

FEBRUARY SAFETY THEME: ROTATING EQUIPMENT AND PINCH POINTS

ROTATING EQUIPMENT

Rotating equipment is a mechanical hazard as the action of the moving parts can cause injury to people if they contact the equipment.

Rotating equipment can pull a person into equipment if just a small part of clothing, a lanyard or a hand tool, gets caught in the rotating component. Rotating equipment can also eject parts, debris, tools and off-cuts, at speed and often to a great distance.

Rotating equipment includes:

- drills
- fans
- grinders
- conveyors
- rotors
- rotating shafts.
- mills
- gears

PINCH POINTS

A Pinch Point is any point where it is possible for a person or part of a person's body to be caught between two objects, such as:

- moving parts of a machine
- moving and stationary parts of a machine
- moving parts and materials being processed or moved.

Common pinch points include:

- Equipment articulation areas
- Moving or rotating equipment parts
- Loads, load restraints and lifting gear
- Hand tools, e.g. pliers, vice, shifting spanner
- Doors, windows, drawers, lidded containers.

Pinch point injuries are one of the most common on-the-job incidents. Pinch point injuries usually involve fingers and hands, but they can impact any area of the body and can be fatal.

RISKS

The risks associated with rotating equipment and pinch points vary depending on the:

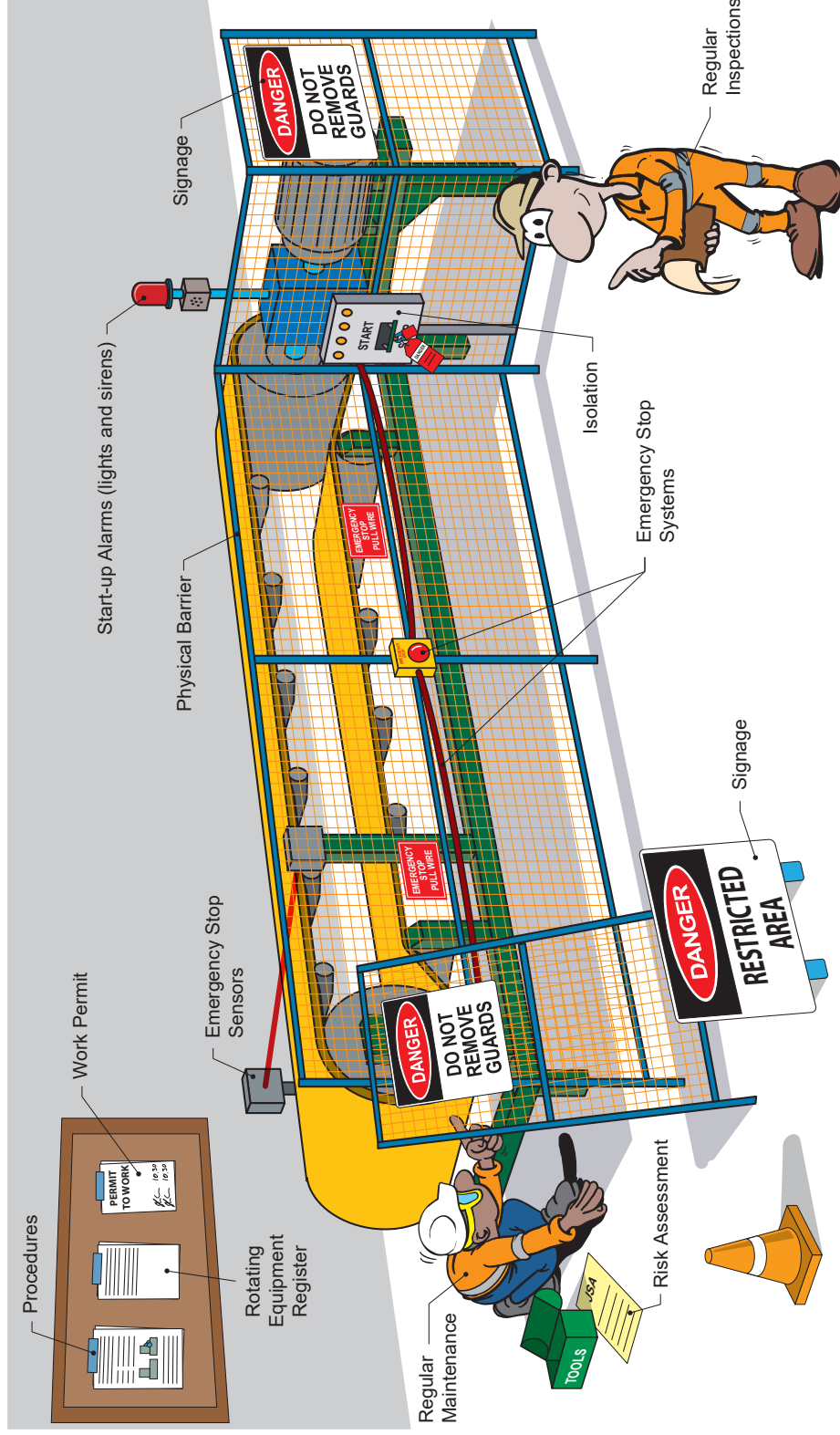
- Equipment involved
- Part of the body involved
- Location of the incident
- Timeliness and availability of first aid and/or trained medical help.

Be the **CONTROL** not the **HAZARD**

1. Identify all potential pinch points.
 2. Be trained and authorised.
 3. Follow procedures.
 4. Stay alert.
 5. Isolate the hazard (Lock Out, Tag Out).
 6. Separate people from the hazard using machine guards, barricades and signage.
 7. Never remove or tamper with machine guards unless you are authorised.
 8. Report damaged or missing guards immediately.
 9. Safety systems, e.g. signage, equipment start up alarm, reversing alarm/beeper.
 10. Regular inspection and maintenance of equipment and controls.
 11. Wear appropriate PPE, e.g. gloves.
- CAUTION: Make sure that PPE does not create more hazards, for example ill-fitting gloves can get caught in a machine.**
12. Do not wear jewellery or loose clothes and tie long hair back.
 13. Know what to do if an incident occurs (emergency response preparedness).



Be the CONTROL not the HAZARD!



Activity for the Month

1. Conduct an inspection around Rotating Equipment.
2. Complete the Checklist.
3. Complete the checklist online (InControl).
Rotating Equipment and Pinch Points Key Control Checklist available under Event Type Validation and Inspection (Plant Equipment or Machinery).
4. Complete follow up actions (if any) and close out report.
5. Discuss findings at Pre-start / Tool Box meetings.



Hazards

- Crush Injuries
- Caught in Machinery
- Equipment Damage



Systems

- General Awareness Training
- Formal Training
- Risk Assessments
- Emergency Response



Docs

- Rotating Equipment Check List
- Maintenance Procedures
- Isolation Procedure
- Permit to Work

OPERATOR

- Am I trained and competent to undertake the task assigned to me.
- Am I aware of the location of potential pinch points in the equipment I am operating?
- Have I isolated/locked pinch points to prevent movement during inspections and maintenance?
- Have I inspected machine guards and articulation locks in my pre-operational inspection (pre-start check)?
- Am I aware that no machine guard or guard around moving parts can be removed or tampered with unless under an approved procedure by an authorised person?
- Am I aware that missing or defective guarding must be immediately reported?
- Is an Authority to Work (work permit) required for the task? If so, have I read, understood and signed it?
- Do I know how to respond to an incident involving rotating equipment and/or pinch points?

SUPERVISORS / SUPERINTENDENT

- Are all persons fit, competent and authorised to operate assigned equipment?
- Is rotating equipment fitted with required safety devices (lights, sirens, start-up alarm)?
- Are pinch points clearly signed, or otherwise marked to draw the attention of the operator?
- Are physical barriers (machine guards, cages, barricades) in place to prevent access to rotating equipment and pinch points?
- Have pre-operational inspections been performed on equipment?
- Have procedures been provided for working with or near rotating equipment and potential pinch points, and are operators aware of the requirements?
- Has a risk assessment been completed for the task involving rotating equipment?
- Where the risk assessment indicates, has a Authority to Work (work permit) been developed and authorised?
- Have all relevant persons read, understood and signed the work permit?
- Have all relevant persons checked and attached their personal lock to the isolation points?
- At the end of the task, have all relevant persons removed their personal lock and signed off the work permit?

MANAGERS

- Are training systems in place to ensure competencies are achieved and maintained?
- Has a register of high risk rotating equipment been established?
- Are procedures in place and followed for specific high risk activities?
- Is a risk management / work permit process in place for high risk tasks?
- Does plant and equipment undergo regular inspections and maintenance according to required schedule?
- Are controls regularly inspected and maintained in compliance with site requirements?