

Job Name: _____ Job Site Location: _____

Date: _____ Start Time: _____ Finish Time: _____ Foreman/Supervisor: _____

Topic 327: Glass Handling and Glazier Safety

Introduction: The handling of flat glass involves the risk of serious personal injury. Although the risk is higher in factories where flat glass is manufactured, serious accidents continue to happen on job-sites and workplaces where glass is subsequently handled and processed. This meeting highlights key factors to reduce the number and severity of accidents.

Hazards for Glaziers :

- **Falls from heights** while setting glass in windows, on walls, and in ceilings, etc., result in serious trauma and sometimes death.
- **Slips, trips, and falls** especially on wet, slippery, and greasy floors, while moving glass sheets.
- **Injuries caused by** falling objects during routine glass installation work.
- **Crushing under** the weight of a collapsed heavy glass sheet or pile of glass sheets.
- **Severe cuts** on hands and crushing of toes, caused by sharp edges of glass sheets during cutting, moving, setting, and other handling operations.
- **Eye and skin injuries** from glass splinters.
- **Cuts and stabs** caused by tools, such as chisels, glass-cutters, knives, etc.
- **Acute poisoning** and/or chemical burns as a result of using strong reactives (e.g. hydrofluoric acid) for etching glass and similar purposes.
- **Chronic poisoning** and/or skin disorders from exposure to lead (in repair work and from glass splinters containing lead) and other toxic elements.
- **Respiratory problems** caused by inhalation of rock wool, glass fibers, and isocyanate foam.
- **Fire risk** due to use of flammable materials.
- **Musculoskeletal injuries** due to awkward working postures and overexertion while carrying and otherwise handling bulky and heavy glass sheets.



Preventive Measures:

- **Inspect ladder before climbing.** Never climb on a shaky ladder or a ladder with slippery rungs. Use a three point climbing technique when climbing or descending ladders. Do not hand carry tools or material up or down ladders; use a tool belt or a sling to raise and lower loads.
- **Wear safety shoes** with non-skid soles.
- **Use metal-mesh** or other cut or stab-resistant gloves in all work with sharp edges, knives, or other sharp tools.
- **Wear appropriate respiratory** and eye/face protection equipment and chemical resistant gloves when working with hydrofluoric acid or other reactive or hazardous chemicals. Read MSDS for the specific chemical.
- **Wear appropriate eye protection** or a full face shield when handling glass.
- **Substitute flammable solvents** with less hazardous non-flammable solvents.
- **Protect hands** with chemical-resistant gloves. If impractical, use a barrier cream.
- **Wear a respirator** to avoid inhalation of dust while finishing glass edges.
- **Learn and use** safe lifting and moving techniques for heavy or awkward loads. Use teams, or mechanical aids to assist in lifting.

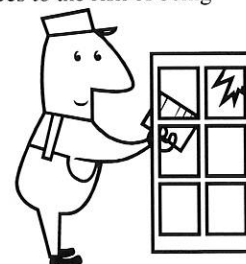


Safe Handling of Glass:

Racking: The angle of inclination of sheet glass in racks is critical. Bowing and breaking will occur if the angle of lean is too great from the vertical, but sheets will be unstable if the angle is too small. An angle of 3-5 degrees from the vertical appears to be the optimum; although racks tend to be designed for a lean of 5 degrees so that a loaded mechanical grab can approach at 3 degrees from the vertical. Mesh fencing or other barriers should be provided at the sides of racks to contain any glass that might suddenly break and fall out sideways during handling. Serious accidents have occurred through failure to provide such fencing. Where access is necessary, personnel must be able to gain clear exit from any area where glass might shatter. Access into the area between the glass and the side fencing must be prevented.

Vacuum Handling: Large sheets of glass are routinely handled using vacuum lifting frames. This process may expose employees to the risk of being struck by falling glass and the following safety guidelines should be observed:

- * Guide handles should be as far as possible from the glass or should be provided with protective screens.
- * A warning device should be provided to indicate loss of vacuum before the danger of the grip being lost.
- * The vacuum should be appropriate to the thickness of the glass. This is to avoid unnecessary deflections or possibly breakage of thin glass due to excessive vacuum suction.



Conclusion: During the manufacture and processing of flat glass, breakage and cuts from glass edges are easily foreseeable. However, clear, safe procedures for work are essential for **all** operations including the loading and securing of loads. Policies for adequate training, instruction, and supervision are key factors. Failure to provide such has led to many serious accidents.

Work Site Review

Work-Site Hazards and Safety Suggestions: _____

Personnel Safety Violations: _____

Employee Signatures:

(My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)

Cherry Hill Glass Foreman/Supervisor's Signature: _____

These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.