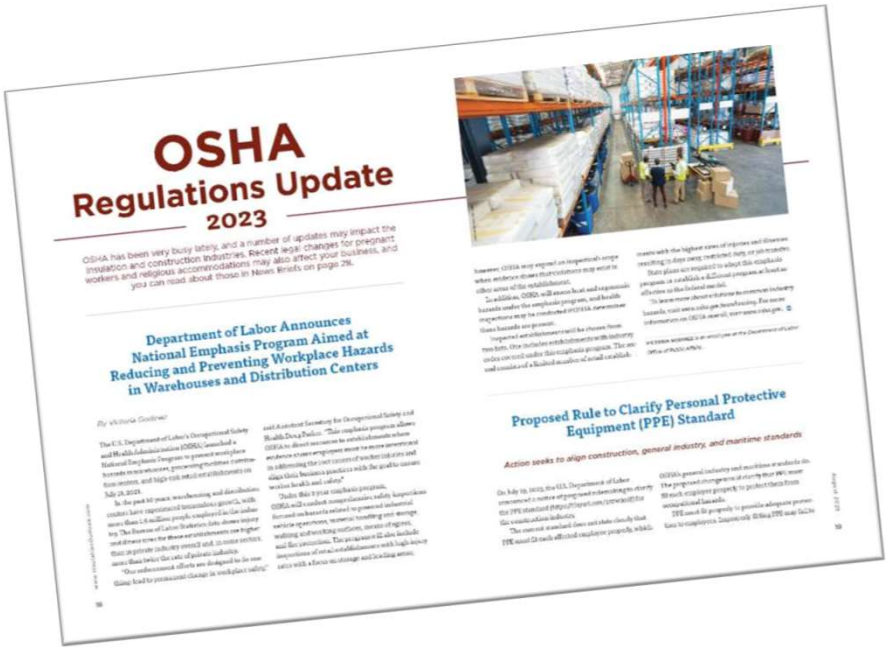

OSHA
Regulations Update
2023

OSHA has been very busy lately, and a number of updates may impact the insulation and construction industries. Recent legal changes for pregnant workers and religious accommodations may also affect your business, and you can read about those in News Briefs on page 216.

Department of Labor Announces National Emphasis Program Aimed at Reducing and Preventing Workplace Hazards in Warehouses and Distribution Centers

By Victoria Gardner

Proposed Rule to Clarify Personal Protective Equipment (PPE) Standard

Action seeks to align construction, general industry, and maritime standards

Wave of New Regulations Impacting Industrial Hygiene including Permissible Exposure Limits (PELs):

What is OSHA's Proposing and How to Prepare!

Daniel Engling, M.S., CSP, CIH

KERAMIDA, Inc.

Vice President, Health and Industrial Hygiene Services

James Brown

Bulldog Battery Corporation

Manager of Operations & HR

Air Quality:

- The condition of cleanliness of the air in our environment, specifically in terms of the presence and concentration of Pollutants or Contaminants

Industrial Hygiene:

- "The science and art devoted to the…

Anticipation

Recognition

Evaluation

Control

Of those environmental factors or stresses arising in or from the workplace that may cause sickness, impaired health and well-being, or significant discomfort among workers or among citizens of the community."
~Barbara A. Plog, MPH, CIH, CSP

Industrial Hygiene:

- Typically, CBRNP Hazards are covered:

Chemical

Biological

Radiological

Nuclear

Physical

IH Rule # 1

- Understand what you're dealing with.
  - Be prepared for this to take time and effort.

What is a PEL?

- An OSHA Permissible Exposure Limit is a regulatory standard set by the **O**ccupational **S**afety and **H**ealth **A**dministration.
- Its purpose is to protect workers from the adverse health effects of exposure to hazardous substances in the workplace.
- These limits define the maximum legally allowable concentration over time.
- PELs are not generally considered to be the standard for adverse effect threshold.

What is a PEL?

- Related Terms and Resources
  - REL
  - TLV
  - Banding
  - Research

  Why are these generally more conservative than PELs?

What is a PEL?

- Since 1970, OSHA promulgated complete standards including new PELs for 16 agents, and standards without PELs for 13 carcinogens.
- Most of OSHA's PELs were issued shortly after adoption of the Occupational Safety and Health (OSH) Act in 1970, and have not been updated since that time.

The Problem - Regulator

Regulator

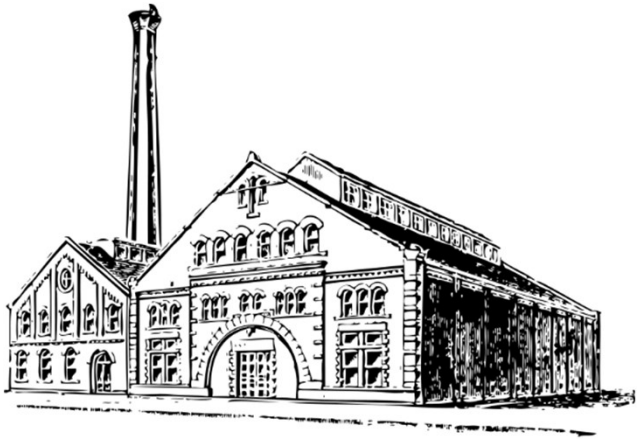
"*A broad consensus exists among public health experts and practitioners, chemical manufacturers, and labor and employer groups that OSHA's PELs are woefully outdated and insufficiently protective of worker health*."

– Occupational Safety and Health Administration (OSHA)

The Problem - Regulator

- Of the thousands of chemicals used in workplaces, OSHA has PELs for less than 500.
- Current scientific data suggests that, in many instances, the outdated PELs are not sufficiently protective of worker health.
- In 1989, OSHA attempted to update or set new PELS for 428 chemicals in a single rulemaking.
- Workers are essentially covered by the same PELs as they were 40 years ago.
- Since 1971, OSHA has been successful in establishing or updating PELs for only about 30 chemicals.
- OSHA had been working to create an occupational standard for respirable crystalline silica since 2003 and didn't introduce the new standard until 2017.

The Problem – Manufacturers



"Regulators have little understanding of industry"

"PELs can be breached by only a snapshot in time"

"OSHA is a bureaucratic process that does not represent the people"

"We've been doing this for decades and now it's up to me to read the OSHA website every week to ensure I'm not breaking a new law?"

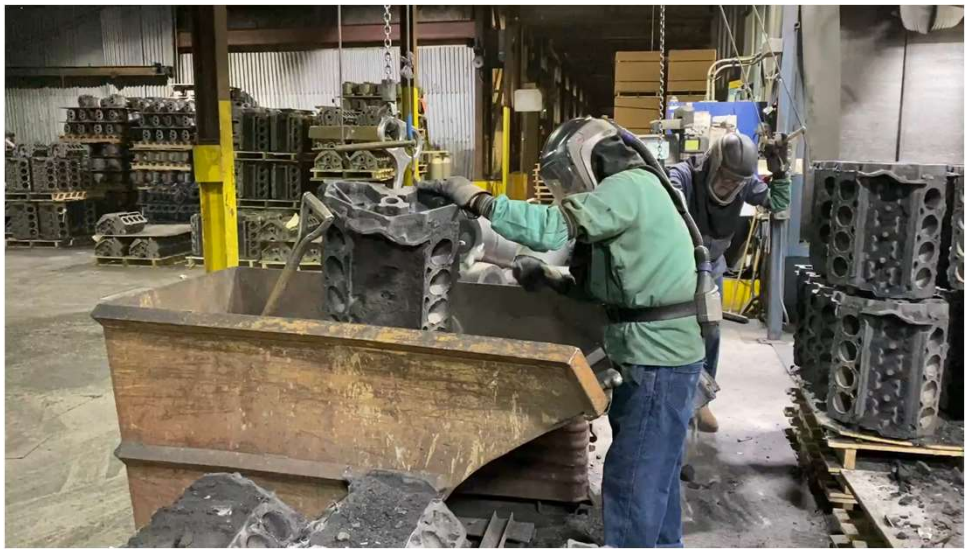
"I have never had an exposure-related health condition in my facility, but the PEL values still apply. The issue is more sophisticated than a non-industry-specific number"

IH Rule # 2

- When addressing toxicological risk, compliance, or controls, know the applicable reference values.

Recent Rulemaking Changes:

- Silica



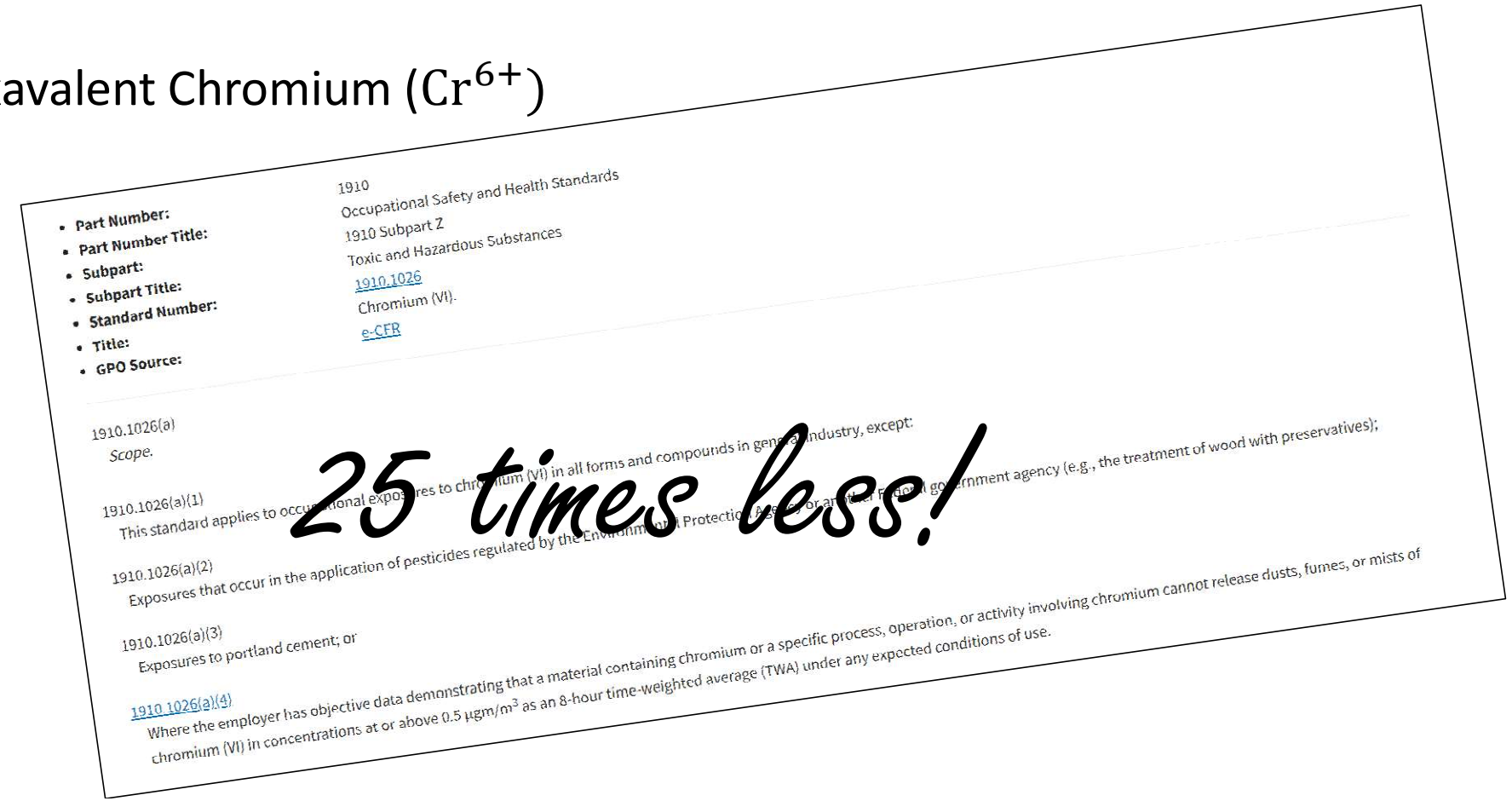
Rules for:

- Areas
- Housekeeping
- Recordkeeping
- Notification

- Medical Surveillance
- Control Priorities
- PPE
- Training
- Exposure Monitoring

Recent Rulemaking Changes:

- Hexavalent Chromium (Cr^{6+})



- **Part Number:** 1910
- **Part Number Title:** Occupational Safety and Health Standards
- **Subpart:** 1910 Subpart Z
- **Subpart Title:** Toxic and Hazardous Substances
- **Standard Number:** 1910.1026
- **Title:** Chromium (VI).
- **GPO Source:** e-CFR

1910.1026(a)
Scope.

1910.1026(a)(1)
This standard applies to occupational exposures to chromium (VI) in all forms and compounds in general industry, except:

1910.1026(a)(2)
Exposures that occur in the application of pesticides regulated by the Environmental Protection Agency or any other federal government agency (e.g., the treatment of wood with preservatives);

1910.1026(a)(3)
Exposures to portland cement; or

1910.1026(a)(4)
Where the employer has objective data demonstrating that a material containing chromium or a specific process, operation, or activity involving chromium cannot release dusts, fumes, or mists of chromium (VI) in concentrations at or above 0.5 $\mu g/m^3$ as an 8-hour time-weighted average (TWA) under any expected conditions of use.

25 times less!

Recent Rulemaking Changes:

- Beryllium

Anticipated Rulemaking Changes:

- **03/17/2015 -** OSHA Trade Release - OSHA extends comment period for managing hazardous chemical exposures in workplace
- **03/24/2016 -** OSHA National News Release - US Labor Department announces final rule to improve U.S. workers' protection from the dangers of 'respirable' silica dust
- **12/10/2018 -** OSHA Trade Release - U.S. Department of Labor Proposes to Revise Beryllium Standard for General Industry
- **09/25/2019 -** OSHA Trade Release - U.S. Department of Labor Approves New Respirator Fit Testing Protocols to Protect Workers from Airborne Contaminants

Anticipated Rulemaking Changes:

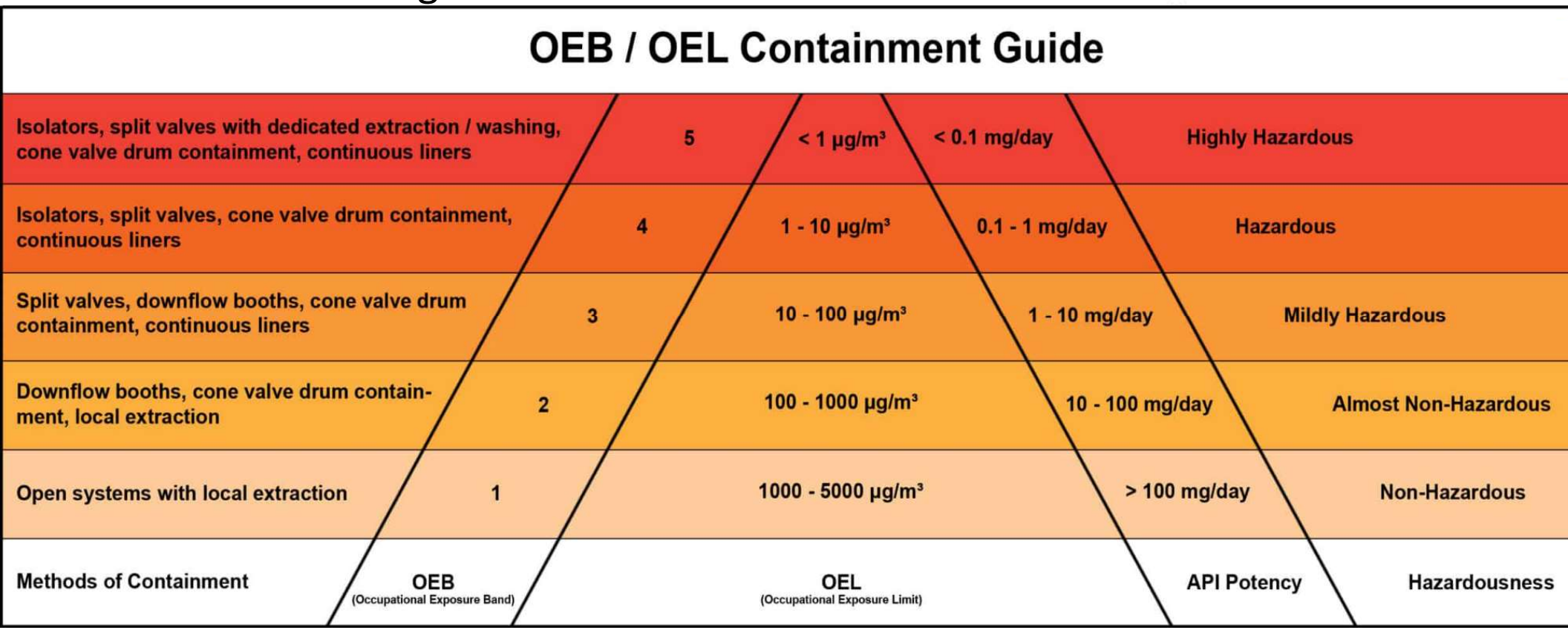
- **07/13/2020 -** OSHA Trade Release - U.S. Department of Labor Issues the Final Beryllium Standard For General Industry
- **02/05/2021 -** OSHA Trade Release - US Department of Labor's OSHA issues proposed rule to update hazard communication standard
- **10/26/2021 -** OSHA National News Release - US Department of Labor initiates rulemaking to protect workers, outdoors and indoors, from heat hazards amid rising temperatures
- **06/28/2022 -** OSHA National News Release - US Department of Labor begins rulemaking process to revise standards for occupational exposure to lead

IH Rule # 3

- IH observations and communication must contribute to guidance for employee and personal safety.

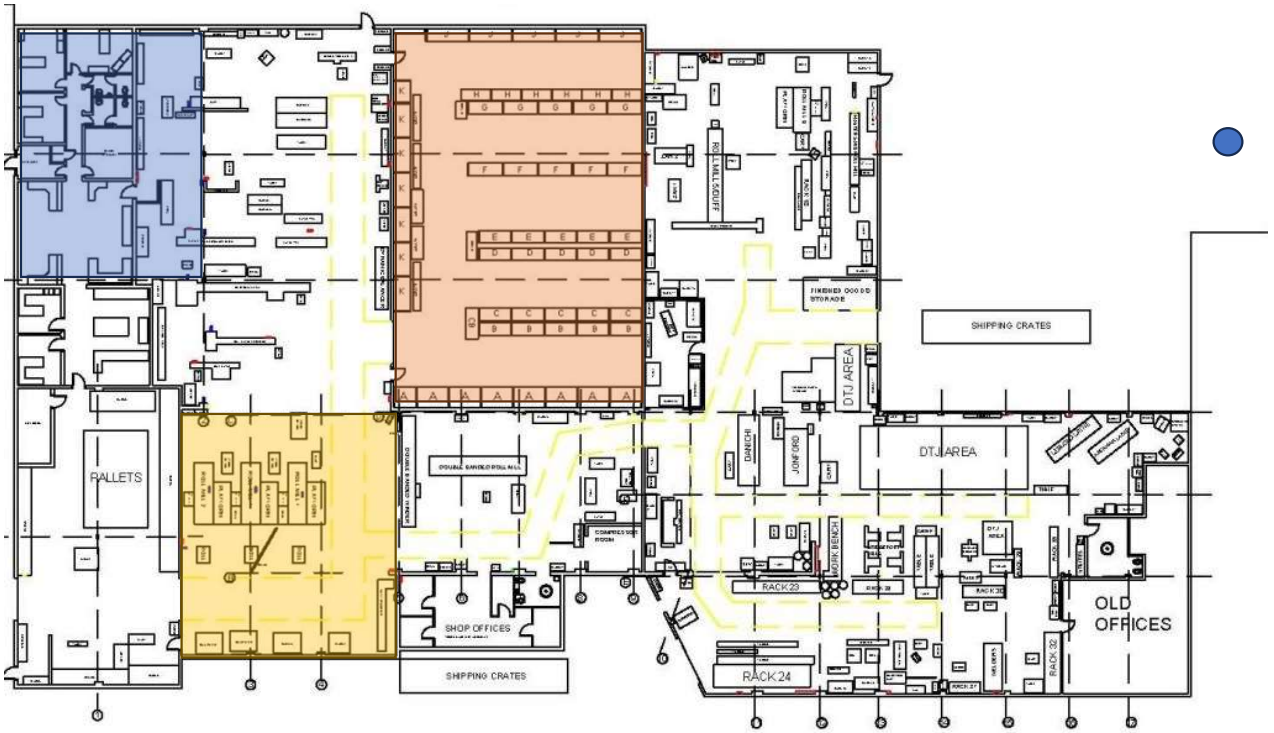
Alternative Approaches

- Hazard Banding



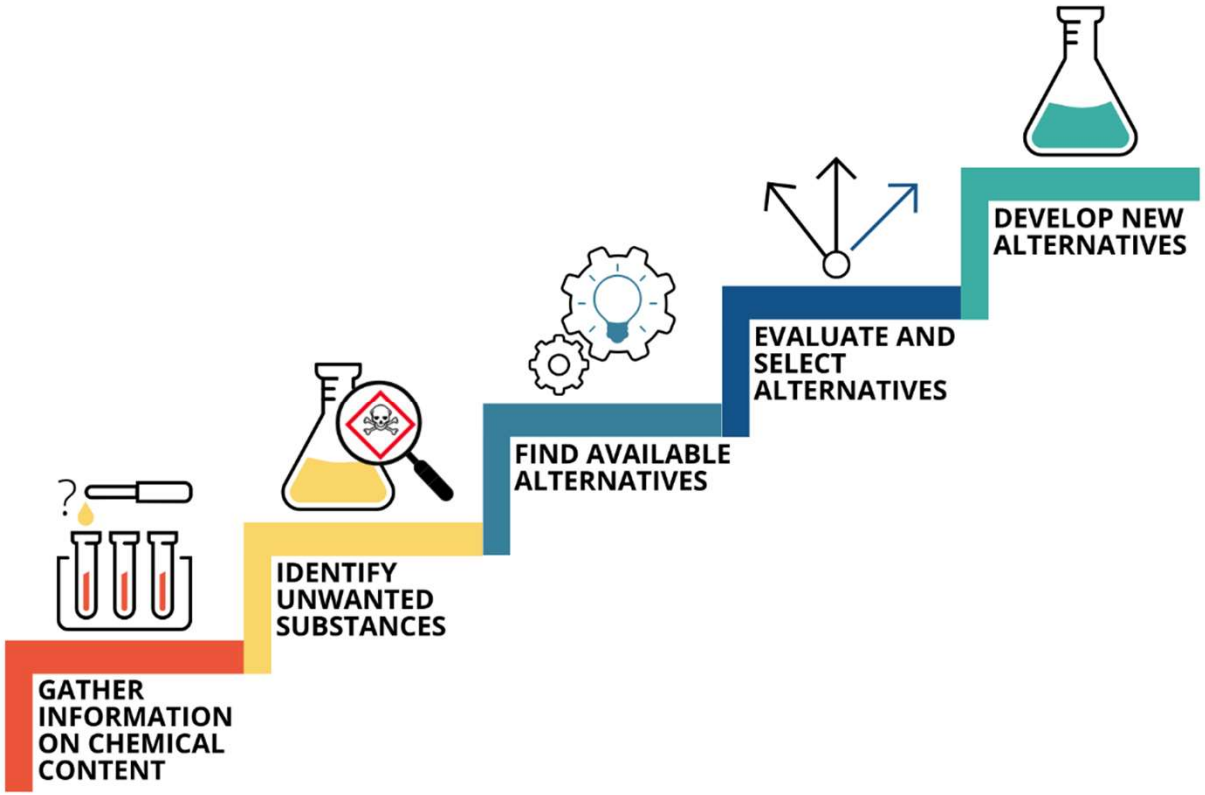
Alternative Approaches

- Task-Based Control



Alternative Approaches

- Informed Substitution



What Should You Do Right Now?

- Determine which contaminants you can reasonably anticipate.
- Make a plan to recognize when these contaminants are present.
- Regularly collect data on regulated contaminants you identify as present in the workplace.
- Make a concerted effort to reduce exposure as you refine and renew processes.
- Involve front-line workers in the efforts to understand and improve your processes.
- Keep records.
- Stay Connected!

Staying Connected:

- Industry associations
- Find a partner: IH, Safety Partner, Personal Network, Etc.
- Be aware of changes, talk with people who hear of these things.
- Talk to your customers about more than sales.
- Talk to your suppliers.
- Example of Supplier seeking help from industry association with EPA
- Add in websites that give pertinent information
  - https://www.osha.gov/topics/text-index
  - https://www.cdc.gov/niosh/
  - https://www.nsc.org/
  - https://www.google.com/

How Did You Respond?

How Did You Respond?

- The overwhelming majority of safety and industrial hygiene personnel use OSHA's PELs to monitor hazardous substances and as part of their overall employee respiratory protection efforts (85 percent).
- About one-third (35 percent) of the survey respondents use ACGIH® Threshold Limit Values (TLVs), which are voluntary and updated regularly
- About one-quarter (24 percent) use their own internal company exposure limits – almost always limits more stringent than OSHA's.

-ISHN, 2016

Take Heart!

- Complying with low exposure levels IS POSSIBLE!
- Not all controls are prohibitively expensive!
- Not all controls involve major capital improvement projects!
- Remember why we do what we do.

Thank You!

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KERAMIDA
GLOBAL SUSTAINABILITY | CLIMATE | EHS

BULLDOG BATTERY

KERAMIDA
GLOBAL EHS & SUSTAINABILITY SERVICES

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Mr. Engling is a Certified Industrial Hygienist (CIH) and holds a B.S. in Public Health from the Richard M. Fairbanks School of Public Health at Indiana University-Purdue University at Indianapolis and a M.S. degree in Occupational Safety Management from Indiana State University. Mr. Engling is an Authorized OSHA Outreach Trainer in both General Industry and Construction as well as a certified ISO 45001 Lead Auditor for Health and Safety Management Systems.

Mr. Engling has conducted hundreds of industrial hygiene investigations in a wide variety of environments, from foundries to schools; pharmaceutical manufacturing facilities to federal government offices. Additionally, Mr. Engling has academic and field experience with data analysis, air sample collection, data logging, microscopic analysis, and interpretation within laboratories. He has performed sample collection and utilized direct-reading particulate instrumentation at hundreds of foundries and manufacturing facilities on projects related to respirable silica exposure. Among other topics, Mr. Engling is experienced in ergonomic and heat stress hazard control and has served on focused committees for leading edge control development for both. He has been published in multiple formats, including periodicals, web outlets, and print books.

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