



LOCKOUT



TAGOUT



TRYOUT

LOTOTO is a safety procedure that ensures hazardous machinery and energy sources are properly isolated and cannot be re-energised unexpectedly during maintenance or repair work.

138

workers killed in work-related accidents in 2023/24.

www.hse.gov.uk/statistics

The recent addition of 'Tryout' is an additional step of trying out the equipment after lockout tagout to ensure the machines does not operate. This provides an additional layer of operator verification prior to works commencing.



IN THE KNOW

LOTOTO adopted the term LOTOTO following a major accident where lives were lost due to faulty controls. Lockout Tagout procedures were adhered to, however as the 'Try Out' was not followed a faulty control switch restarted the machinery and fatally injured the operators. From this, the best practice procedure is to now follow the Lockout – Tagout – Tryout format, which ensures once the Lockout is fitted any faults, stored energy and/or incorrectly applied Lockout are highlighted and rectified with a final 'Try Out' test to ensure it is safe to commence work.

LOTOTO is now being recognised as best practice for safety management in quarries, oil & gas, heavy manufacturing, food processing plants and more. Sectors such as renewable energy, waste and large retail companies are beginning to apply company-wide procedures utilising LOTOTO to ensure employee and operative safety with a structured and controlled procedural method.

**COMPLIANCE WITH THE LOCKOUT/TAGOUT STANDARD PREVENTS AN ESTIMATED
120 FATALITIES AND 50,000 INJURIES EACH YEAR.**

WHY YOU SHOULD CHOOSE US?

- ✓ UK COMPANY
- ✓ SITE SURVEYS
- ✓ FAST DELIVERY
- ✓ BESPOKE CUSTOMER BROCHURES
- ✓ DEDICATED ACCOUNT MANAGER
- ✓ TECHNICAL SUPPORT AND ADVICE
- ✓ EXPERTS IN LOCKOUT TAGOUT
- ✓ COMMITTED TO CSR
- ✓ BESPOKE DESIGN AND MANUFACTURING
- ✓ ISO ACCREDITED



INDUSTRIES WE SERVE



Oil & Gas



Utilities



Construction



Warehouse
& Logistics



Manufacturing



Public Sector



Agriculture



Food Services

 **Site Surveys**
by **Spectrum Services**

OUR TEAM OF EXPERTS ARE ON HAND TO OFFER A SITE SURVEY FOR SAFETY SIGNAGE AND MACHINERY / EQUIPMENT LOCK OUT SAFETY.

 **Custom Design**
by **Spectrum Services**

OUR SIGN MANUFACTURING TEAM HAVE MANY YEARS OF EXPERIENCE DESIGNING, PRODUCING AND INSTALLING SIGNAGE.

 **Training**
by **Spectrum Services**

OUR EXPERIENCED TEAM IS ON HAND TO DELIVER TRAINING ACROSS THE FULL BREADTH OF OUR RANGE.

DANGER
LOCKED OUT
DO NOT REMOVE



Caution

This equipment has been locked out



LOCKOUT - TAGOUT PROCESS

1. IDENTIFY THE TYPES OF ENERGY SOURCES USED, POTENTIAL HAZARDS, AND ALL CONTROL DEVICES.



3. TURN OFF ALL OPERATING CONTROLS



5. LOCKOUT ALL SWITCHES AND ENERGY CONTROLS IN THE "OFF" OR "SAFE" POSITION



7. ENSURE THAT ANY DISSIPATED ENERGY IS SAFELY RELIEVED AND CAN NOT RE-ACCUMULATE.



9. COMPLETE ALL TASKS, ENSURE VIGILANT OBSERVATION IS CONTINUED.



2. NOTIFY ALL AFFECTED EMPLOYEES



4. ISOLATE ALL ENERGY SOURCES



6. TAGS ARE TO BE APPLIED IN ALL CASES WHERE A LOCK IS PRESENT.



8. TEST THE OPERATING CONTROLS. BE SURE NOBODY CAN GET HURT BEFORE TESTING



10. RESTART EQUIPMENT.

STEP 1: PREPARATION



DEVELOP AN IMPLEMENTATION PLAN DETAILING ALL THE PROCESSES REQUIRED FOR A SUCCESSFUL ISOLATION.



Identify all the responsibilities of all persons involved.



Identify the sources of energy and their isolation points.



Identify the LOTO equipment needed to complete the isolation safely.



Ensure all persons are competent with their expected responsibilities.



An authorised person should be assigned to control project.



Make sure all relevant permits are completed.

STEP 2: NOTIFY



ALL AFFECTED PERSONS TO BE MADE AWARE OF THE ISOLATION



The usual operators of
the of the equipment.



Any persons which
may be affected by the
isolation, including
visitors, contractors or
downstream operatives.



Other operators in the
immediate area.

Point to remember:

Throughout the procedure, ensure vigilant observation is continued. If any faults, stored energy movements or inadequate isolations are noticed please inform the authorised person in charge.

STEP 3: TURNOFF



SAFELY TURN OFF THE EQUIPMENT



Turn off the equipment in a safe manner following standard company procedure.



Ensure all involved machinery is properly de-energised ready for isolation.

STEP 4: ISOLATE



ISOLATE ALL ENERGY SOURCES



Isolate all energy sources as defined in the prepared procedure.



Any "potential" energy sources should be isolated safe.



Isolate any upstream physical barriers that may pose a risk to the isolation procedure. (eg. access doors, feed conveyor gates, interlock doors)



In ALL cases, isolation controls must be used to de-energise the equipment. The equipment "ON/OFF" controls and the Emergency stop buttons should NOT be used as an isolation method.

STEP 5: LOCKOUT EQUIPMENT APPLICATION



APPLICATION OF THE PHYSICAL LOTO EQUIPMENT



Securely apply the relevant LOTO equipment to the correct isolation points as detailed in the plan.



Apply a safety lock onto the equipment. It is recommended that a hasp is used on all isolation points to allow for further padlocks to be added should they be required.



Remember all persons involved should have their own company issued personal padlock for the task, as detailed by the isolation procedure.



If physical equipment isolation of the energy source is not available, this hazard **MUST** be managed using alternative methods. This eventuality should be covered in the LOTO company procedure. (see Step 1)



On issuing padlocks please consider any contractors involved. Although they may have their own LOTO padlocks it is recommended they use company issued padlocks to guarantee unique key numbers.

STEP 6: TAG APPLICATION



APPLICATION OF THE LOCKOUT TAG



Tags are to be applied in all cases where a lock is present.



Tags are used to provide a visual deterrent and information not to use the equipment. They can also provide extra information about the lockout operator, expected duration and contact details.



On some occasions appropriate LOTO equipment cannot be fitted safety to effectively isolate all potential risks. On these occasions Tags can be used to reinforce the safety message, but the risk must be managed via an alternate method.

Examples of energy sources / issues which may need to be risk managed separately.

1. Pneumatic air lines – most cannot be adequately locked out.
2. Bleeding lines in and out.
3. Doors into a room where isolation is taking place.
4. None standard equipment (must be recorded and discussed).
5. Tags are as important as an applied lock.

STEP 7: CONFIRM ZERO ENERGY



THE PROCESS OF ENSURING ALL ENERGY SOURCES, STATES AND STORED ENERGY IS RELIEVED.



Ensure that any dissipated energy is safely relieved and can not re-accumulate.



If a danger still presents itself in the form of stored energy then adequate restraints should be employed to prevent movement.



Be cautious of hazards that may affect safety of their own accord, for example, loaded conveyors or ambient temperatures.

STEP 8: TRYOUT



FINAL TEST BEFORE TASK COMMENCEMENT



This is the final test before the equipment is released to be worked upon.



As we are still in a controlled situation, should the equipment restart then persons will not be at risk.



This step is a check that all the LOTO equipment is correctly fitted and effective, in a controlled safe manner.

Once tested:

If the equipment does not energise and the authorised person is confident that the LOTO procedure has been performed correctly then the task is completed, the work permit can be signed off and work can commence.



All persons should retreat to a safe distance before the Tryout.

If the equipment restarts or has faults a full report should commence. An investigation into the near miss and a plan to resolve the issue should follow. Once a safe working environment has been achieved and signed off, re-address the permit and start LOTOTO procedure from Step 1.

STEP 9: COMPLETION



THROUGHOUT THE TASK, ENSURE VIGILANT OBSERVATION IS CONTINUED. IF ANY FAULTS, STORED ENERGY MOVEMENTS AND/OR INADEQUATE ISOLATIONS ARE NOTICED:



Immediately stop the task and withdraw.



Report and Investigate in full.



If in any doubt of safety whilst on the task, withdraw and address before continuing.

STEP 10: RE-ENERGISE



WHEN THE WORK IS COMPLETED, RE-ENERGISE SAFETY

WHEN RE-ENERGISING ENSURE THE CORRECT PROCEDURE IS FOLLOWED AS DETAILED IN THE EQUIPMENT SPECIFICATION. PAY ATTENTION TO THE FOLLOWING:

INSPECT THE EQUIPMENT TO BE SURE THAT:

- A. All tools, materials and lockout equipment are removed.
- B. The machine is FULLY reassembled.
- C. Guards & other safety devices are reinstalled.

NOTIFY

- A. All employees are accounted for & safety positioned.
- B. All affected employees are notified of the restart.

REMEMBER

- A. Only remove your own lock.
- B. Inform the authorised person of any issues.
- C. A final check should be performed by the authorised person before job is signed off.



Be responsible for your own lock, tag and safety. Do not remove anyone else's lock.



Notify all involved members that equipment is being restored.



Restart equipment. If restart is unsuccessful, re-apply Lockout equipment and investigate.



Follow procedure to complete paperwork, permit and registers.

THE PRODUCTS

SAFETY PADLOCKS

Compact high security padlocks are individually keyed to differ with a 6-pin lock mechanism which will not release the key until the shackle is closed.



HASPS

When more than one padlock needs to be fitted to an isolation point a hasp can be fitted to expand the number of Lockout points available.



VALVE LOCKOUT

One of the most commonly used devices in a mechanical lockout procedure. Designed to fit on or around the valve, preventing access or the movement of the valve.



MCB LOCKOUTS

These MCB lockout devices come in many variations to ensure the right fit on every Circuit Breaker. Allowing you to isolate the electrical circuit which powers the equipment.



TAGS

These highly visible warning tags should be applied alongside a Lockout device to provide details of the Lockout procedure.



KITS

Our pre-selected kits are designed to cover most common needs. Ideal for keeping essential lockout equipment in one convenient place.



AN EXPERT AUDIT IS RECOMMENDED WHEN REVIEWING A SAFETY PROCEDURE TO ESTABLISH CORRECT, EFFICIENT AND SAFE PRACTICE.

SELF AUDIT TOOL

Spectrum Industrial have created this self-assessment checklist to highlight and raise awareness on Lockout Tagout Tryout.



REQUEST A SITE SURVEY

Scan here to complete your survey request form.

The survey is not agreed or confirmed until stated separately.



IN THE KNOW

It is recommended that any individual on the task, applies their own lock to the isolation point or the group lock box in use on the project. To be able to attach a lock to the isolation point, we use a hasp which allows more than one lock to be applied to a single source. However, in many cases, a group lock box would be used to house the control key and locks would be applied to this, providing the same solution.

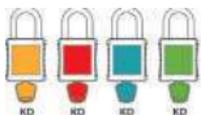


KEY SYSTEMS & USAGE

THE CORRECT KEYING SYSTEM FOR YOUR SITE WILL BE DICTATED BY LOTOTO PROCEDURES

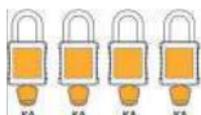
There are varying options:

Only ever supplied with one key per lock



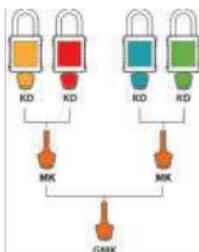
KEYED DIFFERENT (KD)

Each padlock can only be opened using a single unique key.



KEYED ALIKE (KA)

All padlocks in a Keyed Alike team have their own key. That same key can open any padlock within the same team.



MASTER KEYED (MK) & GRAND MASTER KEYED (GMK)

The padlocks in this system each have their own unique key, which can only open the corresponding padlock. The Master Key for this team can open any of the padlocks within its own team. This can be further extended over multiple teams, with a Grand Master Key able to open any padlock within any team.

SAFETY PADLOCKS AND KEY TAGS CAN BE COLOUR CODED & KEYS TO YOUR SPECIFIED LOTOTO PROGRAM



IN THE KNOW

In very general terms there are two main types of lockout tagout methods, Simple or Complex. A Simple isolation utilises one user with one single padlock. A Complex isolation covers isolations which have more than one user, more than one padlock, span over multiple shifts (or any combination of the above!) Regardless of the type all LOTO procedures should be fully planned and comprehensively documented.

LOCKOUT STATIONS

Perfect for complex isolations Lockout Stations provide a storage solution for your Lockout equipment when not in use. A Lockout Station should be located wherever it is deemed most appropriate for its desired purpose. This could be next to the equipment to be locked out, in a maintenance department or a central location.

INDIVIDUALLY TITLED STATIONS

EASY IDENTIFICATION OF MISSING OR IN-USE PRODUCTS

CUSTOMISE WITH YOUR COMPANY LOGO

INCLUDE DOCUMENT HOLDERS FOR ALL PAPERWORK

BESPOKE DESIGNS AVAILABLE

Simply tell us what components are required and we will build the board to your specifications.

LOCKOUT, TAGOUT, TRYOUT, **ALLOWS EVERY INDIVIDUAL TO GUARANTEE THEIR OWN SAFETY**

**VIEW DIGITAL
VERSION HERE**



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