Ergonomics

Workers in the printing industry are exposed to material handling and repetitive motion. Material handling can be from raw materials such as rolled and sheet paper, finished product and product in production such as signatures. Repetitive motion can come from bindery and mailing operations.

- Engineer out material handling exposures where possible by purchasing automated equipment such as self-loading paper cutters and presses with paper lifts. Use Material Handling Aids such as hydraulic lifts in the bindery and at the paper cutters.

- Arrange pallets and materials to minimize twisting and bending

- Train Employees in Proper Lifting Techniques
  - Get help for heavy or awkward loads
  - Do not lift excessive stacks of paper or product
  - Get a firm comfortable grip on the load
  - Hold the load close to the body
  - Lift with the legs not the back
  - Avoid bending and twisting when lifting
  - Push, don’t pull the load

- Reduce repetitive motion exposures
  - Use job rotation
  - Have rest breaks for 15 minutes every 2 hours
  - Adjust the height and tilt of workstations to keep the wrist in a neutral position

- Have written ergonomic safety rules and ergonomic training
Machinery

A variety of machinery is used in the printing industry. Printing presses, paper cutters, bindery equipment and specialized equipment such as punching and embossing equipment are found. Exposures exist to both operators and maintenance personnel. Hazards exist at the point of operation, in-running nip point and transmission equipment. Equipment can jam or require cleaning or adjusting during production with exposes the operator to working near points of operation.

- Guard points of operation
- Guard transmission equipment
- Interlock movable guards for in-running rollers on presses so the guards must be in place when the press is operated in production mode. The guards should only be able to be removed when the press is in the jog mode for cleaning rollers
- Turn the corner of rags under or use a brush for cleaning in-running rollers to help prevent rags from being pulled into the in-running rollers during cleaning
- Use blade guards when working with or around cutting blades
- Shut down machinery before unjamming or cleaning or adjusting machinery
- Shut down and lockout machinery before performing maintenance on machinery. Each mechanic should put their own lock on the power disconnect.
- Machine operators should not be permitted to wear loose clothing or dangling jewelry, which could become entangled in machinery. Hair, which is below shoulder length, should be tied back.
- Safety rules should include lockout procedures and procedures for cleaning, unjamming and adjusting machinery. There should be written rules forbidding the bypassing and removal of machine guards and safety devices by employees other than maintenance personnel. A requirement that guards be replaced after being removed for maintenance should be included.

Remember
- If you drop it, pick it up.
- If you spill it, wipe it up.
- Go where you are looking and look where you are going.

Housekeeping

Housekeeping exposures can result in slip, trips and falls, struck by or against injuries and cuts. Oil and grease from machinery, water and ink leaks and spills and stock and product storage can all create exposures.

- Keep aisles clear
- Clean up spills immediately
- Report leaking equipment or plumbing
- Use oil absorbent material to soak up ink and oil
- Store razor and x-acto blades safely. Discard them properly.
Forklifts

Forklifts used to move raw materials and stock and to elevate personnel can cause serious injuries or death.

- Only designated, trained personnel should be permitted to operate the forklifts.
- The load to be transported should not exceed the rated capacity of the forklift.
- Employees should not be permitted to ride on the outside of the forklift. A safety platform must be used when elevating personnel.
- Forklifts should be operated at safe speed. The speed should be reduced when turning, traveling over an uneven surface or when visibility is obstructed.
- Forklifts should travel with the forks lowered.
- The operator should signal when going around corners, when backing or when visibility is obstructed.
- The forklift should be stopped, set in neutral and the brake engaged before dismounting. If on a slope, wheels should be chocked.
- Arms and legs should be kept inside the forklift when moving.
- Unstable loads should be stabilized before being lifted.
- Trailer wheels should be chocked when loading or unloading tractor-trailers with forklifts.
- Propane forklifts should not be operated in a confined area due to the production of toxic carbon monoxide gas.
- Forklifts used in areas where material is stored overhead must have overhead protection.

For more information and assistance in implementing your safety program, please contact your IWIF Loss Control Consultant at 1-800-264-IWIF.

IMPORTANT: This guide is advisory only. It may not list all hazards or conditions needing correction or deemed unsafe. Safety and health remain your responsibility. IWIF assumes no liability for identification or correction of conditions or hazards.

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