

Entanglement Hazards

Machines and equipment can pose an entanglement hazard if they have:

- **Pinch points**, where two or more parts move together, and one of them is moving in a circle (pulley and belt systems, including conveyors, fall into this category).
- **Crush points**, where two components move toward each other, as happens in three-point hitches and hydraulic cylinders.
- **Wrap points**, created by exposed rotating components (lathes falls into this category, as do power take-off shafts, augers, mixer blades, and other rotating equipment).

Preventing Entanglements

Safeguards that can prevent these kinds of deadly accidents include:

- **Guarding.** Moving parts on machinery should be guarded to prevent any part of the worker's body from contacting the machine's moving parts.
- **Dress codes.** Workers should not wear loose-fitting clothing, chains, or other loose jewelry around equipment that poses an entanglement hazard. Long hair should be tied back to keep it safely out of danger. Hi-vis vests are becoming more common in our industry. Make sure they don't create a hazard around sorting tables and picking stations.
- **Safe work practices.** Workers should not work alone with potentially entangling machinery. Before performing adjustments or maintenance operations, qualified workers should shut down and lockout equipment.
- **Emergency shutoffs.** Workers who work with or around machinery should know where to find and how to operate emergency shutoffs. When a worker becomes entangled, a quick response may save a life.

Produced by the Institute of Scrap Recycling Industries

www.isri.org

www.isrisafety.org

Comments/questions?

isrisafety@isri.org

October 18, 2011

