

KENTUCKY OSHA JOURNAL

Citations for November 2013

Vol. 16, No 11

Improving safety by transitioning to safer chemicals in Workplace

By: Edwin S. Hopson
Wyatt, Tarrant & Combs, LLP

The U.S. Occupational Safety and Health Administration recommends establishing a chemical management system that goes beyond complying with existing OSHA standards. Such a system, OSHA claims, would reduce or eliminate chemical hazards at the source by substituting safer alternatives. Such a transition, however, can be a complex undertaking. There are a variety of existing resources to make it easier.

OSHA has developed a step-by-step "toolkit" for employers and employees containing information, methods, tools, and guidance on using informed substitution of safer chemicals.

By taking this approach, according to OSHA, companies can improve worker safety through eliminating or reducing hazardous chemicals, while creating other benefits, including:

- **Cost Savings** — Reduce expenses/future risks.
- **Efficiency** — Improve performance.
- **Industry Leadership** — Invest in innovation to stay competitive.
- **Corporate Stewardship** — Advance socially responsible practices.

This approach can be utilized by all types of companies, including manufacturers using chemicals in their production processes as well as for businesses that use products containing chemicals in their everyday operations. For instance, the service sector such as janitorial firms, auto body repair shops, pathology labs, and construction companies often use products containing chemicals that could present hazards to their employees.

The OSHA's guidance states:

"Informed substitution, replacing hazardous substances with safer alternatives, is the goal of a solutions-oriented approach to chemical management. It involves identifying alternatives

and evaluating their health and safety hazards, potential trade-offs, and technical and economic feasibility.

A safer alternative is an option that is less hazardous for workers than the existing means of meeting that need. Sometimes, this means choosing the option of not continuing an activity altogether; this also may include using chemical substitutes or product or process redesigns that completely eliminate the need for specific hazardous chemicals. Informed substitution is the goal of the seven-step process presented by OSHA in this toolkit.

**Informed
substitution is
the goal of the
seven-step process
presented by
OSHA in this
toolkit.**

Substitution planning is a process to systematically set goals and priorities to reduce hazards, develop a chemical use inventory, evaluate alternatives, identify preferred alternatives, and implement alternatives. Taken together, steps 1-7 outline a substitution planning process.

An alternatives assessment is a process for identifying, comparing, and selecting safer alternatives for hazardous chemicals on the basis of their hazards, performance, and economic viability.

An alternatives assessment is a key component of a substitution planning process and is used in the evaluation and comparison of alternatives."

For more details and practical guidance, see the following reference on OSHA's Transitioning to Safer Chemicals (https://www.osha.gov/dsg/safer_chemicals/basics.html):

BizNGO. BizNGO Chemical Alternatives Assessment Protocol. *(PDF) This resource is a decision framework for substituting chemicals of concern to human health or the environment with safer alternatives.

BizNGO. The Guide to Safer Chemicals. This resource is a hands-on guide for downstream users of chemicals that charts pathways to safer chemicals in products and supply chains.

— Continued next page

Chemical Commons. Principles for Alternatives

Assessment. This framework includes six principles for alternatives assessment that guide a process for well-informed decision making that supports successful phase-out of hazardous products, phase-in of safer substitutes, and elimination of hazardous chemicals where possible.

Books that shaped work in America

Last year, in honor of its 100th year, the US Department of Labor, in partnership with the Center for the Book in the Library of Congress, began developing a list of Books that Shaped Work in America. The idea stemmed from a 2012 exhibit at the Library of Congress called Books that Shaped America, where many of the books addressed issues related to work.

To get started, DOL established a Web site and invited former secretaries of labor and other distinguished agency employees, both past and present, to recommend their favorite literary picks. The project cuts across political lines.

For example, George P. Shultz, former secretary of labor under President Nixon and later secretary of state in the Reagan administration, said he likes Walt Whitman's *Leaves of Grass* (1855), which he described as "filled with images of workers on farms, in factories and on boats — heroes of democracy." And Robert Reich, the 22nd US Secretary of Labor, under President Clinton, recommends, among other books, Upton Sinclair's *The Jungle* (1906), which was first to expose — in Sinclair's words — 'the inferno of exploitation' — "the typical American factor worker using Chicago's meatpacking industry as a case in point."

In writing about the project, Bloomberg, commenting on the partisan rancor in the nation's capital, said, "The selections might offer lessons to a city consumed with partisan rancor. Where else would [Elaine] Chao, wife of Senate Minority Leader Mitch McConnell, a Kentucky Republican, see eye-to-eye with Ray Marshall, Labor secretary to President Jimmy Carter? Both recommended *Out of the Crisis* (1982) by management guru W. Edwards Deming. The book advocates cooperation between labor and management as a way to boost business and create jobs."

Other titles include *Grapes of Wrath*, *To Kill a Mockingbird*, *Of Mice and Men*, *O' Pioneers*, and *The Organization Man*.

The DOL seeks to list 100 books that have shaped the American workplace. The project is a work in progress. You are invited to recommend books. Enter your suggestions at <http://www.dol.gov/100/books-shaped-work/form.htm>. Or, to read about the project and the favorite picks of others, go to <http://www.dol.gov/100/books-shaped-work/>.

CITATIONS & FINES**DENIOS INC.**

1152 Industrial Blvd., Louisville

Inspection site: 1152 Industrial Blvd., Louisville

11-22-13

\$60,900

Serious

- Employees were working on environmental and chemical cabinets a least 12 feet above ground with no fall protection. \$4,900
- Mezzanine storage area did not have load capacity identified. \$3,500
- Employer did not perform a PPE hazard assessment to determine if hazards existed that necessitated the use of PPE. \$4,900
- Employees were not required to wear proper filtered lenses while cutting plasma. \$4,900
- Employer did not develop and implement proper lockout/tagout procedures. \$4,900
- Employer did not provide proper lockout/tagout hardware for employees performing lockout/tagout activities. \$0
- Employer did not periodically inspect energy-control procedures. \$0
- Employer did not properly train employees on lockout/tagout procedures. \$0
- Industrial shear and hydraulic punch press were not properly guarded. \$4,900
- Hydraulic press brake was not properly guarded. \$0
- Guard was missing on industrial pedestal fan. \$3,500
- Work rest on bench grinder was adjusted to 3/8 inch, greater than the 1/8-inch maximum standard. \$2,800
- Tongue guard had been removed from bench grinder. \$0
- Compressed air tips used for cleaning did not have safety tips to reduce pressure to less than 30 p.s.i.; compressed air was set at 105 p.s.i. \$3,500
- Abrasive wheels on hand grinder were not properly guarded. \$2,100
- Adequate PPE was not provided around welding stations. \$4,900
- Multiple power cords were damaged, exposing inner insulation. \$4,900
- Knockout was missing from light switch, exposing employees to possible shock or electrocution. \$3,500
- Power cord on industrial pedestal fan had been spliced with an extension cord. \$0
- Containers of chemicals were not properly labeled. \$2,800
- Employer did not provide hazardous communication training. \$4,900

Other

- Drill press was not anchored to prevent movement. \$0