



October 31, 2007

Raymond K. Lorson, Chief  
U.S. Nuclear Regulatory Commission, Region I  
Decommissioning Branch  
Division of Nuclear Materials Safety  
475 Allendale Road  
King of Prussia, PA 19406-1415

**Lehigh Cement Company**  
WHITE CEMENT DIVISION  
200 Hokes Mill Road  
York, PA 17404-5540  
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www.lehighcement.com

**Re: Response to Inspection 03022076/2007001, Lehigh Cement Company, York, Pennsylvania Site and Notice of Violation**

Dear Mr. Lorson,

On behalf of the Lehigh Cement Company in York, PA, the Lehigh Cement Company (Lehigh), USNRC License Number 37-09813-03, has taken the following actions to respond to the Notice of Violation issued by the USNRC on October 1, 2007. The responses are referenced to the USNRC Docket No. 03022076, for the following Notices of Violation pertaining to the USNRC inspection of the Lehigh York facility on September 13, 2007:

- A. 10 CFR 20.1101(c) requires that each licensee periodically (at least annually) conduct a review of the radiation protection program content and implementation.

**Lehigh Response:** Please find attached a copy of the completed Annual Nuclear Gauge Audit Program for 2007 which is the review of the York Plant radiation protection program. Included is a list of trained employees where the information from the Annual Nuclear Gauge Audit Program for 2007 was communicated.

- B. Condition 25 of License No. 37-09813-03 requires that licensed material be possessed and used in accordance with the statements, representation and procedures contained in a licensee letter dated March 6, 2002. Item 10 of Appendix B to the letter of March 6, 2002, states that operating and emergency procedures that meet the criteria of NUREG-1556, Volume 4, will be developed, implemented, maintained and distributed.

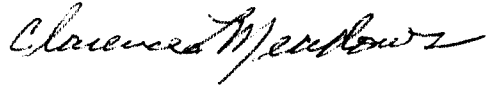
**Lehigh Response:** Please find attached the updated York Plant Emergency Response Plan and updated Lockout/Tagout Procedure that includes actions related to the use and possession of sealed source nuclear gauges. Procedures for operating personnel are outlined in the attached Annual Nuclear Gauge Audit Program for 2007.

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The actions listed in the response to the USNRC are completed as of October 31, 2007, and no further actions are required at this time to address the deficiencies noted during the USNRC inspection of September 13, 2007. Should you have any questions or require any additional information, please do not hesitate to contact me.

Sincerely,



Clarence L. Meadows  
Plant Manager  
Radiation Safety Officer

Cc: USNRC, Document Control Desk, Washington, DC 20555

# Annual Nuclear Gauge Audit Program

Lehigh Cement Company  
200 Hokes Mill Road  
York, PA

**Date of Audit:** October 30, 2007

**Name of Person Conducting Audit:** Thomas Powers

**Persons Contacted by Audit:** See attached list

**Areas to be Audited:** See Table 1 below.

**Table 1. Lehigh Cement Nuclear Gauge Inventory**

Location	Product	Model	Serial No.	Isotope	Activity	Source Serial:
Discharge Raw Mill Slurry Pump	TN	5201	B326	Cs-137	100 mCi	AA-0434
High Clay Pump Discharge	TN	5201	B337	Cs-137	100 mCi	AA-0064
Kiln Feed Discharge	TN	5201	B2634	Cs-137	100 mCi	GV-7240
Base of Pet Coke Cyclone	Ohmart	SR-A	62917	Cs-137	5 mCi	N/A02799
Low Clay Pump Discharge	TN	5201	B336	Cs-137	100 mCi	AA-0070
CKD Return	TN	5034	B165	Cs-137	500 mCi	GG-5354
Clinker Weigh Belt – 7 <sup>th</sup> Floor	Ronan	SA8-F37	M4514	Cs-137	50 mCi	N/A02800

## Source Description

The York Plant has 7 nuclear gauge sources containing radioactive material. These gauges are listed in Table 1, Lehigh Nuclear Gauge Inventory. Each source has a holder consisting of a lead filled cylindrical shield with the source held in its center by a steel retaining strap and spring washer. The strap is held in place by a steel cover plate. The shutter is manually operated and consists of a sliding lead shield in front of the beam port. The shutter mechanism also allows gauge calibration by use of calibration plates which can be positioned in the beam. Each source is permanently mounted in its respective location.

## Authorized Users

The materials referred to in this Audit Program are permitted under the U.S. Nuclear Regulatory Commission General Licensee Number GL-6563-7, and Materials License Number 37-09813-03 for the Lehigh York facility.

Licensed material shall be used by, or under the supervision of, Clarence Meadows, Ray Beiber, Curvin Hersh Sr., and James Peterson, who are listed as Authorized Users at the York Plant

The Radiation Safety Officer (RSO) for the York Plant is Clarence L. Meadows.

### **Phone Numbers**

**RSO:** Clarence Meadows (717) 843-0811 (Work), [REDACTED] (home)

**Authorized Users:** Curvin Hersh Sr. (717) 843-0811 (work), [REDACTED] (home)

James Peterson (717) 843-0811 (work), [REDACTED] (home)

**Gauge Manufacturer:** Thermo-Electron Corporation  
24-Hour Number – (800) 437-7979 – Maintenance and Repair  
(713) 272-0404 – Semiannual Source Testing

**Fire Department:** Lincolnway Fire Company, David Markle (Chief)  
Emergency – 911  
(717) 792-0116 (Fire Co. Phone)

**U.S. Nuclear Regulatory Commission:** Emergency 24-Hour Headquarters Operation  
Center - (800) 816-5100  
Non-Emergency Concerns – (800) 695-7403

### **Emergency Response Procedure**

In the event of an emergency that would involve damage or concerns related to the York Plant nuclear sources, employees are instructed to follow the York Plant Emergency Response Procedure. A copy of this procedure can be found in Attachment A of this Audit Program. The steps to take in the event of an emergency that involves a Plant nuclear sealed source gauge include the following:

- Move away from the Source Area
- Notify the Control Room Operator of the emergency and follow the steps to the Emergency Response Procedure attached in Attachment A.
- Secure the Area
- Notify the RSO
- Allow Emergency Responders to Stabilize the Conditions
- RSO identifies any damaged gauges
- RSO will notify the NRC within 24 hours according the requirements of 10 CFR 30.50(b)(4) for any emergency or accident involving nuclear material, lost or damaged radioactive material, and for any threat, smuggling, vandalism, or terroristic activity involving the York Plant or its nuclear gauges.
- RSO will arrange for trained radiological professionals to handle gauge recovery and clean-up.

**PERSONAL INFORMATION WAS REMOVED  
BY NRC. NO COPY OF THIS INFORMATION  
WAS RETAINED BY THE NRC.**

### **Authorized York Plant Activities**

The activities performed by York Plant personnel shall only include closing/opening of gauge shutters, locking out and tagging out of nuclear gauge shutters, performance of semi-annual wipe tests, and routine maintenance, cleaning, calibration and electronic repairs as required and conducted by Authorized Users. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months. The Plant Lockout/Tagout Procedure is found in Attachment B.

Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders or detector cells by the licensee. Removal of gauges, handling, storage, transfer, and disposal other activities are restricted activities; and only those personnel with a specific license to install, remove, or perform maintenance on the unit will be contracted by Lehigh to conduct such activities with any nuclear gauges. The contractor selected for use by Lehigh shall have satisfied or completed a fixed gauge manufacturer's or distributor's course for the user, or an equivalent course that meets the requirements of Appendix G of the Consolidated Guidance About Materials License, NUREG-1556 for the U.S. Nuclear Regulatory Commission.

Based on calculations of expected exposures to employees for the allowed activities and interaction with nuclear gauges, no employee is expected to receive a radiation dose in excess of 10% of the 100 mRem threshold per year at the Lehigh York Plant.

Lehigh certifies that the location of the gauges used in the cement manufacturing process is compatible with, and meets the conditions of normal use consistent with the SSD Registration Certificate.

### **Annual Training**

- Employees who work in the vicinity of the sealed sources are to be informed of the nature and location of the gauges.
- An instruction to the meaning of the radiation symbol is to be given.
- Fixed gauges at Lehigh are secured to prevent unauthorized removal or access by being permanently mounted in their respective locations.
- The York Plant and nuclear gauges under its control are monitored daily by shift personnel who man the Plant 24 hours per day, 365 days per year.
- Each gauge is equipped with a shutter shield capable of being locked in place to obstruct the gauge beam for protection as required for employees or any authorized user.

York Plant nuclear gauges are guarded to prevent the entry of all or part of a person's body into the area between the gauge source and the gauge detector. In the event an employee has need to perform Plant maintenance around the gauge that would place their body between the radiation beam and the gauge receiver, the employee will follow the lockout /tagout procedure. The lockout/tagout procedure for the York Plant nuclear gauges includes the physical movement and locking of the gauge shutter into the "off" position and the tagging of the shutter control mechanism to indicate the shutter is locked-out.

The NRC must be notified when gauges are lost, stolen, or certain other conditions occur. The RSO must be proactive in evaluating whether NRC notification is required, and will make notification according to the Typical NRC Incident Notifications Required for Fixed Gauge Licensees found in the Table P.1 of the Consolidated Guidance About Materials License, NUREG-1556 for the U.S. Nuclear Regulatory Commission.

Lehigh will perform a prospective evaluation demonstrating that unmonitored individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits in 10 CFR Part 20, or Lehigh will provide dosimetry that meets the Criteria in the section entitled "Radiation Safety Program – Occupational Dosimetry in NRC's NUREG-1556.

<b>2007 Sealed Source Annual Audit and Safety Program</b>	
<b>Audit Findings:</b>	The sideguards to the CKD Return gauge need to be reattached. Install sideguards to CKD return.
<b>Corrective Action and Followup:</b>	Work orders to repair above items has been entered, with work scheduled to be completed by 11/2/7. Retraining of employees to communicate to employees that nuclear sealed source gauges at the York Plant have been added to the York Plant Emergency Response Plan. Reposting of revised Emergency Response Plan has been completed.

Signature: T. Powers Date: 10/31/07

# **Annual Nuclear Gauge Audit Program**

**Lehigh Cement Company  
200 Hokes Mill Road  
York, PA**

## **2007 Employee List on Training and Discussion of Sealed Sources**

Josh Byerts  
Jim Byerts  
Mike Richter  
Joel Byerts  
Curvin Hersh Sr.  
Jon Hersh  
Mark May  
Charles Snyder  
Stacey Riggins  
Mark Billet  
Harold Miller  
Tracey Resh  
Mike Zorbaugh  
Larry Rabenstine  
Curvin Hersh Jr.  
James Peterson  
Nathan Ray  
George Rose  
Steve Fagerland  
George Wisenall  
David Honeycutt  
Tim Brown  
Clarence Meadows  
Tom Powers

# **EMERGENCY ACTION PLAN**

LEHIGH CEMENT COMPANY - YORK, PENNSYLVANIA

## **I. *Recognize that an emergency exists.***

### **A. Check the scene for safety. *Don't be a dead hero!***

1. Gas, fumes.
2. Electrical hazards.
3. Excess heat - fire.
4. Confined space.
5. Assess area for potential damage to Nuclear Gauges in the following areas:
  - Raw Mill Discharge
  - 7<sup>th</sup> Floor Clinker Weigh Scale
  - Low Clay Tank Pump
  - High Clay Tank Pump
  - Kiln Feed Discharge
  - Pet Coke Cyclone
  - CKD Return line to Waste Dust Tank

In event of potential damage, do not enter area and contact Environmental & Safety Supervisor to make arrangements for certified contractors to remove, install, relocate equipment, and conduct remedial activities as required. Until such time as arrangements are made post a radiation warning sign at the entryway to scene preventing unauthorized access, removal, or use of gauge. At no time are employees to touch unshielded source material, remove, or relocated these devices.

## **II. If area is clear and free of hazards, decide to act.**

### **A. Check the victim.**

1. Check the scene again for hazards.
2. Check the victim for consciousness.
  - a. If conscious, find out what happened.
  - b. If unconscious, call for an ambulance at once.
3. Keep victim as comfortable as possible. Don't move if in doubt of back injury.
4. Use common sense.

## **III. Call for an ambulance. NEVER HESITATE CALLING FOR HELP. WHEN IN DOUBT, CALL 911.**

- A. Contact either the Control Room Operator (extension 231) or the Office Operator (phone extension 266 or radio). Communicate what happened to the Control Room Operator (or Office Operator). Communicate as much as possible and indicate the location of the victim.
- B. Have them call 911. (cellular phones are in Shift Foreman's Office--if they would be helpful).
- C. Give them as much information as possible--i.e. ambulance or ambulance and advanced life support needed. (When in doubt, request advanced life support.)

*(Continued on Back)*



- D. Have operator get back to you that they have contacted County Control.
- E. Open any closed gates (key in Lab Safety Room).
- F. Get as many people as possible involved with Plant radios to help guide the emergency equipment to the accident scene. Meet them at the gates. Stage at Hokes Mill Road Gate and Lemon Street Gate to direct the ambulance. If victim is capable, move him to the First Aid Room. If a number of people are not available to man the gates, communicate to the E.R. to head to the "base of the big red and white stack". In the event of a major fire or plant disaster, the **RALLY POINT FOR ALL EMPLOYEES IS THE BASE OF THE OLD RED AND WHITE STACK**. The alternate Rally Point will be the Gray Dust Tank.

IV. Care for the victim.

- A. Do not move the victim unless a life threatening danger exists.
- B. Reassure the victim.
- C. Observe the victim for changes.
- D. Get permission from the victim for first aid, if conscious.
- E. Help the victim rest comfortably.
- F. Keep the victim from getting chilled or overheated.
  - 1. Blankets available in Lab First Aid Room
- G. Administer necessary first aid (kits available in the Lab and Packhouse Break Room).
- H. Try to get Plant personnel trained in first aid/CPR to the scene for assistance.
- I. If you have to administer CPR, use CPR face masks located in the First Aid Room or the Foreman's Office.

V. Communicate with emergency response team upon arrival.

- A. Tell them what happened.
- B. Relay observations of the victim, including any changes.
- C. ***Do not stop care until emergency response relieves you!***
- D. Find out hospital or destination the victim is going. If an extra man is available, follow in the Company pick-up truck.
- E. Find out about the victim's condition. Keep in communication after the victim leaves.
- F. Communication of victim's condition is to be done by medical personnel to next of kin.

**Lehigh Cement Company**  
**York, PA**

***Lockout/Tagout Procedure***

**1. Purpose**

The purpose of this procedure is to provide maximum protection to all Lehigh York Plant employees and equipment while personnel are working on or about equipment powered by an energizing source such as electricity, hydraulics, steam, water, pneumatics, stored mechanical energy, gravitational forces, momentum, or thermal conditions. This procedure describes the methods to be used to lockout or tagout equipment to prevent unexpected energization, start-up, or release of stored energy in order to prevent injury to employees.

**2. Scope**

This procedure applies to installation, maintenance, equipment adjustment, and repair work at the Lehigh York facility.

Applicable MSHA regulations:

**30CFR Part 56.12016 – Work on electrically-powered equipment.** *Electrically powered equipment shall be deenergized before mechanical work is done on such equipment. Power switches shall be locked out or other measures taken which shall prevent the equipment from being energized without the knowledge of the individuals working on it. Suitable warning notices shall be posted at the power switch and signed by the individuals who are to do the work. Such locks or protective devices shall be removed only by the persons who installed them or by authorized personnel.*

**30 CFR Part 56.12017 – Work on power circuits.** *Power circuits shall be deenergized before work is done on such circuits unless hot-line tools are used. Suitable warning signs shall be posted by the individuals who are to do the work. Switches shall be locked out or other measures taken which shall prevent the power circuits from being energized without the knowledge of the individuals working on them. Such locks, signs, or preventative devices shall be removed only by the person who installed them or by authorized personnel.*

**3. Definitions**

- **Affected Employee** - Employee whose job requires operation or use of equipment on which maintenance is being performed under lockout/tagout, or whose job requires work in an area in which such

maintenance is being performed.

- **Authorized Employee** - Employee qualified through system knowledge and lockout/tagout training, and authorized by the facility to install lockout/tagout on machines or equipment in accordance with plant procedures.
- **Energy Isolating Device** - A mechanical device that prevents the transmission or release of energy, such as: a circuit breaker, a disconnect switch, a flow control valve, a blind flange, or block.
- **Energy Source** - Any source that could cause harm to personnel or equipment by generating or transferring electrical energy or potential voltage; hydraulic, pneumatic, gas, or steam pressure; vacuum; high temperature; cryogenic temperature; potentially reactive chemicals; or stored mechanical energy.
- **Lockout** - Prior to working on any piece of equipment, it is essential that all energy sources be isolated. This may be done by removing fuses, opening main disconnect switches, circuit breakers, locking valves, depressurizing lines, or blocking suspended loads. Upon locking the equipment or system to be worked on, a test must be performed to ensure that the lockout has been completed. Each system must be reviewed individually to uncover the potential hazard.
- **Lockout Hasps** - Hasps used for locking out devices shall be of heavy duty design, corrosion resistant, and shall accept multiple locks. Hasps shall comply with 29 CFR 1910.147.
- **Locks** - Safety locks which only have one key each shall be used.
- **Portable Electrical Equipment** - A lock-out is not required if the equipment can be unplugged from the energy source and the plug is under the exclusive control of the employee performing the work.
- **Sealed Source Device** - A density measuring device for material flow in the Plant that contains a small quantity of Cesium-137 radioactive material inside a sealed source. These sources have a shutter mechanism that can be positioned to prevent exposure to radiation from the sealed source device.
- **Tagout** - The placement of tagout devices on energy isolating devices is used to inform employees that the energy isolating device and the equipment must not be operated.
- **Tagout Device** - A prominent warning device, such as a tag and a means of attachment which can be securely fastened to an energy isolating device

in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled must not be operated or removed. Tagout devices are installed with all lockout devices, and on all boundary points that isolate equipment from sources of energy. Tagout devices are also installed on components used to verify or enhance the safety of a lockout/tagout, such as opened valves for venting and draining, installed grounds, or monitoring instrumentation. Lockout tags shall be vinyl, double sided, with bold lettering indicating the type of hazard condition. The tag shall have a tear proof metal grommet, and resist moisture, grease, and chemicals. The tag will have the necessary space to indicate the name of the individual locking out the equipment, the date, and the purpose for locking out the device. Tags need to state "DO NOT START", "DO NOT OPEN", "DO NOT OPERATE", etc.

#### **4. Responsibilities**

- The individual employees must:
  - Follow the lockout/tagout requirements of this procedure.
- Lehigh Management must:
  - Demonstrate this procedure to the employees and test the employee to prove the understanding of this procedure.
  - Document training, including the names and dates of each person trained or re-trained.
  - Treat all outside sub-contractors as employees when reviewing the lock-out and tag-out procedures.
  - Conduct audits of the use of the lockout/tagout procedure. The audit must include a review of the employee responsibilities with each authorized employee.
- The Lehigh Safety Committee must:
  - Provide guidance when questions or unusual conditions arise.
  - Provide guidance on the required approved locks, tags, and hasps for safe lockout.
  - Monitor forcible lock and tag removal.
  - Audit training.

- Assure that contractors and their employees receive the required safety training and comply with Lehigh's safety procedures.

## 5. Procedure

- Notify employees when servicing or maintenance is required on a machine or piece of equipment. When maintenance or servicing work is to be performed on process equipment, the operator of the equipment shall be notified of the repairs and will shut down the equipment using normal stopping procedures and notify maintenance personnel that the equipment can be de-energized and locked out of service. Communication between departments may be an important consideration to allow minimal disruption of operations
- **NOTE: Stored or residual energy such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc., must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc. If it is possible for stored energy to reaccumulate, a means shall be provided so workers can continue to verify that a safe level exists until completion of the work.**
- The maintenance personnel will follow all JSAs and process lockout procedures when preparing multiple lockouts of equipment for shutdown work. The authorized employee shall identify the type and magnitude of the energy sources that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy. All these forms of energy will be considered and immobilized by the employee who will place the appropriate energy immobilization device(s) on the equipment before starting any work.
- There are seven (7) nuclear weigh gauges in the York Plant that contain small amounts of cesium-137. Each gauge is a sealed source device (SSD) that is capable of being locked out by positioning the device shutter in front of the radiation source beam. Authorized users and qualified contractors that work on these units shall lock the shutter arm in place to prevent exposure to the source beam during maintenance, troubleshooting, and repair of the gauges. The sealed source devices include the following:
  - Raw Mill Discharge
  - 7<sup>th</sup> Floor Clinker Weigh Scale
  - Low Clay Tank Pump
  - High Clay Tank Pump
  - Kiln Feed Discharge
  - Pet Coke Cyclone
  - CKD Return line to Waste Dust Tank

In the event that a device requires maintenance, repair, or attention where all or part of a person's body may be placed between the primary radiation beam and the source receiver, the sealed source shutter will be positioned in the "Off" position to limit and minimize exposure to the radiation by any employee or contractor working on the unit. The sealed source device shutter control mechanism should be tagged to indicate the nuclear gauge is locked-out. A warning sign shall be posted in the area indicating the hazard and any safety instructions associated with working on these units.

- A specific written procedure for a piece of equipment does not need to be developed if all the following conditions are met.
  - The machine or equipment has no potential for stored or residual energy or reaccumulation of stored energy after shut down which could endanger employees.
  - The machine or equipment has a single energy source which can be readily identified and isolated.
  - The isolation and locking out of that energy source will completely deenergize and deactivate the machine or equipment.
  - The machine or equipment is isolated from that energy source and locked out during servicing or maintenance.
  - A single lockout device will achieve a locked out condition.
  - The lockout device is under the exclusive control of the authorized employee performing the servicing or maintenance.
  - The servicing or maintenance does not create hazards for other employees.
  - Deactivate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).

**NOTE: If it is not possible to lockout a circuit, the leads to the specific equipment may be physically disconnected by a qualified electrician at the disconnect, breaker, or junction box. The leads must be taped and a danger tag placed at the disconnect.**

**NOTE: Should the need arise, de-energizing and lockout of high energy switchgear shall only be performed by qualified electricians.**

- Prior to performing any maintenance or servicing work, each maintenance employee performing this work shall install their personal lock and tag on all energy sources

**NOTE: Personnel who have installed locks shall maintain the key in their possession at all times.**

- After the lock(s) and tag(s) have been attached, each person must check for proper lockout by attempting to start the equipment. All persons

involved in locking out the equipment shall be informed when the attempt is made to start the equipment. This attempt will be accomplished by depressing the start button. When personnel are assured that the equipment is properly de-energized and locked, the stop button is to be depressed. As an added measure, the person performing the work can contact the control room to verify the lockout with the control room operator attempting to start the piece of equipment or process. A yellow or red signal on the control room screen will signify that the equipment has been deenergized of electricity.

- Any deviations from this procedure will be noted in a separate department procedure approved by the Safety Department.
- Shift Change Personal Lock Transfer: Sometimes a person's work shift ends prior to completion of work on equipment they have locked out. If someone else is expected to finish the work during the interim period before the person's next scheduled work shift, then the person leaving the work will be responsible for a lockout transfer. The lockout transfer will be accomplished in the following manner:
  - The off-going and oncoming persons together shall review and verify the lockout/tagout.
  - At each energy isolating device, oncoming persons shall attach their own tag and off-going persons shall remove their tag.
  - In the event the equipment will be locked out for the long term, the employee will install a departmental lock. All keys for applicable locking devices shall be turned over to the oncoming person or foreman of the department.
- Restoring Equipment to Service: When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken:
  - Check the machine or equipment and the immediate area around the machine or equipment to ensure that non-essential items have been removed and that the machine or equipment components are operationally intact.
  - Check the work area to ensure that all employees have been safely positioned or removed from the area.
  - Verify that the controls are in a neutral state.
  - Each person shall remove their own lock. No individual shall remove another's lock and tag. Re-energize the machine or

equipment.

- Notify affected employees and/or control room that the servicing or maintenance is completed and the machine or equipment is ready for use.
- In situations in which lockout or tagout devices must be temporarily removed from the energy isolating device and the equipment energized to test or position the machine the following sequence of actions must be followed:
  - Clear the equipment of tools and materials.
  - Remove employees from the equipment area.
  - Verify that the controls are in a neutral state.
  - Remove the lockout, tagout, or energy isolation devices.
  - Energize and proceed with testing or positioning.
  - Deenergize all systems and reapply energy control measures in accordance with this procedure.
- Forcible Removal of Locks: There may be occasions when a person who has locked out equipment has left the plant. If the lock must be removed, the following will be required:
  - Every effort will be made to contact the person to obtain permission to remove the lock. Verify that the employee is not on plant property and no individual is in a hazardous location before removing an employee's safety lock.
  - If the employee cannot be located, the supervisor will be responsible for taking whatever action is necessary to assure that personnel will not be endangered or equipment damaged before the lock is removed. The supervisor shall thoroughly inspect the equipment or system.
  - The supervisor must be present when the lock is removed. If multiple locking hasps or adapters are used, cut the portion of the adapter containing the lock.

**NOTE: Any unauthorized person who removes a safety lock and or warning tag from a piece of equipment or piping and operates or attempts to operate the equipment is subject to employee corrective action, including discharge.**

## 6. Training/Documentation

- The lockout/tagout program must be reviewed with all authorized and



affected maintenance employees and contractors.

- Authorized employees must be trained to recognize potentially hazardous energy sources, the amount of energy associated with these sources, and the methods and means necessary for energy isolation and control.
- Employees working on or in proximity to sealed source devices (SSD) shall be trained annually on the requirements and responsibilities for use of nuclear weigh gauges in the Plant.
- Affected employees shall be instructed in the purpose and use of the energy control procedure and shall be instructed not to attempt to restart or re-energize machinery or equipment under lockout.
  - Employees shall be trained in the following limitations of tags.
  - Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.
  - When a tag is attached to an energy isolating means, it is not to be removed without authorization of the authorized employee responsible for it, and it is never to be bypassed, ignored, or otherwise defeated.
  - Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective.
  - Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.
- Employee retraining must be conducted for all authorized employees whenever there is a change in job assignment, or a change in machinery, equipment or processes. Retraining must also be conducted whenever an audit reveals that there are deviations from or inadequacies in the current program.
- All authorized employees trained in lockout/tagout procedures will have their training document on the Task Training form. The supervisor will sign off that training has been verified and completed. This form will be returned to the Safety Supervisor for signature indicating that they have been trained or retrained in proper lockout procedures. These records will be stored in the trained individual's personnel file.