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**Vaillant**

**Introduction to Lockout-Tagout (LOTO)—Voiceover Script**

***Note to VO Artist:***

* *All the pronunciation guidelines and notes are in red. For some of the terms, a link has been provided to the pronunciation.*
* *Please ensure that the voiceover is delivered with enthusiasm and engagement and is not flat and monotonous.*
* *Please ensure that there are no unnatural pauses, especially when voicing abbreviations and unfamiliar words. Although we are conveying a lot of important information, don’t take things too slowly: the content will be reinforced by text on screen, and learners can re-listen to the audio if they miss something. Let the punctuation be a guide but aim to use the same speed of delivery you’d use in a conversation or if you were speaking to a live audience.*
* *Please don’t read the text marked in purple.*
* *Voiceover text in Blue is for Dino (Male) and Text in Green is for Franziska (Female).*

**Slide 1.2**

Dino-

Welcome to the Introduction to Lockout and Tagout module. In this module, we'll introduce you to Lockout and Tagout, a vital safety standard that's essential for all Vaillant employees, not just maintenance technicians. This collaborative effort between our Group Plant Maintenance and Group Health and Safety ensures your safety.

**Slide 1.3**

Dino-

After completing this module, you will be able to:

* Explain the purpose and importance of Lockout and Tagout methodology,
* Explain how Lockout and Tagout effectively prevents unsafe actions,
* Describe four Levels of Safety Standards, and
* Explain the process of using Lockout and Tagout.

Please note that this training will not enable you to perform full Lockout and Tagout analysis.

**Slide 1.4\_1**

Dino-

Hi, my name is Dino, and I work in Group Plant Maintenance at Vaillant. Today, I'd like to introduce a new standard to you, known as Lockout and Tagout, or simply LOTO **[For VO Artist: Read as, a word- loto]**.

This standard is an instrumental method for enhancing our workplace safety, helping not only our maintenance technicians but all Vaillant employees.

To achieve this, we team up closely with our colleagues from the Health and Safety Department.

Meet Franziska! She coordinates the activities relating to health and safety within the Vaillant Group.

**Slide 1.4\_2**

Franziska-

Hello, Dino! Thank you for the introduction. At Vaillant, the health and safety of our employees is of utmost importance, and we do a lot to prevent accidents at work.

The increased automation of our production facilities in specific has made our systems increasingly complex and hazards are less obvious than before. This is one reason why we must implement Lockout and Tagout methodology and protective measures as a Vaillant group standard.

**Slide 1.5**

Dino-

Let's begin by gaining a clear understanding of what Lockout and Tagout mean. The Lockout and Tagout methodology are employed to guarantee the effective isolation of hazardous energy sources during maintenance, repair, or setup work to prevent accidents. It ensures that employees are protected from accidental energy release and that no hazardous situations occur while working on any machines.

To achieve this, four fundamental steps are essential: first, shut down the system; second, block the energy; third, clear the labelling on the system; and fourth, try out if the system is off and the energy is zero or not.

Select each step to learn more.

**Slide 1.5\_** **Shutdown**

The first step is to ensure that the machine or system is properly shut down and no power source is active.

**Slide 1.5\_** **Block the energy (Lockout)**

The next step is to block the energy, also known as 'Lockout'. This involves using mechanical or other physical devices to stop the energy supply to the machinery, effectively preventing any accidental power-ups.

**Slide 1.5\_** **Labelling (Tagout)**

The third step is to tagout. The tagout label usually includes the name of the employee who performed the procedure, the date, and other pertinent information.

This step is about attaching a clear, visible label, or warning sign to the shutdown machinery or equipment to inform other employees that it is not to be turned on or operated.

**Slide 1.5\_** **Test (Tryout)**

And finally, try out if the system is shut down and the energy is blocked.

**Slide 1.6**

Franziska-

Thank you, Dino, for shedding light on the significance of Lockout and Tagout.

Let's now examine how Lockout and Tagout works within the larger framework of safety regulations, focusing on electricity as one possible source of energy.

There are four levels of safety standards.

Level 4 is the lowest, and Level 1 is the highest.

Let’s learn about each level in detail.

Level 1, also known as LOTO or Lockout and Tagout, stands as the safest among the four levels. It involves interrupting the energy supply, effectively excluding unauthorized, erroneous, or unexpected start-ups.

At Level 2, it may be necessary to keep the machine running, for example, for troubleshooting purposes. In such cases, the available protective devices can be used.

These include guards, such as enclosures, covers, fencing or guards, protective devices that bind to a specific location, such as two-hand circuits, or protective devices with a proximity reaction, such as light curtains, light barriers, scanners, safety mats, safety edges or pendulum caps.

Level 3, on the other hand, involves employing additional safety devices when existing ones are insufficient, especially when it's not possible to work with the current protective devices.

The focus is on ensuring safety through additional devices, with a preference for those enabling switches.

Finally, Level 4 is involved in exceptional cases if the Levels 1, 2 and 3 cannot be implemented for technical reasons.

In such situations, personal and organizational measures must be taken.

The contractor must determine the necessary safety measures and ensure that they are complied with.

Not only in these cases. But in general, the Last-Minute Risk Assessment is very useful to get an overview of existing hazards and define a safe working procedure and environment.

Now that you're familiar with the four safety levels, let’s do a quick recap.

**Slide 1.7\_1**

Dino-

Great! Thanks for the insights on these four levels of safety standards, Franziska. Could you clarify who should be using the Lockout and Tagout methods?

**Slide 1.7\_2**

Franziska-

Well, it's quite simple, Dino.

It's for everybody who needs to work on a machine beyond regular operation. This may include activities relating to maintenance, repair work, as well as adjustments, and setup. You can find more detailed information in the procedure description specific to your plant or machine.

**Slide 1.7\_3**

Dino-

Thank you! Franziska.

**Slide 1.8\_1**

Dino-

I see. We've covered quite a bit about Lockout and Tagout. Now, can you walk us through how we implement LOTO?

**Slide 1.8\_2**

Franziska-

Sure Dino! Let's explore the process together.

Select each step to learn more.

**Slide 1.8\_** **Tab 1**

The Lockout and Tagout process begins with selecting the machine and clarifying responsibilities, followed by performing a thorough risk assessment and categorising machines based on the risk level within the ABC **[For VO Artist: Read as, A-B-C]** classification and their level of automation.

**Slide 1.8\_** **Tab 2**

As a next step, identify energy types and sources along with maintenance, health and safety, production, and manufacturer.

**Slide 1.8\_** **Tab 3**

Step 3 of the Lockout and Tagout Process involves specifying locations such as valves, circuit breakers, plugs, and levers, where energy can be effectively isolated.

**Slide 1.8\_** **Tab 4**

Step 4 involves marking energy points with related labels of energy types as part of the Lockout and Tagout Process.

**Slide 1.8\_** **Tab 5**

Within the Lockout and Tagout process, step 5 involves establishing clear procedures that include all the steps required for proper shutdown, thorough testing, executing necessary work, and safely restarting the equipment.

**Slide 1.8\_** **Tab 6**

Step 6 entails supplying locks, essential safety equipment, and a dedicated LOTO board to facilitate the Lockout and Tagout process.

**Slide 1.8\_** **Tab 7**

This step emphasises the importance of training your team on proper machine handling. This includes offering annual instructions, follow-up training, and induction for authorized or affected personnel. This extends to maintenance staff, operators, temporary workers, team leaders, and even external companies within the Lockout and Tagout process.

**Slide 1.8\_** **Tab 8**

This step emphasises the significance of regular reviews, especially when changes occur in the plant or relocations take place. Maintaining up-to-date Lockout and Tagout methodology ensures ongoing safety and compliance.

**Slide 1.9\_** **1**

Dino-

Franziska, a crucial part of Lockout and Tagout is effectively isolating energy during repairs and maintenance. Could you walk us through the energy types we encounter in our work?

**Slide 1.9\_** **2**

Franziska-

Absolutely, Dino. Let's dive into the various energy types we commonly encounter during our daily tasks.

These signs or icons will help us recognize each energy source.

**Slide 1.9\_** **3**

Dino-

And how does this safety standard assist us in isolating these energy sources?

**Slide 1.9\_** **4**

Franziska-

Well, during a Lockout and Tagout procedure, you'll find that each energy type has specific devices available for safe isolation and control.

Ultimately, it's all about ensuring safety while working with these various energy sources.

**Slide 1.10\_** **1**

Dino-

We have covered a substantial amount of information. Let's have a quick recap before we proceed.

So, we have defined Lockout and Tagout, understanding its core principles, identified who should use Lockout and Tagout, ensuring everyone's safety, explored the steps to prepare a machine for Lockout and Tagout implementation, Identified the various types of energy we encounter during our work, and discovered the array of devices at our disposal for effectively blocking and controlling these energies.

**Slide 1.10\_** **2**

Franziska-

One essential point remains, the locks themselves; let's explore the two types of locks in use.

First type is a 'Personal Lock for Employees' where one person will have one lock with just one key per lock.

Then, the second type is machine-related locks.

These cover multiple energy points, involve more than one lock per machine, and require only one key per lock.

**Slide 1.11**

Dino-

Finally, let’s understand how to use LOTO.

One energy point Lockout and Tagout is easy, where one person locks one point, or multiple people will lock one point.

On the other hand, multiple energy points Lockout and Tagout allow one person to lock at multiple points in addition to multiple people locking multiple points.

**Slide 1.12**

Dino-

Before we end this module, let’s pause to check your understanding of the content covered.

**Slide 1.13**

Dino-

Here’s another quick question.

**Slide 1.14**

Dino-

Here’s the last question for you.

**Slide 1.15**

Dino-

Congratulations! You have completed this module on Introduction to Lockout and Tagout.