PERSONAL FALL ARREST AND FALL RESTRAINT SYSTEMS

It is important for you to understand the difference between a fall **arrest** system and fall **restraint** system. These are most commonly used in the construction industry, but may apply to many other situations where employees must work at heights.

FALL RESTRAINT: A fall restraint system consists of the equipment used to keep an employee from *reaching a fall point,* such as the edge of a roof or the edge of an elevated working surface. The most commonly utilized fall restraint system is a standard guardrail. A tie off system that "restrains" the employee from falling off an elevated working surface is another type of fall restraint.

FALL ARREST: According to the definition in the Federal OSHA standard, a personal fall arrest system means a system used to *arrest* an employee in a fall from a working level. It consists of an anchor point, connectors, or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. The entire system must be capable of withstanding the tremendous impact forces involved in *stopping* or arresting the fall. The forces increase with the fall distance due to acceleration (a person without protection will free fall 4 feet in 1/2 second and 16 feet in 1 second!).

Let's review 5 key requirements for fall **arrest systems:**

Body belts may not be used after 12/31/97, except for positioning purposes only.

The system must be rigged so that an employee can neither free-fall more than 6 feet nor contact a lower level. After the free-fall distance, the deceleration or shock absorbing component of the system must bring an employee to a complete stop within 3.5 additional feet**.**

The anchorage point must be capable of supporting at least 5000 pounds per employee. Most standard guardrail systems are not adequate anchorage points because they are not built to withstand the impact forces generated by a fall.

The system's D-ring attachment point for body harnesses shall be in the center of the employee's back near the shoulder level.

The system components must be inspected for damage and deterioration prior to each use. All components subjected to the impact loading forces of a free-fall must be immediately removed from service.