

Case Study: Understanding Your Chemical Hazards OSHA 29 CFR 1910.1200



Challenge:

The control of hazardous chemicals is paramount to ensuring worker safety and protecting public health. OSHA, EPA, DOT, and other federal and state agencies demand that hazardous chemicals be transported, stored, handled, used, and disposed of properly. With close to a million chemical products in use in the U.S., this can be a daunting task.

Our client, a leader in their industry, employs close to 200 employees in their southern New England location. This facility engages in manufacturing, printing, warehouse and order filling activities.

The client's use of chemicals increased in tandem with production and product development expansion. Handling and storage, along with regulatory compliance, which had previously been rather haphazard, was recognized as an issue that needed to be addressed. As they educated themselves to these needs, additional shortcomings in health and safety quickly became apparent. It was at this point that management brought in Pisano & Associates (P&A) to conduct a compliance review and present a prioritized report for achieving health and safety compliance. A multi-year plan was developed, with color-coded graphic representation of high priority (red), medium priority (yellow), and low-priority (green) needs. This enabled management to quickly understand their needs and the path forward.

Solution:

Upon advice from P&A, the client agreed that their top priority would be to establish control over the chemicals used in manufacturing and maintenance by the creation and implementation of a Hazard Communication (HazCom) program. A comprehensive approach was applied which would enable information gathered during the creation of the HazCom program to be used in future program development (energy control, personal protective equipment needs, fire prevention, waste minimization, process hazard analysis, etc.). Initial steps taken were:

- Chemical inventory by department
- Chemical storage conditions
- Labeling
- MSDS collection compared to inventory
- Inventory compared to need and usage
- Identification of training needs (management versus line personnel)

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Inventory results were typical of a manufacturing environment that lacked significant emphasis on safety and health. Multiple chemical containers (full and partial) of like or similar chemicals were identified with inadequate attention paid to labeling, storage or segregation/compatibility. In one cabinet, examples of chemicals stored together included enamels, lubricants, paint thinner, butane fuel, oxygen (welding gas), and hydrogen peroxide, a volatile mix under any circumstances. In this case, the storage cabinet was a simple gray metal cabinet with no bonding/grounding. The client was advised of the potential catastrophic consequences of this type of storage practice.

A total of 468 chemicals were inventoried.

- Approximately 40% (194) did not have a corresponding MSDS in the collection.
- Flammable inks and solvents used in printing/production were stored in flammable cabinets, but minimum labeling requirements were often lacking.
- In areas other than production, flammable chemicals were often not stored in proper cabinets.
- No written HazCom program existed, nor was routine HazCom training being conducted.



Result:

As anticipated, development of the hazard communication program was an ideal first step in defining and creating awareness of the client's health and safety needs. As at the start of any journey, the first steps were a bit tentative. However, by having management and line personnel involved from the beginning, P&A was able to get immediate buy-in and cooperation, which greatly facilitated our ability to create a thorough picture of chemical usage, handling, storage and disposal activities. This in turn allowed P&A to produce a HazCom program that provided a realistic framework for safe chemical handling and training needs.

- Client fully compliant with OSHA 29 CFR 1910.1200 regulation
- Tighter understanding of inventory reduced duplicate and obsolete materials. Inventory counts dropped by 25% - reducing storage requirement costs.
- An HMIS® labeling system (Hazardous Materials Identification System) was introduced as a part of the written HazCom program
- P&A continues to conduct annual training, inventory and HazCom program support, and to assure health and safety compliance by completion of the prioritized task list.

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

