

LTI reduction

Machine Protection – People

Note: « People » is a transversal topic



"Mr. Barnes is here again to speak about machine safety. Unfortunately, I missed his first speech."

Sub-topics related to « People »

From the accidents 2009-2011:

Matters about People categorized in 2 main areas...

Protected & Skilled

(be ready / technically speaking)

- checking availability of safe work procedures (“SWP”),
- checking training on safe work procedures,
- wear appropriate and undamaged PPE,
- have an appropriate “shape” (clothes, extended to hair, jewels...)

“Fit and able” & Mindset

(be ready / manage human factors and shared vigilance)

- manage distraction,
- manage stress, tiredness,
- manage self-confidence

checking availability of safe work procedures

- Accidents:
 - ../2009 – LCE – changing roll in roughing stand
- Production, operating on machinery including visit and housekeeping:
 - Have procedures and check-lists at the working station
 - Each operation needing the introduction of a part of the body inside a controlled or fenced area must be described in the procedures
 - Have reactivity for updating HIRA quickly (then procedures) according to findings on site (such as a product/process change, a missing step in the SWP...)
- Maintenance:
 - Have the maintenance procedures and check-lists at the work preparation office.
For « management »: based on constructors' documents + HIRA
 - Have them linked to work preparation and work authorization
 - Quick-Win: Duplicate check-lists, 1 ready for each work to perform. Have them back before closing (*for « management »: including safety checkings*)
 - Q-W: Have Guardings in the Preventive Maintenance Plan.
 - Have reactivity for updating HIRA quickly (then procedures) according to findings on site (a like product/process change)

checking training on safe work procedures

- Accidents:
 - ../2009 – FCE – mandrel operation, operator caught by belt wrapper
 - ../2010 – ...
 - ../2011 – ...
- Before any operation but daily ones, read the dedicated procedure.
- Daily operations: check if procedure has been updated.
- **Follow the procedure. Use safety pins and locks.**
Never shortcut.
- *For « Management »: have list of people with their actual competencies regarding SWP (and check contractors do the same)*
- *For « Machine »: have safety pins and/or locks at every 'entry point' used for operating.*
- Think before act implies formalize your preparation (if not written yet).
- Any doubt? Ask your manager. Avoid taking risks by shortcuts or inappropriate ways.
- **Q-W: There is no shame in applying procedures. Shame is on who takes shortcuts. Taking unnecessary risks for yourself and for others is anything but a demonstration of professionalism.**

wear appropriate and undamaged PPE

- Accidents:
 - ../.. – ...
- Check your PPE are OK before wearing them.
- Q-W: A mirror + sticker « checked? » inside the door of your personal PPE cabinet.
- Q-W for Managers: A mirror + sticker « checked? » you see at the exit of your office.

have an appropriate “shape”

- Accidents:
 - ../2009 – hand in rotating shear, taken by the glove
- Never wear any loose thing: clothes, jewels... (btw no ring)
- If you have long hair, have them tied, not free (unless you'd like being scalped)
- Q-W: a mirror + sticker « checked? » inside the door of your PPE cabinet.

manage distraction

- Accidents:
 - ../2009 – LCE – checking cutter head blades
- Avoid working alone, for shared vigilance.
- No personal mobile phone while in operation.
- Shut down professional phone during operation in machine (silent mode)
- No rush.
- Use check-lists.
- NO HORSEPLAY, BE PROFESSIONAL
- NEVER TAKE SAFETY FOR GRANTED

manage stress, tiredness

- Accidents:
 -/.. – ...
- Golden rule N#1.
- NEVER TAKE SHORT-CUTS.
- PAY ATTENTION
- BAN WORK IN AN UNSAFE MANNER

manage self-confidence

- Accidents:
 - 01/2012 – Removing a heavy cover, it falls and crush fingers
- You are not a superhero, even not a simple hero! DO NOT GAMBLE.
- « Think before act » implies « know your limits + control »
- Inform your manager / team leader about changes, and abnormal or deteriorated situations, before any attempt to operate. Assess risks.
- Q-W: have a « safety ruler » and use it (not your hand) to check openings.
- Accepting to change our own way is not easy, but it could be vital. Have an open mindset:
 - It's not because you have been used to practice unsafely for years that it will continue being safe for you
 - It's not because you took an unsafe shortcut 99 times without any incident that it will be OK this 100th time
- Q-W: Effective practice of the « Shared Vigilance » approach.
- Don't accept changes when decreasing the safety level. Ask for explanations about real improvement.

What Happens Once the Safeguarding is Complete?

Even the best machine guarding system will not be effective without employee approval. The machine operator needs to understand why the guarding was installed and how it will protect them from the inherent hazards. Our experience has taught us that when the workers are included in a machine safeguarding initiative, acceptance of the changes is much greater than cases when it is thrust upon them.

Therefore, machine specific training is an important part of any effort to provide safeguarding against machine-related hazards. Each machine operator should receive hands-on safety training that includes the following topics.

Identification of the hazards associated with a particular machine – This includes a review of the point of operation, the power transmission elements and power controls.

Introduction to the installed safeguards – How will the new guards, shields or process controls protect the operator from the identified hazards? What hazards have not been eliminated?

How to use the safeguards – How can the worker operate the machine while the guards are in place? How do the light curtains, interlocks or scanners control the machine functions? Can the machine be run at low speeds while the doors are open?

Who can remove the safeguards and the procedures that must be followed before this happens.

Is a lockout / tagout program required?

What to do if a safeguard is broken , lock, or doesn't work as advertised.

This kind of safety training is necessary for machine operators and maintenance or setup personnel, when any new or altered safeguards are put in service, or when workers are assigned to a new machine or operation.