
	SOP-646 (Ver. 2) Out of Service Equipment
Standard Operating Procedure (SOP)	Effective: 1/25/2022 Supersedes: 11/02/2020
Approved By: James D. Herberg General Manager 	

I. Purpose

This procedure establishes the standard work practices for identifying, marking and managing out of service equipment. This procedure was developed to prevent unauthorized use or access to such equipment or areas that are not part of a lock-out/tag-out.

This procedure was established to control equipment that is out of service for extended periods of time, tagged out for operational needs, or for equipment that will be abandoned or removed soon.

II. Definitions

Abandoned Equipment: This is any equipment that has been permanently removed from operational service. This equipment will be demolished as part of a future project. This equipment is not expected to be returned to its original operational use.

Energy-Isolating Device (EID): A device that physically prevents the transmission or release of energy. An EID is capable of being locked out if it has a built-in locking mechanism, or has a means of attachment to which, or through which, a locking mechanism can be affixed.

Energy Source: Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or gravity energy; including residual or stored energy of any type.

HASP: a steel lockout HASP that accepts up to 6 padlocks, allowing multiple locks to be applied on the same lockout point.

Idled Equipment: Any equipment that has been taken out of service for an undetermined length of time. This equipment is expected to be returned to operational service at some future time. Idled equipment may be serviced or maintained by District staff or Contractors, but only if the requirements of the District's SAFETY-SOP-605 Control of Hazardous Energy Program are administered and maintained.

Tagout Device: A prominent warning device that is fastened at an energy-isolation device to warn employees not to energize the equipment.

III. Procedure

A. Abandoned Equipment

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1. The operating/owning department shall ensure that equipment to be abandoned-in-place has been properly shut down in accordance with this standard, as well as operations and maintenance manuals/SOPs.
2. At a minimum an Out of Service tag needs to be placed on abandoned equipment. Installation of locks with a tagout device is optional. Installation and removal are restricted to the operating/owning department that applied the tag, or lock and tagout equipment.
3. Liquids, solids and/or chemicals shall be drained, flushed or otherwise cleaned from tanks and piping to the greatest extent possible. The equipment and piping must be appropriately vented where needed.
4. Electrical feeds shall be physically disconnected and separated from the affected equipment where deemed appropriate.
5. Attempts should be made to physically separate upstream and downstream piping. Physical separation may include removal of pipe sections or valves and installation of plugs, caps, blind flanges, etc. Controls shall be placed in the off or safe position.
6. Energy control procedures developed under the Control of Hazardous Energy Program (SOP-605) can be used to facilitate the out of service isolation, including the placement of locks and tags.
7. Opening or closing of electrical circuits must be performed in accordance with the Electrical Safety Program (SOP-205).
8. Each operating/owning department is responsible for securing the equipment to ensure that all energy sources have been isolated and that energy sources are dissipated.
 - a. In addition to isolating equipment from normal electrical power sources, additional precautions may be necessary to isolate the process, utility feed, emergency electrical, and/or discharge lines to properly secure the equipment.
 - b. Care must be taken to ensure that residual or stored energy sources (for example: springs, elevated moveable components, rotating wheels, hydraulic and pneumatic systems) are reduced to their zero mechanical/energy level.
9. The operating/owning department responsible for securing the equipment will try to activate the operational switches to verify the circuit and equipment are de-energized and in a safe position.
10. The operating/owning department responsible for securing the equipment will place Out of Service lock and tags on the equipment energy isolating devices. Out of Service locks and tags must comply with Section III(C) of this procedure.

B. Idled Equipment

1. At a minimum, the operating/owning department shall de-energize idled equipment. The operating/owning department shall determine if other isolations are required (i.e. closing influent gate, open drain valve). Opening or closing of electrical circuits must be performed in accordance with the Electrical Safety Program (SOP-205).

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2. At a minimum an Out of Service tag needs to be placed on idled equipment. Installation of locks with a tagout device is optional. Installation and removal are restricted to the operating/owning department that applied the tag, or lock and tagout equipment.
3. The operating/owning department responsible for securing the equipment will place Out of Service lock or tags on the equipment energy isolating devices. Out of Service locks and tags must comply with Section III(C) of this procedure. Locks will only be placed on equipment as deemed necessary by the operating/owning department.
4. If servicing and maintenance activities are performed on idled equipment, the requirements of the Control of Hazardous Energy Program (SOP-605) must also be implemented and maintained. Out of Service locks and tags do not replace the requirement for locks and tags and energy isolation devices required by SOP-605. Out of Service locks and tags shall be applied directly at the energy-isolating device. To allow for placement of both the Out of Service locks and tags and LOTO locks and tags on an energy-isolating device, a HASP can be used at the energy-isolating device.
5. Before the idled equipment is returned to service, the following shall be performed by the operating/owning department:
 - a. Ensure that machine or equipment components are operationally intact, including guards and covers.
 - b. All employees have been safely positioned or removed from the work area.
 - c. Verify that all operating controls are in the safe position.
 - d. Servicing and maintenance work, if applicable, is complete and that all LOTO locks and tags have been removed.
 - e. Opening or closing of electrical circuits must be performed in accordance with the Electrical Safety Program (SOP-205).

C. Out of Service Tags or Locks with Tags

1. Out of Service locks shall be different from those used for Control of Hazardous Energy.
2. Where servicing or maintenance is performed on idled equipment, the Control of Hazardous Energy program shall be implemented and maintained.
3. Cable tie wraps shall be used to secure the tags to equipment or affixed directly onto the lock.
4. Out of Service tags shall be provided with employee name, division number, date, and a statement as to why equipment is not to be operated.
5. The Out of Service tags or locks must only be removed by the person/department responsible for placing the tags or locks.
6. Special instructions covering operation of equipment is to be noted on reverse side of the tag.

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- 7. Tags or Locks are to be removed as soon as the special conditions relating to their use no longer apply.
- 8. Master keys for out of service locks will be provided to the operating/owning department supervisor or manager.

IV. Training

Personnel who are assigned responsibility for placing equipment in or out of service must understand the requirements of this procedure prior to starting any tasks associated with out of service equipment and must be able to distinguish between equipment that needs to be placed out of service and equipment that required maintenance which falls under LO/TO.

Contractors whose work activities may involve or be affected by an out of service of equipment/process will be informed of this procedure on a case-by-case basis. If applicable, each contractor is responsible to train their employees in the application of this procedure to their assigned work.

V. Recordkeeping

All records created or generated in the course of this procedure shall be legible and stored in a way that they are readily retrievable in facilities or electronic document/content management systems that provide a suitable environment to prevent damage, deterioration, or loss. Records may be in the form of any type of media, such as hard copy or electronic media. The OC San Records Retention Schedule is the official procedure governing the retention, retirement, and destruction of District records. Document owners should use these schedules to determine the item and series that best fit their records. Document owners are responsible for ensuring that documents are properly marked, indexed, and filed for their projects or area of responsibility.

VI. Revision History

Version	Date	By	Reason
1.0	11/02/2020	Frattali, John	New
2.0	12/13/2021	Hachim, Sabrina	Annual Program Review – Refer to Program Change Log