it. Many trailer restraint users have never had an accident. They recognized the cost of installing restraints as a mere fraction of the cost associated with a single serious accident. They did not want to risk injury to their employees, damage to equipment and product, lost productivity, reduced employee morale and a tarnished image in the community. This is a proactive approach to risk management. Cost justification is impossible if risk is not identified. Cost justification is seldom a problem after an accident has occurred. **MHE**