	SAFETY MANAGEMENT PROGRAM		Date Issued:	December 2015
			Date Revised:	December 2015
	Section:	ELECTRICAL		
	Module:	HAZARDOUS ENERGY CONTROL LOCK OUT PROGRAM		

1.0 STRATEGY

It is a policy of SIGA to implement and maintain a Hazardous Energy Control Lockout Program. Inadvertent machinery movement or electric shock while employees are servicing a machine, equipment or during a process may cause a serious and even fatal accident or injury. This program is designed to prevent injury to personnel caused by the inadvertent release of energy.

2.0 DEFINITIONS

Affected Employee

A person whose job requires him or her to operate or use a machine, a piece of equipment, or process on which servicing or maintenance is being performed under lockout.

Authorized Employee

A person who locks out machines, equipment, or processes to service or perform maintenance on the machines, equipment or processes.



Capable of Being Locked Out

An energy-isolating device that is designed with a hasp or other means of attachment to which, or through which, a lock can be affixed or, if it has a locking mechanism, built into it. Other energy-isolating devices are also considered capable of being locked out if lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.

Energy-Isolating Device

A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following:

- a manually operated circuit breaker;
- a disconnect switch;
- a line valve;
- a ball valve;
- a block;
- a blank; and
- any similar device used to block or isolate energy.

 	SAFETY MANAGEMENT PROGRAM		Date Issued:	December 2015
			Date Revised:	December 2015
	Section:	ELECTRICAL		
	Module:	HAZARDOUS ENERGY CONTROL LOCK OUT PROGRAM		

A manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and no pole can be operated independent.

Hazardous Energy

Any electrical, mechanical, hydraulic, pneumatic, chemical, nuclear, thermal, gravitational, or other energy that can harm employees.

Information Tag

A warning tag or other device, and its means of attachment, used to warn employees of an existing or potential hazard. In addition to the warning, its wording also identifies who applied the tag. It is used in conjunction with the application of a lockout device to an energy-isolating device.

Lockout



The placement of a lock or tag on an energy-isolating device In accordance with an established procedure, thereby indicating that the energy-isolating device is not to be operated until removal of the lock or tag in accordance with an established procedure.

Lockout Device

A mechanical means of locking that uses an individually keyed lock to secure an energy-isolating device in a position that prevents energization of a machine, equipment, or a process.

Trade Lock

A special lock identified different than a personal lock, to be installed at shift change by the first (1st) electrician or the second (2nd) Electrician. This lock is to be installed if the departing employee leaves the facility prior to the incoming employee arriving. It is not to be used for personal protection.

 	SAFETY MANAGEMENT PROGRAM		Date Issued:	December 2015
			Date Revised:	December 2015
	Section:	ELECTRICAL		
	Module:	HAZARDOUS ENERGY CONTROL LOCK OUT PROGRAM		

3.0 OBJECTIVES

The objectives are to prevent inadvertent operation or energization of a machine, equipment or process. Included, but not limited to:



- electrical;
- mechanical;
- hydraulic;
- pneumatic;
- chemical;
- radiation;
- thermal; and
- compressed air energy sources, energy stored in springs, and potential energy from suspended parts (gravity).

This program establishes guidelines according to regulatory standards and CSA Z460 for an effective Hazardous Energy Control – Lockout Program to protect employees, contractors to SIGA and patrons of SIGA.

4.0 SCOPE

The Hazardous Energy Control Lockout Program applies to all SIGA employees and contractors working on machines, equipment or processes where the unexpected start up or release of energy could cause injury at any of SIGA’s locations. This policy applies to activities such as, but not limited to:

- Erecting;
- Constructing;
- Repairing;
- Adjusting;
- Inspecting;
- Cleaning;
- Operating; and
- Maintaining the machines, equipment, and processes.

 	SAFETY MANAGEMENT PROGRAM		Date Issued:	December 2015
			Date Revised:	December 2015
	Section:	ELECTRICAL		
	Module:	HAZARDOUS ENERGY CONTROL LOCK OUT PROGRAM		

5.0 RESPONSIBILITIES

The following responsibilities shall apply:

1. Management is to be responsible for implementing, and administering an effective Lockout system
2. All employees are to be responsible for complying with the provisions of the facility lockout system.
3. Only authorized employees are to operate energy-isolating devices and place locks and tags on controls to prevent unexpected start-ups.

6.0 MINOR SERVICING TASKS AND TROUBLESHOOTING

Employees performing minor tasks, such as adjustments, and other minor servicing tasks are not covered by the Hazardous Energy Control-Lockout Program.


If the employee must either remove or bypass machine guards or other safety devices or place their body where it could be caught or trapped by moving machinery, the equipment must be de-energized, isolated and locks and tags must be applied to the energy isolating devices.

This Hazardous Energy Control-Lockout Program does not apply to electrical testing, troubleshooting or work performed above 750 volts.

7.0 LOCKOUT DEVICES AND ASSOCIATED HARDWARE

Every employee and/or person in charge must place his/her own padlock on the appropriate switch or valve. The only positive method of protecting employees from the hazards associated with inadvertent starting of machines, equipment or processes, is to lock the controls in the **"OFF"** position, and to have a separate single keyed lock for each person.

1. Each employee will be provided with a padlock, numbered to properly identify it as his/her property.
2. One key only for each padlock shall exist. The key will be in the possession of the employee who is responsible for it.

	SAFETY MANAGEMENT PROGRAM		Date Issued:	December 2015
			Date Revised:	December 2015
	Section:	ELECTRICAL		
	Module:	HAZARDOUS ENERGY CONTROL LOCK OUT PROGRAM		

3. The owner of the designated lock is the only person permitted to remove the lock from an energy-isolating device.
4. Only fiberglass non-conducting ladders may be used when performing any type of work related to the Hazardous Energy Control Lockout Policy and Program.

7.1 information tags

Shall be placed on all energy-isolating devices. Each employee that locks out or renders a piece of machinery or equipment inoperable, is responsible to record three pieces of information on the information tag:



- Date of tag lockout;
- Reason for the lockout; and
- Name of employee who de-energized and locked out the equipment.

ANY TIME A LOCK OR TAG IS PLACED ON A PIECE OF EQUIPMENT OR MACHINERY, IT MUST BE LOGGED IN THE LOCKOUT LOG LOCATED AT THE SECURITY DESK (CASINO) OR OFFICE MANAGER (CENTRAL OFFICE).

8.0 INDIVIDUAL LOCKOUT

1. When a task requires the services of more than one employee, each person isolating and de-energizing the equipment, machine or process must have their own lock on the system [Thus the use of a multiple locking device (hasp)]; The key to the lock is to be retained by the owner.
2. An information tag shall be attached to each lock.
3. All employees who have applied a lock must verify that the machine, equipment or processes involved are de-energized before commencing work.
4. The Facilities Manager or in their absence of the Facilities Supervisor will apply a Trade Lock to any machine, equipment, or process where two or more individual locks are used. Only the Facilities Manager or in their absence (1st) the Facilities Supervisor or (2nd) Electrician will have a key to the Trade Lock.

The Facilities Manager (Electrician-Central Office) or in their absence the Manager on Duty (Property Manager – Central Office) may apply a Trade Lock in addition to any other locks, at any time, and they must tag and document the purpose of the application.

 	SAFETY MANAGEMENT PROGRAM		Date Issued:	December 2015
			Date Revised:	December 2015
	Section:	ELECTRICAL		
	Module:	HAZARDOUS ENERGY CONTROL LOCK OUT PROGRAM		

9.0 SHIFT CHANGEOVER

If the work is not completed at the end of the shift, the status of the job is to be reported to the Facilities Manager, at which time the departing employee will remove their lock and it will be replaced with a Trade Lock. The Trade Lock will be installed by the Facilities Manager (Electrician – Central Office) or in their absence the Manager on Duty (Property Manager – Central Office). At no time shall the equipment, machine or process be left unlocked, until all work is completed.

The Trade Lock will be removed by the Facilities Manager (Electrician – Central Office) or in their absence Manager on Duty (Property Manager – Central Office) when the incoming employee starts their shift and places their personal lock on.

10.0 ELEMENTS OF ENERGY CONTROL

1. Preparations for Lockout

NOTIFY – the Facilities Manager (Electrician-Central Office) or in their absence the Manager on Duty (Property Manager – Central Office) on equipment pertinent to the operation of the facility. This is a **MUST** before undertaking any of the activities on any type of machine, equipment or process.

Notify all affected employees and/or the supervisor in the area that a Lockout System is going to be performed and the reason thereof. All authorized employees shall know the type and magnitude of energy that the machine or equipment utilizes and the hazards associated.



2. Machine, Equipment, or Process Shutdown

Use the normal stopping procedure for the equipment being serviced. This may be putting a switch in the “off” position, or pressing a “stop push button”. It may involve a more complex operation

3. Machine, Equipment, or Process Shutdown

Carefully isolate the system from every energy source supplying it. Close valves, de-energize main disconnect switches or circuit breakers.

It must be noted, the extreme importance of practicing the “Left Hand Rule” when de-energizing and especially energizing an electrical disconnect switch; standing to the right side of the switch, activate the handle with the left hand while facing away from the switch.

 	SAFETY MANAGEMENT PROGRAM		Date Issued:	December 2015
			Date Revised:	December 2015
	Section:	ELECTRICAL		
	Module:	HAZARDOUS ENERGY CONTROL LOCK OUT PROGRAM		

4. Application of Lockout Devices

Attach a lock and tag to the energy-isolating device to prevent someone from restoring the flow of energy. Any personal lock shall be installed and removed only by the owner. The only key to the lock shall remain in the possession of the owner at all times. Any Lockout devices i.e. ball valve, circuit breaker, plug lockout device shall be installed at this time.

5. Stored Energy (De-energization)

Once the necessary lockout devices have been applied, relieve, disconnect or restrain any residual hazardous energy that could be present, check that all moving parts have stopped turning, relieve trapped pressure, blank pipe flanges (Confined Space Entry), block or support any elevated equipment.

6. Verification of Isolation

Ensure that all employees are clear of the Lockout area. Test to make sure the right system has been locked out and cannot be operated, do these by pressing all start buttons or other activating controls, and then returns them to the “off” position – this will prevent the equipment from being started by itself when energy is restored.

7. Release from Lockout (Re-energization)



When work has been completed, be sure the equipment is operationally intact and that tools and other non-essential items are cleared. Inform affected employees and/or the supervisor of the area that locks and tags will be removed. Conduct a head count to be sure that everyone is clear of the area. Remove Lockout devices, each worker must remove his or her own lock. Follow the equipment or machines start – up procedure. Perform a test run to ensure it functions as planned. Notify affected employees and/or the supervisor of the area that the equipment or machine is ready for use.

11.0 NON – COMPANY PERSONNEL

When outside Contractors or Sub-Contractors are performing service or maintenance on site they must comply with SIGA’s Hazardous Energy Control Lock Out Program.

A review of the Lockout Program shall be conducted at the Safety Orientation Meeting for any Outside Contractors and Sub-Contractors.



All outside Contractors and Sub-Contractors are responsible for bringing their own locks, tags and multiple locking devices on site. In addition, Contractors and Sub-Contractors must provide and use their own non-conducting fiberglass (No wood, No aluminum allowed) ladders.

 	SAFETY MANAGEMENT PROGRAM		Date Issued:	December 2015
			Date Revised:	December 2015
	Section:	ELECTRICAL		
	Module:	HAZARDOUS ENERGY CONTROL LOCK OUT PROGRAM		

12.0 LOCKOUT AND TAG REMOVAL WHEN AUTHORIZED EMPLOYEE IS ABSENT

In the event that an employee has left their lock and tag on an energy-isolating device and has left the premises, the following procedure shall be followed and documented.

1. Ensure the employee has left the premises – verify that the employee has swiped out.
2. Attempt to contact the employee.
3. If the employee is contacted, they shall return to the premises, if practical to remove their lock and tag.
4. If the employee cannot be reached or is unable to return to the premises, the Facilities Manager (Electrician – Central Office) or Manager on Duty (Property Manager – Central Office) shall first determine the reason for the Lockout.
5. Determine the status of the job.
6. A thorough inspection of the equipment or machine is to be conducted by the Facilities Manager (Electrician – Central Office) or Manager on Duty (Property Manager – Central Office) and all employees who were involved with the Lockout. This is to determine whether it is safe to remove the lock and tag.
7. Once it has been determined that it is safe to remove the lock and tag, the Facilities Manager (Electrician – Central Office) or Manager on Duty (Property Manager – Central Office) shall complete the Lock and Tag Removal Report and access the *Master-Secondary Key* – which is to be secured in a Lock Box with the Facilities Manager (Electrician – Central Office) or Manager on Duty (Property Manager – Central Office).
8. The lock and tag shall be removed with an employee witness present, and the lock and tag secured by the Facilities Manager (Electrician – Central Office).

 	SAFETY MANAGEMENT PROGRAM		Date Issued:	December 2015
			Date Revised:	December 2015
	Section:	ELECTRICAL		
	Module:	HAZARDOUS ENERGY CONTROL LOCK OUT PROGRAM		

13.0 EDUCATION AND TRAINING

Authorized employees in the following positions must receive Hazardous Energy Control Lock Out Program Training:

Facilities Department:

- All Facilities employees;
 - Facilities Manager;
 - All Occupational Health and Safety Committee Members;
 - Manager on Duty; and
 - Electricians (Central Office)
1. New Hires/Promotions/Transfers into the above employee positions must be trained on the first day of work in the Facilities Department. This training will be provided at the start of the shift and will be provided by the Facilities Manager or designated Electrician, or the Health and Safety Committee Representative.
 2. Any new authorized employees must receive CPR training within thirty (30) days of starting in the authorized employee position.



Training

Training must be provided before assignment to ensure that employees understand the purpose and function of SIGA's Lockout Program and that the knowledge and skills required for the safe application, use, and removal of energy controls are acquired. The training must include the following:

- 1) Each authorized employee must be instructed in the purpose and use of the energy control procedure.
- 2) Each authorized employee must receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, the methods and means necessary for energy isolation and control, and means of verification of control.

Retraining

Retraining must be provided annually and will be arranged by the Facilities Manager. This training will be provided by one of the following individuals: designated Electrician, designated Facilities Manager, or the Health and Safety Committee. The training will re-establish employee proficiency with control methods and procedures, as follows:

 	SAFETY MANAGEMENT PROGRAM		Date Issued:	December 2015
			Date Revised:	December 2015
	Section:	ELECTRICAL		
	Module:	HAZARDOUS ENERGY CONTROL LOCK OUT PROGRAM		

- a) Retraining must be provided whenever there is a change in job assignments, a change in machines, equipment, or processes that presents a new hazard, a change in the energy control procedures, or a revision of control methods; and
- b) Additional retraining must be conducted whenever periodic audits reveal or supervisory observations give reason to believe that there are deviations from or inadequacies in an employee's knowledge or use of energy control procedures.

Documentation

Documentation must certify that employee training has been accomplished and is being kept up-to-date. The certification must record each employee's name and dates of training. Required documentation that must be completed and submitted includes:

- a) Acknowledgement of undertaking form for Lockout Training. The original form is to be sent to the Human Resource Department and a copy to the Health and Safety Committee, Facilities Manager and Security.
- b) A Training Program Attendance Form must be completed for employees that receive training and sent to the Human Resource Department, in order to create a Lockout Training Report.