Safeguarding Shearing Machines

Because shears have a wide variety of applications, safeguarding methods must be determined individually for each machine based on its use. Here are some primary safeguarding options for protecting employees from the shear's point of operation during feeding activities at the front of the machine:

* Install a properly applied fixed or adjustable point of operation guard at the in-feed of the shearing machine to prevent operator contact with the shear's point of operation as well as the pinch point of the hold-down. The guard's design must prevent the employee from reaching under or around it.
* Install and arrange two-hand trips and controls so that the operator must use both hands to initiate the shear cycle. Two-hand trips and controls need to be designed so that they cannot be defeated easily.
* Use a properly applied presence-sensing device, such as a light curtain, on shears that are hydraulically powered or equipped with a part-revolution clutch.
* Mount guarded foot-pedal controls at a safe distance (single control safeguarding devices) away from the point of operation to protect the operator during the operating cycle.
* Use pull-backs or restraints for stand-alone manual shears when other guarding methods are not feasible or do not adequately protect employees. (These devices may not be appropriate if the job requires employees' mobility.)
* Use automatic-feeding devices such as conveyors with stand-alone manual shears when the material is uniform in size and shape.
* Use an adjustable table to create a safe distance for the worker using the shear.
* Equip mechanical shears with either a part-revolution or full-revolution clutch. Methods of safeguarding depend on the type of clutch in use. Shears equipped with full-revolution clutches used in single-stroke operations must be equipped with an anti-repeat feature.