



Worker Killed by Falling Glass

INCIDENT

A worker was struck by falling sheets of glass as they were being unloaded from a shipping container. He suffered massive lacerations to his face and neck, and died at the scene.

CIRCUMSTANCES

On the day of the accident, a 20-foot container holding large timber cradles containing glass and mirror sheets required unloading. Each cradle contained 11 sheets of glass and weighed approximately 2.5 tonnes.

Routinely, the cradles are pulled from the container and then unpacked in the open. However, because of the large size and construction of these particular cradles, they could not be pulled out of the container. The decision was made to unpack the cradles from within the container – an unsafe practice when compared to the usual method of unpacking the cradles after removal.

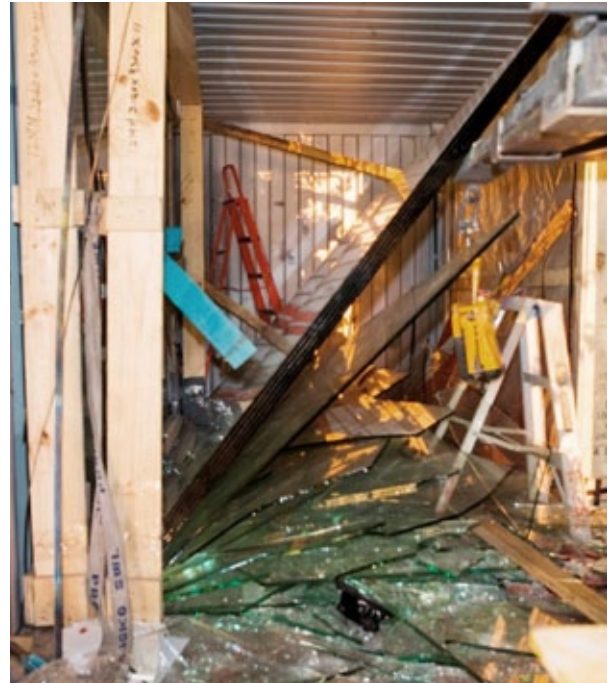
Using suction clamps, three workers lifted the bottom of the first sheet of glass out and away from the cradle's base. However, the top of the glass sheet remained in contact with the other sheets in the cradle. One of the employees tried to separate the top of the lifted sheet from the remaining ones. As he was doing this, six of the remaining glass sheets in the cradle (each weighing 212kg each) started falling over, one by one, on top of the worker.

INVESTIGATION

The storage, handling, transportation and installation of glass sheets and glazing materials constitute a high risk activity with the potential to cause serious harm. The Health and Safety in Employment Act 1992 requires control measures to eliminate, isolate or minimise the risk of persons being injured – in this case, being hit by falling and/or broken glass sheets.

The Department of Labour's investigation into this accident found that there was a failure to:

- provide a job safety analysis, i.e. listing the steps and matching them to potential hazards arising from manually unloading glass sheets from cradles located inside a container;
- ensure that props or restraining devices were used to secure glass sheets during unloading;
- ensure that the workers received adequate information, instructions, and training in relation to the safe unloading of glass from shipping containers;
- ensure that the cradle was adequately tilted so as to keep the remaining glass sheets tilted backward to prevent them from falling; and
- ensure from the supplier that the cradles are designed and constructed in a standard manner so that they can be pulled out easily for unloading.



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Picture 1: View of the collapsed glass sheets (centre). Two timber cradles, each containing 11 sheets of glass, are standing on the left hand side of the container. Glass has fallen out of the first cradle. Broken shards of glass litter the container floor, but some larger sheets of glass have remained intact.



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Picture 2: Close-up of the area where the worker was killed.



DEPARTMENT OF LABOUR ADVICE

It is the Department's advice that when taking steps to eliminate, isolate or minimise a significant hazard, that the hazard controls should be determined by a hazard (or risk) assessment, or a Job Safety Analysis. The following recommended controls are not exhaustive, and it is anticipated that a number of measures may need to be selected and integrated into the method of work to ensure the highest possible level of safety.

- Only workers that are properly trained in the safe handling of glass should unload glass from the cradles.
- Appropriate restraints with fasteners should be used to allow sheets to be removed one at a time, while simultaneously restraining the other sheets to prevent them from falling.
- Approved helmets, gloves, eye protection and mechanical aids should be used while handling glass.
- The working area should be well lit, the work should not be affected by weather conditions, passageways should be clearly defined and mechanical lifting equipment should operate safely.
- Store glass sheets on a 90-degree A-frame (accepted industry practice).
- Store cradles upright or on a 90-degree A-frame, with appropriate chock wedging (e.g. hardwood timber) to prevent the cradle from over-balancing.
- Utilise a container with a soft top, which can be removed so that a crane can lift the glass cradles out of the container into an open area for safe unloading.

WHICH INDUSTRIES/SECTORS OR MATTERS WILL THIS INFORMATION BE RELEVANT TO?

Glass and Glazing materials suppliers, traders, transporters and installers

Note: This material has been prepared using the best information available to the Department of Labour at the time of publication. Information may change over time and it may be necessary for you to obtain an update. This material is also only intended to provide general advice and does not constitute legal advice. You should make your own judgement about action you may need to take to ensure you have complied with your workplace health and safety obligations under the law.

