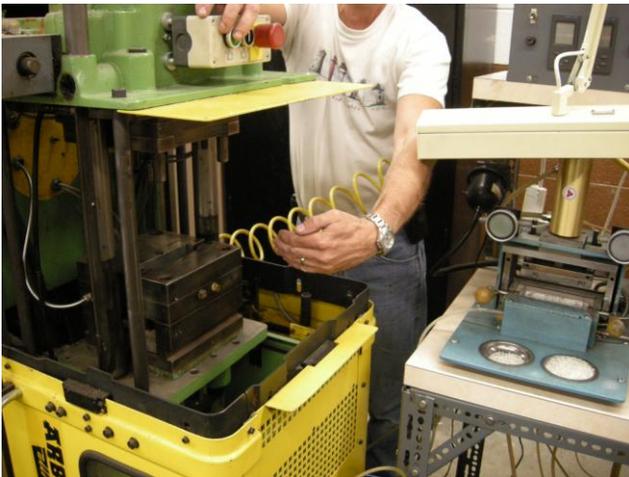


Case Study: Ensuring Hazardous Energy Control Procedure Compliance



Challenge:

The control of hazardous energies, commonly referred to as Lockout/Tagout (LOTO) is critical to ensuring worker safety and maintaining production schedules. Hazardous energies come in many forms. Typically, when considering hazardous energies, most people think of electricity. Although electricity is the most widely used form of energy in production, manufacturing and other business activities, ignoring other forms of energies can imperil workers and equipment. These “other” forms of energy include steam (low and high pressure), kinetic energies (parts/equipment in motion as well as passive kinetic such as spring-loaded equipment), stored energy, pneumatic, hydraulic, and chemical (hazardous, pressurized and reactive), or any combination of these.

Our client, a leader in the eye-care industry, employs several hundred employees in their New England locations. The primary facility, which is the subject of this discussion, engages in manufacturing, printing, warehouse and order filling activities.

Solution:

In the past, control of hazardous energies was predicated on operator or maintenance personnel experience (historical knowledge) of the equipment and the process. A “false sense of safety” had developed over time based on low employee turnover and lack of incidents involving hazardous energies. However, with the purchase of several competing manufacturers and the influx of new equipment and additional personnel, management recognized that they were not in regulatory compliance (OSHA) and they could no longer rely on past accident scarcity and experience or historical knowledge to keep their employees safe.

At this point, company management requested Pisano and Associates conduct a hazardous energy safety audit and develop a comprehensive safety and compliance program. The audit identified twenty-two HVAC units (roof mounted), sixteen production lines, two boilers, two wastewater treatment units and a single clean air supply unit. Energies identified which required control procedures under the OSHA standard (29 CFR 1910.147) included electrical, chemical, steam, pneumatic and hydraulic. The magnitude of each type of energy was also recorded to be included in the written procedures and to ascertain if specific training and/or certifications were required to work on the equipment (none were).

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At the time of the audit, there were no written hazardous energy control procedures for any equipment, or proper lockout/tagout equipment. OSHA regulations require that a dedicated written LOTO procedure be developed for each individual piece of equipment (identical equipment may be covered under a single procedure). Training of authorized employees (those who will initiate LOTO) as well as affected employees (those who work around or with the equipment subject to LOTO) is also required. In that there were no written LOTO procedures, nor an over-all hazardous energy control program; there were no written training procedures.

Result:

Upon completion of the audit, Pisano and Associates was tasked with developing an OSHA compliant Hazardous Energy Control Program. A written procedure was developed for each piece of equipment, complete with a photo of the specific LOTO point(s), and the type of LOTO device(s) necessary. The type of maintenance or in-process work to be performed was also reviewed to ensure that the proper energy shutoff point(s) had been identified, and to ensure the safety of affected employees. An ample supply of devices, locks, and tags were purchased. Authorized employees were issued their own locks, each with individual keys (one lock/one key).



The client has continued to use P&A to conduct annual training, inventory and HazCom program support, and to assure health and safety compliance by completion of the prioritized task list. At Pisano and Associates, we believe that in a manufacturing environment where chemical usage is required, hazard communication is the ideal starting point for development of a comprehensive, compliance driven health and safety program.

As required by OSHA, the final program included identification and development of:

- Responsibilities
- Authorized and Affected Employees
- Types and Magnitudes of Energies
- Types and Locations of Energy Isolating Devices
- Written Procedures, including
 - Preparation (for shutdown)
 - Equipment Shutdown
 - Equipment Isolation (main power switch)
 - Application of LOTO
 - Verification of Isolation
- Release from LOTO
- Associated Records
- Annual Review Procedure

Upon completion of the program, a two-tiered training program was developed. The “lower tier” was more informational-driven and was provided to “affected employees.” The “upper tier” training was machine specific, encompassing the entire written program. This was provided to “authorized employees.”

About Pisano & Associates LLC:

Founded in 1998, Pisano & Associates LLC is an Environmental, Health, Safety & Ergonomics consulting and outsourcing company headquartered in Pawtucket, Rhode Island. Combining unparalleled experience, technical expertise and comprehensive capabilities, P&A collaborates with clients to help them rationalize their approach to EHS regulatory compliance.

For More Information:

To learn more about how Pisano & Associates can help your company build scalable, sustainable Environmental, Safety, Health and Ergonomic compliance strategies and programs, contact Frances Pisano at 401-529-8398, or visit pisoassociates.com

