



Navigating the EHS Regulatory Horizon – Insights from a Safety Expert

Presented for RV Dealers Association

Comprehensive Safety & Compliance Solutions

KPA is the leading provider of Safety and workforce compliance software, services, and award-winning training content.

KPA enables clients to identify, remedy, and prevent safety and compliance issues.

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Your Presenter

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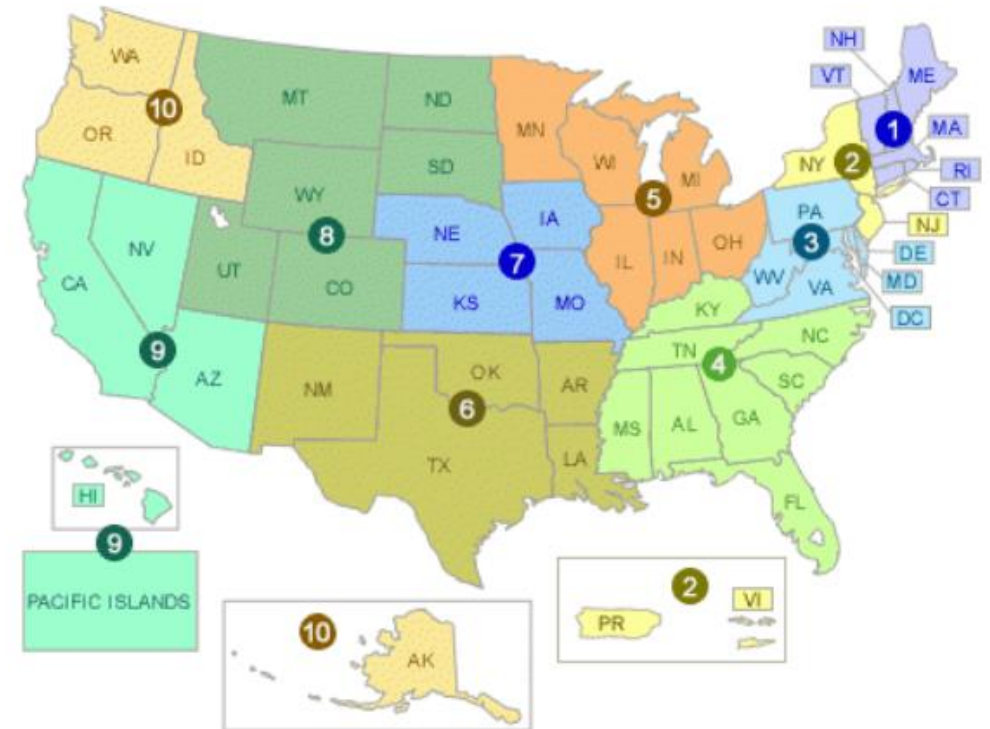
Best Practices (We will be covering these throughout the presentation)

Environmental Regulations

Regulatory Authority: Environmental

The following are the authorities having jurisdiction regarding environmental regulations in the United States

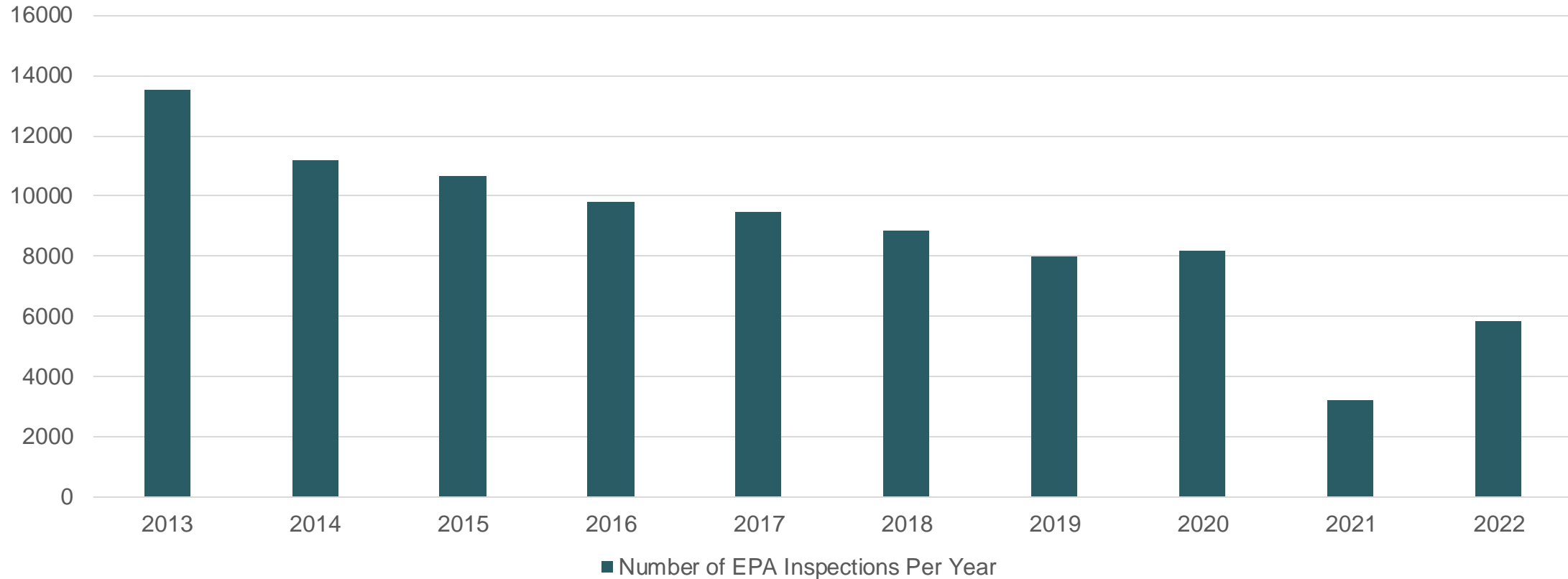
- Environmental Protection Agency
 - Established in 1970
 - The EPA's primary mission is to protect human health and the environment by enforcing regulations and conducting research related to environmental issues
 - There are 10 regional offices in the United States
- State Environmental Agencies
 - Each state has an environmental agency
 - <https://www.epa.gov/aboutepa/health-and-environmental-agencies-us-states-and-territories>
- Municipal Environmental Offices
 - Air offices
 - Sewer/Stormwater



Source: Environmental Protection Agency, <https://www.epa.gov/aboutepa/regional-and-geographic-offices>

EPA Compliance Monitoring Activities

Number of EPA Inspections Per Year



Source: Environmental Protection Agency, <https://www.epa.gov/enforcement/enforcement-and-compliance-annual-results-fy-2022-data-and-trends>

Common Violations

The EPA has listed the following as common offenses cited at businesses

- EPA's listed most common offenses
 - Illegal disposal of hazardous waste
 - Illegal discharge of pollutants to a water of the United States
 - The removal and disposal of regulated asbestos containing materials in a manner inconsistent with the law and regulations
 - Illegal importation of certain restricted or regulated chemicals into the United States
 - Tampering with a drinking water supply
- Most common offenses from regulatory notices collected by KPA
 - Failure to make a waste determination
 - Hazardous waste storage and labeling issues
 - Failure to create a Spill Prevention Control and Countermeasures Plan
 - Failure to obtain permits to install and operate (paint booths)

Environmental Horizon



2023 Rule updates to the National Emission Source Hazardous Air Pollutants rules



American Innovation in Manufacturing Act



Poly Fluoroalkyl Substances



Electronic Manifesting



NESHAP Background

In 2008 the EPA established the National Emissions Standards for Hazardous Air Pollutants (NESHAP)

What is the goal of the NESHAP rules?

The goal of the rule is to reduce emission of HAP metals from spray coating of:

- Motor vehicles and mobile equipment (e.g. auto collision repair)
- Miscellaneous metal and plastic parts (e.g. parts manufacturers)
- Reduce usage of methylene chloride paint strippers.



What are HAPs

Haps are Hazardous Air Pollutants. They are metals found in coatings which can cause health issues for the environment and human population. The HAPs identified in the rule are:

- Lead (Pb) <0.1%
- Nickel (Ni) <0.1%
- Cadmium (Cd) <0.1%
- Chromium (Cr) <1%
- Manganese (Mn) <1%

Exemption is possible if all coatings are HAP free

What is paint stripping with Methylene Chloride?

Methylene Chloride is a hazardous chemical that is a corrosive and a known carcinogen. It is a liquid that is applied to a painted surface. After about 10-20 minutes the paint will bubble and it can be scrapped off.

NESHAP

Applicability and requirements

- NESHAP 6H applies to:
 - motor vehicles: cars, light duty trucks, golf carts, vans and motorcycles
 - mobile equipment: heavy duty trucks, truck trailers, fleet delivery trucks, buses, mobile cranes, bulldozers, street cleaner, agricultural equipment, motor homes and other recreational vehicles
- Requirements

Notification

- Submitted before operational

Training

- Initial and retrain every 5 yrs
- Spray gun selection
- Spray minimization technique
- Booth & filter maintenance

Spray Guns

- High volume low pressure

Spray Gun Cleaning

- Enclosed gun washer

Spray Area

Full Vehicle

- Full roof
- 4 Complete walls or side curtains
- Filters are 98% Capture efficiency rating

Parts

- Full roof
- Three walls
- Filters are 98%



NESHAP 6H Rule Changes

The EPA updated its rules to the National Emissions Sources Hazardous Air Pollutants Rules in November of 2022

Electronic Submissions

After May 9th, notification submissions will be made in the EPA's Central Data Exchange's (CDA) Compliance & Emissions Data Reporting Interface (CEDRI)

Exemption

Exemption notices can be mailed to the area director stating the facility is exempt. Records will need to be maintained onsite to prove exemption.

3oz Cup Exemption

Repeatedly refilling and reusing a 3.0 fluid ounce cup or cup liner or using multiple 3.0 fluid ounce cup liners to complete a single spray applied coating operation as a means of avoiding rule applicability will be considered an attempt to circumvent the requirements of subpart HHHHHH.

American Innovation and Manufacturing Act of 2020

Phase down the production and consumption of HFCs by 85% below their baseline levels in a stepwise manner by 2036, starting with a 10% reduction in 2022.

- The AIM Act is an initiative by the EPA to “phasedown” hydrofluorocarbons (HFC) released to that atmosphere.
- HFCs are found in refrigeration, air conditioning, aerosols, fire suppression, and foam blowing sectors. They have global warming potentials (GWPs) a measure of the relative climate impact of a greenhouse gas.
- MVAC is the third largest source, accounting for 13% of global HFC emissions.
- 1 GWP has the same affect that 1 ton of CO₂ would have over 100 years
 - The larger the GWP the more potential the gas has the ability to warm the earth as compared to CO₂
- October 2023 - Technology Transitions Restrictions on the Use of Certain HFCs under Subsection (i) of the AIM Act

Sectors and Subsectors Proposed GWP Limit Compliance Date	Sectors and Subsectors Proposed GWP Limit Compliance Date	Sectors and Subsectors Proposed GWP Limit Compliance Date
Motor vehicle air conditioning – light-duty passenger vehicles	150	Model year 2025
Motor vehicle air conditioning – medium-duty passenger vehicles	150	Model year 2026
Motor vehicle air conditioning – heavy-duty pickup trucks /heavy duty vans	150	Model year 2026



AIM Act

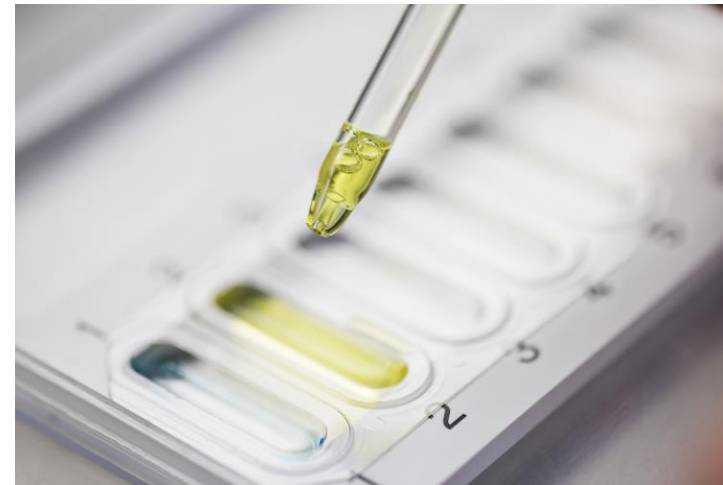
Where will facilities see impact?

- The EPA will start putting allowances on how much HFC can be imported by manufacturers which could put a strain on securing freon for recharging.
- The AIM Act will ban the import, production, and use of non-refillable refrigerant tanks and all tanks will need to become refillable tanks by 1/1/2025. This may mean:
 - To purchase freon there could be an empty tank exchange program
 - Facilities may be restricted on how much HFC containers they can have onsite
 - Validation of an EPA 609 certified person will become more of a validation to purchase freon
 - Refrigerant recovery and recycling equipment may need to be modified or upgraded to meet the needs of the phase down efforts.
 - If you do not have an R-1234yf machine, AIM provides small business tech grants for the purchase of approved refrigerant recycling equipment.
 - R-12 and R134a small aerosol canister may end in distribution

Per/Polyfluoroalkyl Substances - PFAS

EPA to put Strong Limits on Forever Chemical Production

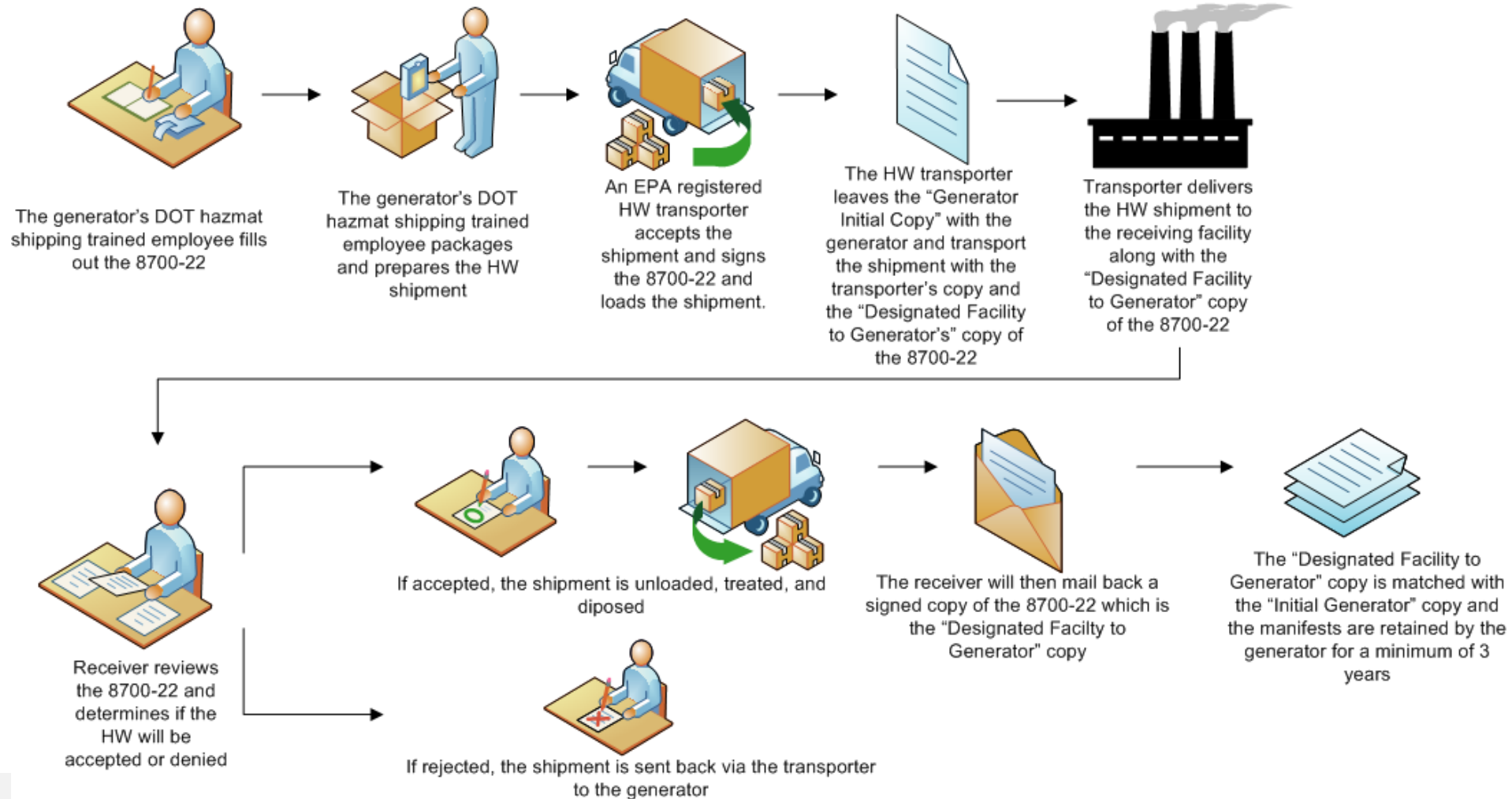
- What are PFAS
 - Substances which are formed in manufacturing using carbon and fluorine
 - Chemicals which break down very slowly
 - Found in water, air, soil, fish, animals, and humans
- Where are PFAS used?
 - Nonstick Cookware
 - Cleaning Materials
 - Waterproofing Materials
 - Waxes
 - Cosmetics
 - Fire Fighting Foams
 - Food Wrapping
- What we do not understand about PFAS
 - How to better and more efficiently detect and measure PFAS in our air, water, soil, and fish and wildlife
 - How much people are exposed to PFAS
 - How harmful PFAS are to people and the environment
 - How to remove PFAS from drinking water
 - How to manage and dispose of PFAS



Hazardous Waste Manifest Process

Hazardous waste manifests are required to be maintained for 3 years. Follow the process for matching your manifests correctly.

Traditional HW Manifesting Process



E-Manifesting

The EPA prefers the use of E-Manifesting but it is not yet required

The screenshot displays the RCRA e-Manifesting web application interface. At the top, there is a navigation bar with the RCRA logo and links for Home, Tools, Documentation, and Feedback/Report an Issue. A user profile for Scott is visible in the top right corner. Below the navigation bar, a breadcrumb trail shows the path: My Sites / VAR000503920 / e-Manifest Dashboard / e-Manifest. A progress bar indicates the manifest's status, with icons for DRAFT, PENDING, SCHEDULED, IN TRANSIT, and RECEIVED. The main content area is divided into several sections:

- General Information:** Includes a Manifest Tracking Number input field, a Manifest Type dropdown menu (currently set to Paper + Data), and a radio button selection for the status, with "Ready For Signature" selected.
- 1-5. Generator Information:** Features a "Search for Generator" button and a text input field for the generator name.
- 6-7. Transporter Information:** Includes an "Add Transporter" button.
- 8. Designated Facility Information:** Displays a table with the following data:

EPA ID Number	Name	Site Address
VAR000503920	MXI ENVIRONMENTAL SERVICES LLC	26319 OLD TRAIL ROAD, STATE ROUTE 679, ABINGDON, VA 24210

Below the table, there are input fields for Contact Phone (276-628-6636) and Extension (214___), and a "Can e-Sign?" checkbox which is checked.
- 9-13. Waste Information:** Includes an "Add Waste Line" button.

MeCl Proposed Ban

The EPA has proposed a ban on Methylene Chloride and Perchloroethylene

- April 20th, 2023 – EPA announced under TSCA that it is proposing a ban on most uses of MeCl
- June 8th, 2023 – EPA proposed ban on C₂CH₄
- Both substances were widely used in dry cleaning operations and parts degreasing
 - Chemical cleans but evaporates quickly which doesn't leave items in a wet condition
 - For parts cleaning, make sure to switch to a non-chlorinated brake cleaner (just keep the matches away)

2. Hazard(s) identification

Physical hazards

Flammable aerosols

Classification not possible

Health hazards

Skin corrosion/irritation

Category 2

Serious eye damage/eye irritation

Category 2B

Sensitization, skin

Category 1B

Carcinogenicity

Category 1B

Specific target organ toxicity, single exposure

Category 3 narcotic effects

Specific target organ toxicity, repeated exposure

Category 2

Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece. Chemical respirator with organic vapor cartridge and full facepiece if threshold limits are exceeded.

Health Regulations

Health Regulatory Authority

Who has the authority when it comes to outbreaks and protecting the public

- Health authority is given to the United States Department of Health and Human Services
 - Centers for Disease Control and Prevention
 - Food and Drug Administration
 - Administration for Strategic Preparedness and Response
 - Agency for Toxic Substances and Disease Registry
- State public health departments
 - <https://www.cdc.gov/publichealthgateway/healthdirectories/healthdepartments.html>
 - Airborne disease outbreaks (Covid19)
 - Spills affecting public resources
 - Reducing disease carrying pest infestations

Health Departments Protecting the Ground Water

“Dump Station” Regulations for the state of Indiana

- A sloped concrete apron with a drain at least 4 inches in diameter at the low point near the center of the pad.
- A tight-fitting drain cover (to prevent the escape of odors) equipped with a foot operated attachment or similar device, to open the drain cover without directly contacting waste material.
- An approved water outlet or hydrant adjacent to the dumping station for flushing down the drain pad after use.
- An approved atmospheric vacuum breaker attached to the water outlet to prevent possible back-siphonage into the water supply system. The vacuum breaker must be installed downstream from the shutoff valve and at the highest point.
- An adequate length of flexible hose for flushing the concrete apron and drain. A means must be provided to retract the hose when not in use so it does not contact the concrete pad or rest on the ground surface.
- The sanitary dumping station must be located at least 100 feet from any water supply well. The dumping station and associated water outlet must be at least 50 feet from and campsite or potable water outlet. If possible, locate the dumping station at a pull over near the campground exit for ease of access and disposal without blocking traffic.
- A sign must be posted at the sanitary dumping station stating that the adjacent water outlet is "UNSAFE FOR DRINKING"
- Water at the dumping station drain must discharge to an approved wastewater disposal system

Source: Indiana Public Health Department, <https://www.in.gov/health/eph/campground-inspection-and-approval-program/sanitary-dumping-stations/#:~:text=The%20dumping%20station%20and%20associated,and%20disposal%20without%20blocking%20traffic.>



Clean your Traps and Tanks on a Regular Schedule

“The United States Department of Health, Education and Welfare said in 1957 that “... there are no known chemicals, yeasts, bacteria, enzymes or other substances capable of eliminating or reducing the solids and scum in a septic tank” and according to EPA, this is still true.

No products have been verified by EPA to eliminate the need for routine maintenance, and some may actually accelerate system failure by allowing solids to clog the dispersal system; while the products may claim to "remove" sludge, they may just "move" sludge. Tanks should be checked routinely for solids and scum buildup. Sludge Removal may be needed more often for can be minimal, but not free. RV, Mobile Home and Boat waste systems than for single family septic systems, especially if your tanks are undersized”

Source: Environmental Protection Agency, <https://www.epa.gov/sites/default/files/2015-06/documents/rv-wastewater.pdf>

Mental Health

Examine the well being of employees – No regulatory requirements but it factors into prevention

YOU CAN HELP WORKERS BY

- Being Aware
- Identify what factors are making it harder for supervisors and employees to get their job done
- Show empathy
 - You are not alone
 - You recognize the stress
 - There is no shame in feeling anxious
 - Asking for help is important

Safe Workplace, **Good Headspace**

RECOMMENDATIONS FOR SENIOR MGT.

- Be transparent
- Avoid using negative or stigmatizing language
- Stay positive
- Listen without judgement
- Be understanding
- Offer assistance (*when applicable*)
- Adequately train supervisors

Safety Regulations

OSHA Inspection Tracker⁹

Total Inspections

126,215

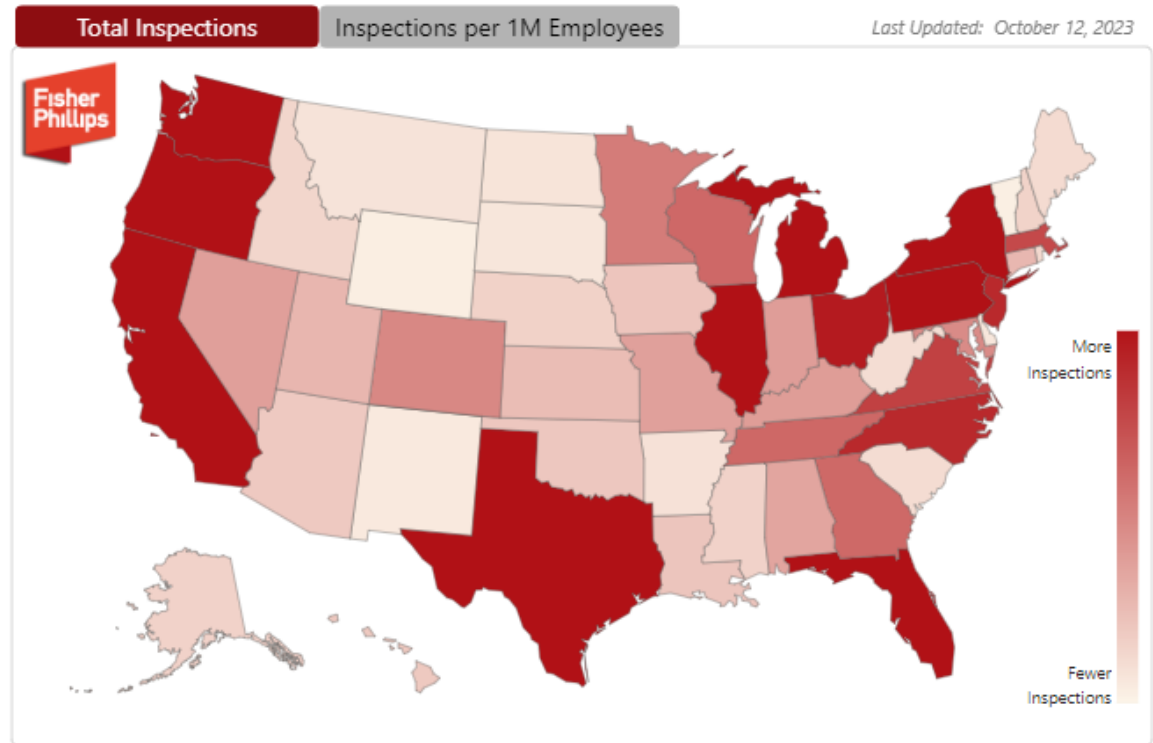
*Opened 1/2/2022 to 10/26/2023

Highest 7 Day Inspections

California
New York
Washington

Highest Inspections per 1M Employees

Alaska
Washington



State / Industry	Total Inspections	Inspections per 1M Employees	% of Total Inspections
Alabama	1,685	819.07	1.33%
Alaska	824	2649.52	0.65%
Arizona	998	331.84	0.79%
Arkansas	541	421.41	0.43%
California	12,718	752.89	10.07%
Colorado	2,235	804.33	1.77%
Connecticut	1,337	824.29	1.06%
Delaware	453	998.90	0.36%
District of Columbia	409	538.44	0.32%
Florida	4,587	511.30	3.63%
Georgia	2,833	609.51	2.24%
Hawaii	1,007	1735.91	0.80%
Idaho	761	962.68	0.60%
Illinois	5,290	896.63	4.19%
Indiana	1,837	589.12	1.45%
Iowa	1,075	691.50	0.85%
Kansas	1,231	883.51	0.97%
Kentucky	1,842	967.79	1.46%
Louisiana	1,077	574.65	0.85%
Maine	667	1082.27	0.53%
Maryland	2,171	803.00	1.72%
Massachusetts	3,433	959.34	2.72%
Michigan	6,250	1471.38	4.95%
Minnesota	2,474	856.83	1.96%
Mississippi	832	723.73	0.66%
Missouri	1,776	617.35	1.41%
Montana	505	1035.05	0.40%
Nebraska	836	818.00	0.66%
Nevada	1,792	1305.93	1.42%
New Hampshire	816	1222.84	0.65%
New Jersey	4,045	992.98	3.20%
New Mexico	384	464.05	0.30%
New York	6,025	661.98	4.77%
North Carolina	4,038	881.79	3.20%
North Dakota	493	1175.49	0.39%
Ohio	4,325	800.13	3.42%
Oklahoma	1,033	624.47	0.82%
Oregon	4,619	2424.29	3.66%
Pennsylvania	4,684	806.95	3.71%
Puerto Rico	1,532	1768.64	1.21%
Rhode Island	705	1451.21	0.56%
South Carolina	632	292.29	0.50%
South Dakota	446	1025.29	0.35%
Tennessee	2,851	911.77	2.26%
Texas	7,616	583.17	6.03%
Utah	1,358	832.01	1.07%
Vermont	283	955.76	0.22%
Virginia	3,588	899.68	2.84%
Washington	9,504	2741.12	7.52%
West Virginia	619	884.03	0.49%
Wisconsin	2,839	979.54	2.25%
Wyoming	304	1100.25	0.24%
Total	126,215	848.94	99.90%

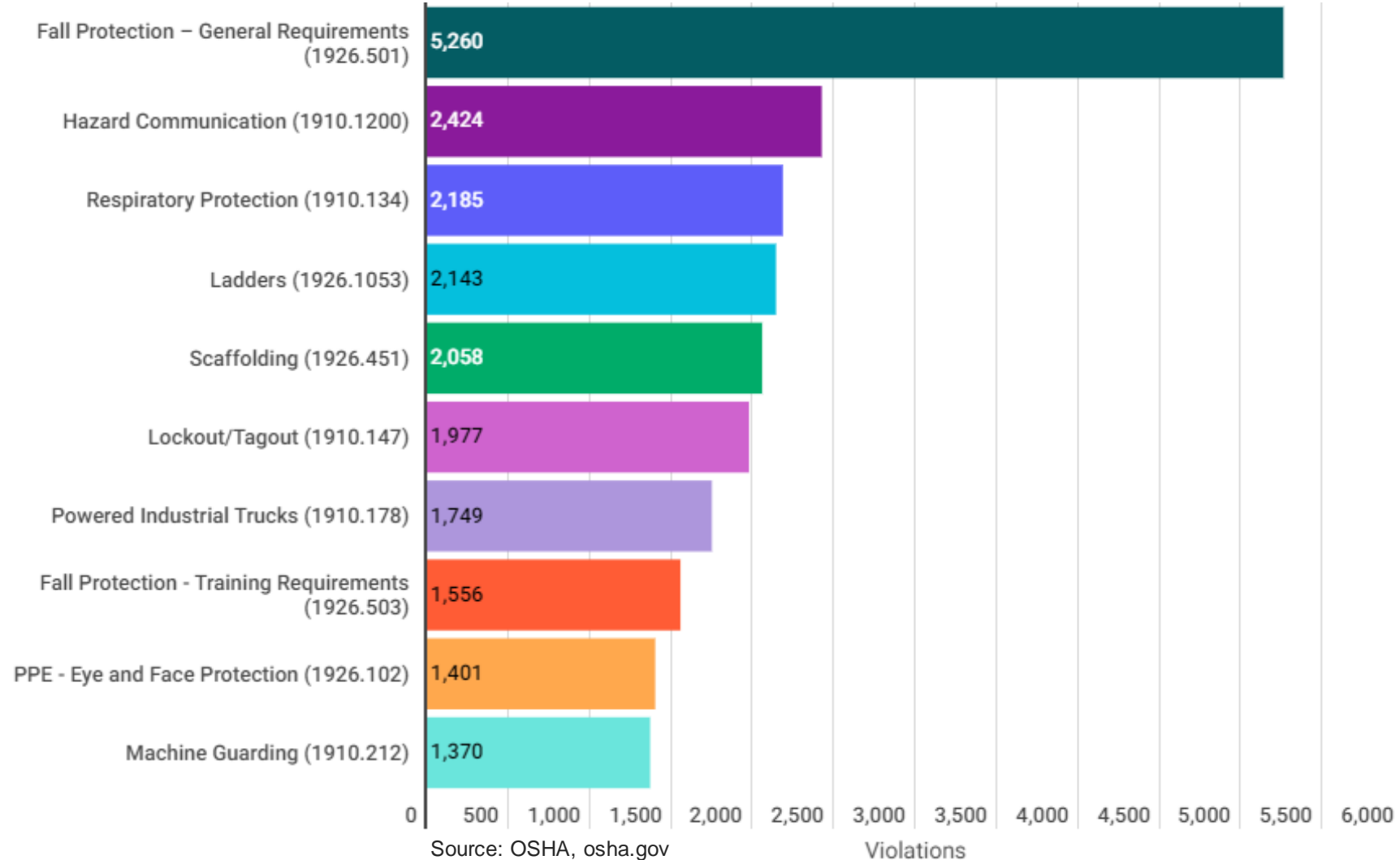
<https://www.fisherphillips.com/en/innovations-center/OSHA-Inspections-Tracker.html>

Inspections from 1/2/2023-10/12/2023



OSHA Citations

In fiscal year 2022, OSHA issued approximately 22,000 citations combined in the following categories:



National Emphasis Programs

National Emphasis Programs (NEPs) are temporary programs that focus OSHA's resources on particular hazards and high-hazard industries.

NEPs affecting Automotive	Other Industry NEPs	
Heat Illness Prevention Effective Date: 4/8/22 Expiration Date: 4/8/25	Lead Effective Date: 8/14/2008 Expiration Date: Industry Specific	Combustible Dust Effective Date: 1/30/2023 Expiration Date: Active until further notice
Fall Protection Effective Date: 5/3/23 Expiration Date: TBD	Crystalline Silica Effective Date: 2/4/2020 Expiration Date: Industry Specific	Amputations in Manufacturing Industries Effective Date: 12/10/2019 Expiration Date: 12/10/2024
Warehousing & Distribution Center Operations Effective Date: 7/13/23 Expiration Date: TBD	Hexavalent Chromium Effective Date: 2/23/2010 Expiration Date: Industry Specific	Trenching and Excavation Effective Date: 10/1/2018 Expiration Date: Industry Specific
	Process Safety Management Effective Date: 1/17/2017 Expiration Date: Industry Specific	Shipbreaking Effective Date: 3/7/2016 Expiration Date: Active until further notice

National Emphasis Program - Heat Illness Prevention

There is a proposal in the “Pre Rule” phase to create a federal standard regarding “Heat Illness Prevention.” Until the Federal Standard is adopted the General Duty Clause can be used for heat related citations.

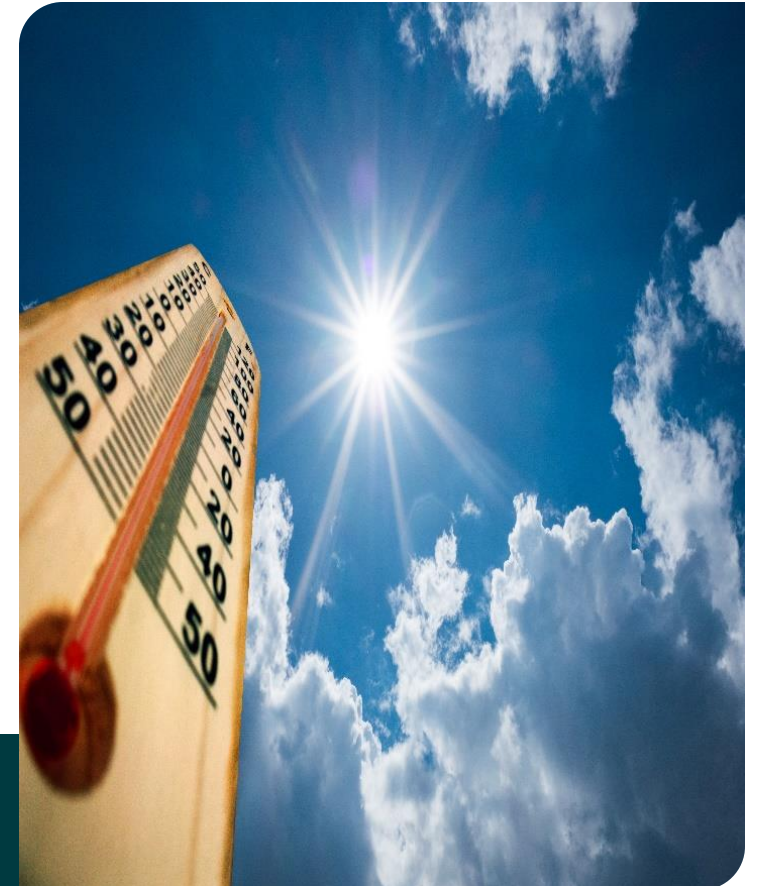
This standard could include the following:

- A written program/policy outlining the procedures which become effective when the heat index reaches a certain temperature
- Training for all employees on recognizing the hazards of the heat, your facilities policies on heat illness prevention, symptoms of heat illnesses, and how to prevent heat illnesses (Congress has asked for this training to be in person)
- Modification of your facility’s hazard assessment to include any hazard associated with heat illnesses and how the facility plans to reduce or mitigate the hazard.

The following states have already adopted heat illness prevention standards according to their state plans:

- California
- Oregon
- Minnesota
- Washington

Other states such as: Colorado, Michigan and Maryland currently have heat illness prevention standards in proposal



National Emphasis Program – Crystalline Silica

A national emphasis program is in effect regarding employee exposure to crystalline silica.

- Employees are usually exposed to crystalline silica in operations which involve sanding or blasting of concrete
- When the silica standards were first introduced with a permissible exposure limit, KPA & the NADA were able to provide a sampling study which proved that silica was below exposure limits in collision center operations
- The federal register now states:
 - “NADA retained a consultant to review testing methodology and final results and worked with Maine's OSHA Consultation Program to gather samples.....A body shop performing tasks in a manner consistent with that described in the NADA submission would be able to rely on these objective data to demonstrate that exposures do not exceed 25 $\mu\text{g}/\text{m}^3$ as an 8-hour TWA under any foreseeable conditions.”
- Based upon the information above, collision centers performing normal operations should be considered exempt from silica standards.



National Emphasis Program – Fall Protection

OSHA has released a new national emphasis program related to the employer's duty to provide fall protection.

- The NEP is effective for all industries May 1, 2023
- Construction and certain industries may receive programmed inspections
- Officers can conduct immediate inspections based on observances





- *Fall Protection is Required:*
 - *General Industry 4 feet*
 - *Construction Industry 6 feet*
- *All companies need to assess fall hazards*
- *Use the hierarchy of the controls*
- *If PPE is necessary, put a program together*

Fall Protection Recreational Vehicle Dealers

Falls from RV roofs is one of the leading concerns in the RV service industry

- The employer must provide a means of fall protection whenever an employee works near a leading edge which is 4 feet or greater to the next level
- KPA has worked with numerous RV dealerships on solutions for fall protection concerns

Hazard Scenario 3	
An employee climbs on top of a vehicle over 4 feet in height to perform work on a roof or a roof A/C unit. That employee is exposed to fall hazards on all four sides.	
Engineering Controls	
Install a custom built drive under platform guardrail system.	
	
Pro	Mobile adjustable rails supplying a quick option for roof access
Con	Platform could need constant adjustment
Use scaffolding	
	
Pro	Employee is protected by rails on three sides, and vehicle/building creates fourth barrier
Con	Takes up facility space/Needs constant adjustment/May not be able to reach needed area on roof



Source: Mass Transit,
<https://www.masstransitmag.com/rail/product/11151229/fall-protection-systems-rigid-rail-trolley-system>

Final Rulemaking: Improve Tracking of Workplace Injuries and Illnesses

OSHA published a final rule June 2023

- **Recreational Vehicle Dealers NAICS code is 441210 which is on the partially exempt list meaning that they are not required to maintain Injury and Illness Records (OSHA 300s) unless asked to do so**

Establishment	Required OSHA Forms
High risk industries with 20-249 employees at a single establishment	300A
Establishments with 100+ employees in the highest-hazard industries	Form 301 & 300 Log & 300A
Facilities with 250+ employees at a single establishment	300A

- Highest hazard industries to include Farming, Dairy, Food Production, Foundries, Ship Building, Grocery Stores, Department Stores, Delivery Services, Machine Shops, Metalworking, Nursing Care Facilities, Specialty Hospitals, etc.

IBI (Instance-By-Instance) Citations

OSHA issues updated guidance on IBI citations for high-gravity serious violations

PREVIOUS IBI GUIDANCE

- Specific to trenching, machine guarding, respiratory protection, permit-required confined spaces, LOTO, and other-than-serious violation of OSHA standards specific to recordkeeping
- Limited the use of IBI citations to only egregious willful citations
- **Beginning March 27, 2023, OSHA officials will have additional leeway when issuing IBI citations**

2023 IBI FACTORS

- Employer has received a willful, repeat, or failure to abate violation in the past 5 years
- Employer has failed to report a fatality, inpatient hospitalization, amputation, or loss of an eye
- Citations are related to fatality/catastrophe
- Citations are related to injury or illnesses that occurred as a result of a serious hazard

Emergency Response Update

Moved from pre-rule to the proposed rule stage

Title: Emergency Response



Abstract: OSHA currently regulates aspects of emergency response and preparedness; some of these standards were promulgated decades ago, and none were designed as comprehensive emergency response standards. **Consequently, they do not address the full range of hazards or concerns currently facing emergency responders, and other workers providing skilled support, nor do they reflect major changes in performance specifications for protective clothing and equipment. The agency acknowledges that current OSHA standards also do not reflect all the major developments in safety and health practices that have already been accepted by the emergency response community and incorporated into industry consensus standards.** OSHA is considering updating these standards with information gathered through an RFI and public meetings.⁷

- Notice of proposed rulemaking not scheduled until September 2023.

Proposed Rulemaking: Improve Tracking of Workplace Injuries and Illnesses

OSHA published a proposed rule on March 30, 2022

Establishment	Required OSHA Forms
High risk industries with 20-249 employees at a single establishment	300A
Establishments with 100+ employees in the highest-hazard industries	Form 301 & 300 Log & 300A
Facilities with 250+ employees at a single establishment	300A

- Highest hazard industries to include Farming, Dairy, Food Production, Foundries, Ship Building, Grocery Stores, Department Stores, Delivery Services, Machine Shops, Metalworking, Nursing Care Facilities, Specialty Hospitals, etc.

OSHA Proposed Rulemaking to Amend HCS

*OSHA proposes to modify HCS with UNGHS of Classification and Labeling of Chemicals Revision 7
Moved to final stage but no additional information in CFR*

PRIOR UPDATES TO HAZARD COMMUNICATION STANDARD

- Updated HCS in 2012 to align with Revision 3 of UNGHS
- Provided changes to:
 - Hazard Classification
 - Labels
 - Safety Data Sheets
 - Information and Training

PROPOSED REVISIONS

- Basic framework will stay the same
- Provide additional clarification of existing regulatory requirements
- Incorporate new hazard classes and categories
- Improve and streamline precautionary statements
- Facilitate international trade through increased alignment

Control of Hazardous Energy

OSHA wants to update the standard for current technology

Control of Hazardous Energy Standard (LOTO) has been relatively untouched since 1989.

- May 2019, OSHA issued a request for information (RFI) to solicit information from stakeholders and industry on updates or changes in relation to strengths and limitations of modern technology for the control of hazardous energy to protect workers.
- A notice of proposed rulemaking (NRPM) was anticipated for September 2022 but was never announced.
- The Spring Regulatory Agenda affirms OSHA has considered the received comments and is preparing to initiate rulemaking to update the LOTO standard. The agenda indicates a projected date of **July 2023** for an NPRM.

How do you control hazardous energy when it is started with a keystroke?

Electric Vehicles

KPA provided resources to aid in working safely with EVs

- Electric Vehicle Resources
 - Policies and Documents > EHS Documents > Electric Vehicle Resources
- Written Safety Program
- Signage
- EV Vehicle Preparedness Checklist
- Thermal Stability and Scanning Report
- Focus on Safety Aids (Shop Talks)

- Electric Vehicle General Awareness Training
 - Training > Your Compliance Training > Optional Training

- Plugging into Electric Vehicle Safety
 - [EV Safety Resources Link](#)



Electric Vehicles (EV)

Working on electric vehicles may present a new electrocution hazard to your shops. Hazards must be identified and mitigated.

Is there a hazard?

- Based on OEM procedures, is it possible for an employee to become electrocuted working on an EV?

Controlling the Release of Hazardous Energy

OSHA would recommend the use of Lock Out Tag Out Procedures

- Written procedures for de-energizing
 - OEM procedures
- Training of “Authorized Users”
 - EV certified technicians
- Training of “Affected Users”
 - Training all other employees not to enter an EV area
- Notification of repair work, do not attempt to start
 - Cones, stanchions, ropes, steering wheel cover
 - Key control
- Validation of de-energized equipment
 - Checking the energy charge
- Written procedures for re-energizing



Electric Vehicles (EV)

Working on electric vehicles may present a new electrocution hazard to your shops. Hazards must be identified and mitigated.

Is there a fire hazard?

- EV battery fires are very difficult to extinguish. It would require copious amounts of water

How would you respond to an electrocution? (EVs are a new hazard in the industry)

- Emergency Medical Services
 - Is the facility within 3-4 minutes of an emergency medical service?
 - If you choose to use them as your responder, have you coordinated with them to ensure they are your responder?
- In house medical responder
 - If there is no EMS in near proximity, OSHA interpretation has stated that a team of employees be trained in the following:
 - Basic First Aid/CPR
- Blood Borne Pathogens
 - Training an employee in “Basic First Aid” indicates that an employee can have a “reasonable exposure” to blood contact
 - Blood Borne Pathogens Program
 - Written program
 - Annual training
 - Employer provided cost to obtain the hepatitis B vaccine



KPA

Contact Us

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