
	Name :	Industrial Maintenance	
	SAFETY MEASURES		BTS MS

I – ANTICIPATION:



A) Look at the picture and identify the potential damage for the technician.

B) Look at the picture and identify the hazards (= dangers)


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C) Say what should be done by the employee to ensure the safety at work.

He should + V



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C) Say what should be done by the employees to ensure the safety at work.

He (they) should + V


II – ORAL COMPREHENSION

Watch the video “SAFETY IN THE INDUSTRY” (https://hubertfaigner.fr/safety-measures/fvp-21/#fvp_21) and answer the following questions.

1. Give the name of the program that guarantees the safety to employees.

2. Explain what you must do to maintain or service machine.

3. Quote keywords which correspond to the definition of this program:

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4. Put the following steps of the programme in chronological order:

STEP n°	ACTION
	Disconnect the power source
	Put a tag on the equipment
	Understand the energy, the hazards and the methods
	Turn off the equipment, use normal stopping procedures
	Notify the shutdown to affected employees
	Place a lock on all on-off switches and controls
	Sign your name and write the date
	Test to make sure the equipment is isolated

5. Now write what a technician of maintenance must do to guarantee the safety of himself and the other employees. Use **MUST** (obligation) **MUSTN'T** (interdiction) **SHOULD** (advice) to explain the steps in question 4.

"a technician MUST/MUSTN'T/ SHOULD...."

Safety in the industry

When it's time to maintain or service machines, equipment or infrastructure, **proper safety procedures require energy to be locked out** or otherwise controlled before work can begin.

The good news is that you hold the key to safety in your company: by using a lockout tagout energy control program, you can help prevent workplace accidents and injuries, both to yourself and to other workers. So what is lock out / tag out and when should you use it.

Lockout/tagout is a complete program used to control hazardous energy during the servicing or maintenance of machines and equipment when the unexpected startup of the equipment or the release of stored energy could cause injuries to employees. Service and maintenance includes the following activities: installation, replacement, modification, inspection, lubrication, cleaning and more.

Now let's take a look at some example lockout/ tagout practices. The procedures for shutdown and startup should be straightforward. When equipment must be shut down for maintenance and repair, make sure you understand the type and magnitude of the energy, the hazards to be controlled and the methods or means to control the energy before attempting to shut it down. After you prepare for the shutdown and announce the shutdown to all affected employees, turn off the equipment using normal stopping procedures then disconnect the power source or resources to isolate the equipment. In the case of electrically powered machines this means taking action at the disconnect or breaker that feeds the machine. Do not rely on just the push button or on/off switch. Always disconnect the energy source after turning the machine off. If you disconnect the machine under load you risk damaging the equipment take the time to make sure you have isolated the equipment from all energy sources. Many machines have more than one source of power. After you've turned off the equipment and isolated it from the power source, test to make sure the equipment is isolated by trying the on/off controls or using test instruments. Remember to leave these controls in the off or neutral position. The next step is to properly lockout machinery to ensure that energy is not restored while you are working on the equipment, locking out a machine involves more than just turning it off. A lock must be applied to all on-off switches and controls to physically prevent access to them use only your own lock to lock out the equipment you are working on and remember, locks used for lockout should be used only for lockouts. Don't use lockout locks on tool chests, lockers or cabinets use them only for lockouts. Then tagged out the equipment to provide a visual alert that work is being performed. Start by using a secure tie to place your tag of the disconnect point . Finish by signing your name and writing down the day to the type of work you are doing occasionally it is physically impossible to use a lot to lock out a piece of equipment in those cases it is absolutely essential to follow tagout procedures. That tag may be the only thing between you and serious injury. Keep in mind that no matter how good the tag is, a tag can never substitute for a lock it's a visual warning but it doesn't provide vital physical protection. These procedures may appear to be excessively cautious but when a life is on the line there is no point in taking chances.

Lockout Tagout Safety Training Video/ [PANDUIT Infrastructure for a Connected World](#) , 2010