

ENERGY CONTROL PROCEDURE

| | | | |
|---------------------|----------------------|----------------|-----------------------|
| Plant: | Irvine, CA | Developed By: | Sentinel Safety Group |
| Department/Process: | Manifold | Reviewed By: | |
| Equipment Name: | Okuma MC 5 Mach/Cntr | Origin Date: | 2/1/2019 |
| Asset Number: | B 1191 | Revision Date: | |

Procedure Purpose and Compliance

Purpose & Scope: This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing tasks are performed on machines or equipment as outlined below in 'Tasks'.

Compliance: All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized employees are required to perform the lockout in accordance with this procedure. Failure to follow this lockout procedure may result in injury to personnel or damage to equipment and may result in disciplinary action, including termination.

Tasks: This procedure applies to the following tasks associated with this equipment:

- | | | | |
|---|---------------------------|---|--|
| 1 | Maintenance and Servicing | 3 | |
| 2 | | 4 | |

| | | | |
|----------|--|---------------------------------------|---|
| 2 | | # Locks Needed for Lockout | Special Instruction |
| | | | To prepare for LOTO, use E-Stop, Power OFF, disconnect. |

Cautionary Statement

Pneumatic equipment can store energy. Ensure pressures have bled off before proceeding.

Lockout Sequence

- STEP 1** Notify all affected employees that the equipment must be shut down and locked out.
- STEP 2** Authorized employee shall understand the hazards of the energy and shall know the methods to control the energy.
- STEP 3** Shut equipment down by the normal stopping procedure.
- STEP 4** De-activate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s) identified below.

| Energy Source Magnitude | Isolation Point ID | Energy Isolating Device & Isolation Method | Lockout Device | Stored Energy? | Zero Energy Verification |
|---------------------------|--------------------|--|-------------------|----------------|--------------------------|
| Electrical 480 VAC | 220 | Place disconnect in off position and apply lock. | Lock | No | Actuate controls |
| Pneumatic 80 - 110 PSI | 1107 | Turn valve to closed position and apply lockout device and lock. | Ball Valve Device | Yes | Check for air pressure. |

STEP 5 Lock out the energy isolating device(s) with assigned individual lock(s) or process locks.

STEP 6 Stored or residual energy must be dissipated or restrained as shown below.

| Energy Source | Method of Control or Dissipation. | Equipment Needed |
|---------------------------|---|------------------|
| Pneumatic 80 - 110 PSI | It may be necessary to bleed air from line to relieve pressure. | |

STEP 7 Verify the isolation of the equipment by operating control(s) or by testing to make certain the equipment will not operate by following the Zero Energy Verification outlined in section 4. **Please note that electrical work or access to electrical conductor requires zero energy verification with a properly rated meter.**

STEP 8 The machine or equipment is now locked out.



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Equipment Photo: B 1191, Okuma MC 5 Mach/Cntr



Isolation Point and Controls Identification

| | | | |
|--------------|-------------------------------|--------------|----------------------------------|
| Description: | LOTO #220, 480 VAC disconnect | Description: | LOTO #1107, Ball Valve isolation |
| Location: | Back of equipment | Location: | Back of equipment |



Return to Service

- Step 1 Verify equipment and area is clear of tools, workers, equipment, materials, and debris.
- Step 2 Verify controls are in neutral.
- Step 3 Reposition any safety devices, guards, interlocks.
- Step 4 Warn workers to stay clear of area.
- Step 5 Remove all locks and tags from energy control points.
- Step 6 Verify affected areas are clear of personnel.
- Step 7 Re-energize the machine or equipment.