Lockout Tagout Tryout (LTT)

Erwin Heijnsbroek
Royal Dutch Paper and Board Association
Outline

- Risks and consequences
- Lockout Tagout Tryout
- Impact on behavior
- Tips for implementation

Which sources of energy?

- Hydraulic
- Mechanical
- Electrical
- Pneumatic
- Thermal
- Chemical
- Gravity
How to work safely during cleaning or maintenance?

- Use a stop button or switch?
- Turn off the power?
- Pull the fuse(s)?
- Inform colleague(s)?
- Use the emergency stop?
- Activate a sensor?

Existing risks without LTT:

**Failure to:**
- Stop
- Disconnect power
- Bleed rest energy
- Clear areas before starting

Accidental restarting
Lock, Tag and Try all sources!

- Hydraulic
- Mechanical
- Electrical
- Pneumatic
- Thermal
- Chemical
- Gravity
LTT basics

- **Lockout**: use a padlock to block the switch or valve (isolating device)
- **Tagout**: place a warning tag to inform people about energy status
- **Tryout**: verify zero energy status

Decide what’s the safest way

- There is only one safest way
- Together with involved workers
- Explain LTT to all people involved

.. Using a written procedure
Three steps

1. Lockout
2. Tagout
3. Tryout

Zero energy state

Positive impact on behavior

- Protects employees (major hazards)
- Clear expectations (solutions)
- Visible system (real time)
- Increases safety awareness
Tips and tricks

- Involve operators, maintenance, contractors, in the preparations
- Start with a pilot area or machine
- Copy / paste solutions
- Scrap the spare keys
BACKUP SLIDES
Definitions

Lockout - act of isolating an energy source and physically locking the isolating device in the ‘off’ or ‘safe’ position.

Tagout - act of isolating an energy source and/or communicating a condition or situation.

Try or verify - act of testing the energy state and administrative controls to ensure zero energy state.
Layers of protection

- Organizational factors
- Unsafe supervision
- Preconditions for unsafe acts
- Unsafe acts

Failed or Absent Defences

Bron: Reason, 1990