SAFETY MEETING

# Lockout in Mills


presentation

OFSWA
Ontario Forestry Safe Workplace Association
*Partners on the Road to Zero*

# Introduction

- Types of energy in mills
- Safe operating procedure (SOP)
- Sample lockout procedure

# Types of energy

- There are two main types of energy in mills:
- potential
  - stored in raised weight, pneumatic or hydraulic systems
- kinetic
  - motion

# Potential energy

- Potential energy is stored energy
- Potential energy is stored in objects by the application of a force (examples: pressurized gas or hydraulic fluid)
- Block the compressed air or fluid between the pressure tank and the machine or device being worked on and release any pressure that remains by opening a pressure release valve to let the compressed air or fluid escape from the lines
- Wear appropriate personal protective equipment

# Kinetic energy

- Kinetic energy is motion energy – of waves, electrons, atoms, molecules, substances, and objects
- The two main types of kinetic energy in mills are:
  - Electrical
  - Thermal (heat)

# Electrical energy

- Electrical systems are complex and hazardous
- Electrical energy needs to be locked out and tagged at the source

# Thermal energy

- Heat is a form of energy that can be stored
- Some parts can be expected to be hot; but other parts may be heated because of a malfunction
- Wait until these areas cool down to a safe level

# Safe operating procedures

- Procedures for lockout and zero-energy state must be developed
- Must be followed every time
- Must follow Act and Regulations
- Everyone must be trained in the procedures

# Goal of lockout

1. Isolation of all energy sources and
2. Neutralization of all stored energy sources.

# Lockout

- Turn the controls off and lock them
- Turn the power supply off. Stand beside the box, put your hand on the on-off lever, turn your face away and pull down the lever to shut off the power. Then put a key-locking padlock on the box. Scissors must be used with multiple locks. Attach a tag.
- De-energize the system
- Test the controls to make sure no energy is in the system
- After the work is finished remove blocks, replace guards, pick up tools and inspect the area
- Remove your lock from the box
- Turn the power on and test and restart the machine

# Start-up

- *Only* the authorized person is to reverse lockout
- Ensure there are no others in danger zone

# Wrap up

- Be sure to follow proper lockout and zero-energy state procedures for each machine
- Lockout procedures create a zero-energy state – dealing with potential and kinetic energy
- Be aware of hydraulic, electrical, thermal energy when shutting down and lockout out a machine