



ENVIRONMENTAL HEALTH & SAFETY

For

Facility Managers, Business Managers and Operations Positions
within Michigan Public school districts





MATERIALS

Environmental Health & Safety Materials

<https://www.msbo.org/msbo-certification-class-materials/>

CLASS AGENDA

- Introduction
- Asbestos (AHERA)
- Lead Paint
- Mercury
- Radon
- Medical Waste
- Stormwater Permits
- SPCC & PIPP PLANS
- UST CLASS A/B/C Requirements
- Chemical Hygiene
- **BREAK**
- Hazardous waste
- Electronic waste & fluorescent lamps
- Indoor air quality & mold
- Drinking water
- Hazard communication
- Confined Space & Lock-out/Tag-out
- The reach of OSHA and **Closure**

Thank You for Joining www.archenvgroup.com

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ASBESTOS



ASBESTOS

- One person in district must be appointed and officially named AHERA “Designated Person”.
- “Annual Notifications” of ACM program specifics must be made to staff, occupants, parents and legal guardians.
- All maintenance and custodial staff must receive annual 2-hour asbestos awareness training.
- 6-month periodic surveillances are still required.
- 3-year reinspections are still required.
- New buildings and new construction require non-ACM use attestation.
- Leased and unused buildings owned by school district still must follow above AEHRA requirements.
- Short term workers (contractors) must be provided with management plans and asbestos locations.
- Asbestos records must be maintained and regularly updated in the district management plans.
- New(er) information about vermiculite.

LEAD PAINT (Renovator)



LEAD PAINT (Renovator)

- Impacts all pre-1978 facilities (rooms) occupied by children under six (6) years old. This regulation includes ALL private and public school districts.
- Like asbestos, paint in these locations are considered lead-based unless tested otherwise.
- Renovation to over 6 sf of lead-based paint must be supervised by a EPA certified/trained renovator and all work must be conducted using lead-safe work practices.
- All parents and legal guardians must be notified via an EPA approved pamphlet prior to all/each renovation over 6 square foot of lead-based paint.
- The EPA is taking a strong stance to this new regulation and is imposing \$34,000.00 per violation/per day citations.
- Inspection recommendations.

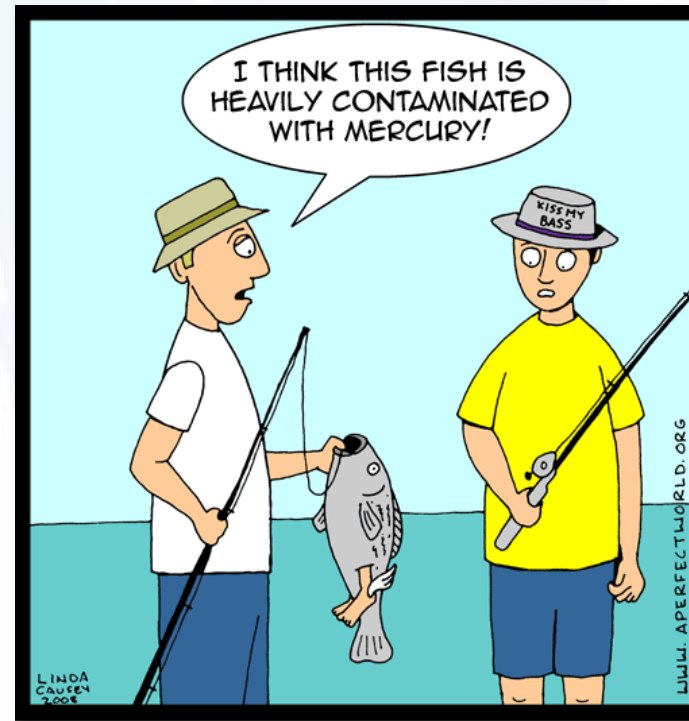
LEAD PAINT (Child Care)



LEAD PAINT (Child Care)

- Any NEW day care license in buildings constructed prior to 1978 requires a lead risk assessment.
- If you have a new day care director (“lead caregiver”) or you have a new day care address, it is likely that a new lead risk assessment will be required.
- A lead risk assessment is defined as an *“on-site investigation to determine the existence, nature, severity, and location of a lead-based paint hazard, and the provision of a report by the individual conducting the risk assessment explaining the results of the investigation and options for reducing lead-based paint hazards”*.

MERCURY



MERCURY

- State of Michigan, Public Act 376 of 2000 requires all schools to be mercury free.
- This includes mercury in all classroom and clinic settings.
- Maintenance/equipment use is NOT banned.
- Mercury is not banned nation-wide and is easily accessible.
- Mercury free schools do not mean that you will not have another mercury release/spill.
- Clean-up costs are significant and publicity is a sensitive issue.
- In-house clean-up issues and lack of guidance.
- Mercury-containing flooring issues.
- Sampling and clean-up monitoring.

RADON



RADON

- EPA recommends that all schools nationwide be tested.
- Test all frequently used rooms on and below ground level.
- Testing should occur during cooler months when the buildings is “closed/tight”.
- Sampling strategy should begin with short-term sampling followed by long-term sampling in locations about the action level of 4 pC/L.
- Long term testing results will indicate where and what remediation should occur.

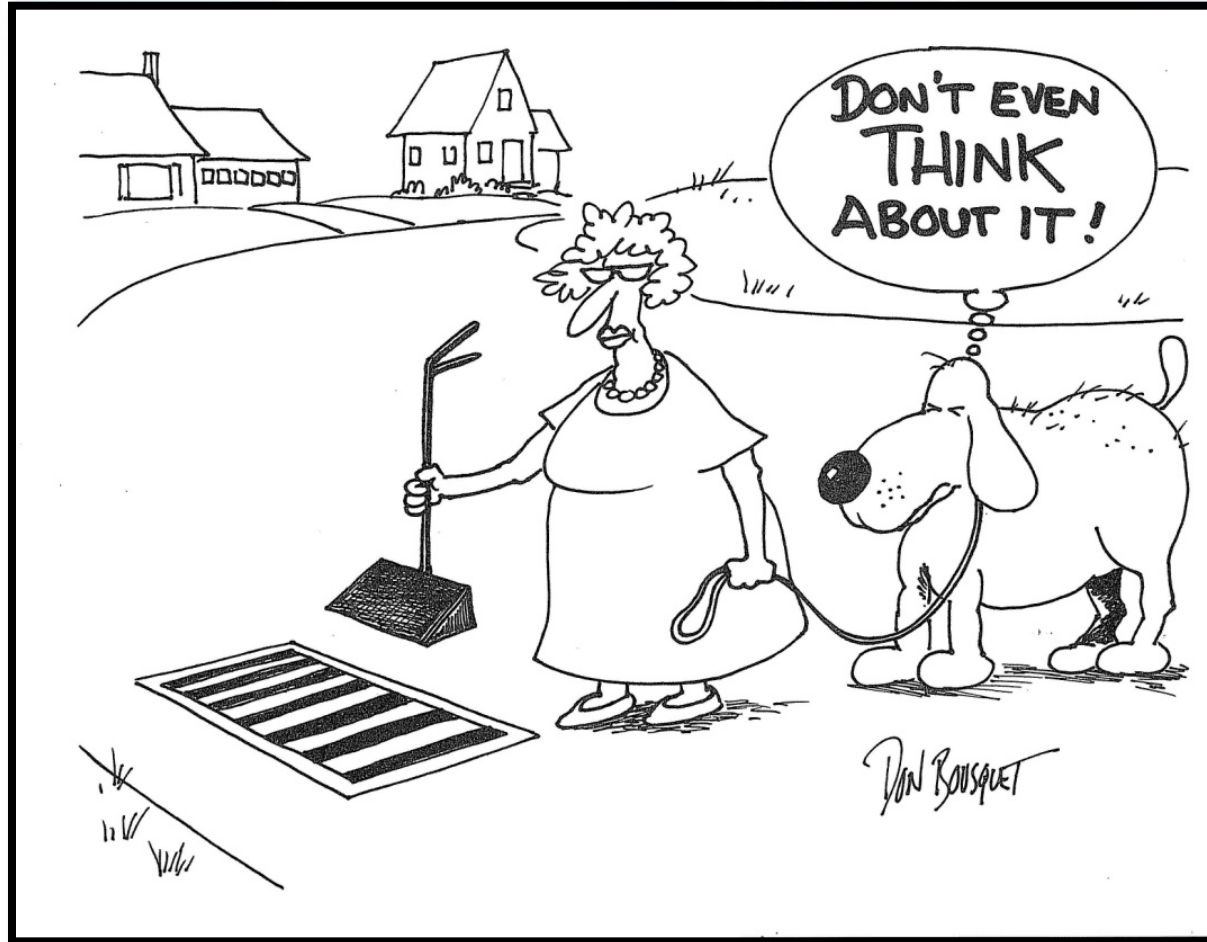
MEDICAL WASTE



MEDICAL WASTE

- All school districts in Michigan are required to be registered with the State of Michigan as a medical waste generator.
- A medical waste program and training is required.
- All facilities must be set-up with medical waste disposal containers and “sharps” containers.
- Medical waste is required to be disposed of quarterly or when the waste containers are $\frac{3}{4}$ full (whichever is first).
- Medical waste must be handled and treated separately than your general waste.

STORMWATER



STORMWATER

- Public entities, including public school districts located within the boundaries of one of the Urbanized Areas, are required to obtain a permit from the MDEQ to discharge stormwater through a Municipal Separate Storm Sewer System (MS4) to surface waters of the State.
- Public school districts have the following options for coverage: 1) Watershed General Permit, 2) Jurisdictional General Permit, 3) “Nested” under another permit, 4) Individual Permit

STORMWATER

- Watershed General Permits allow different entities to work together to develop and implement a “Watershed Management Plan”. This does require each participant to conduct the following:
 - Public Education Program
 - Illicit Discharge Elimination Program
 - Watershed Plan
 - Stormwater Pollution Prevention Initiative
 - Public Involvement & Participation
 - Post-Construction Stormwater Controls
 - Construction Site Stormwater Controls
 - Pollution Prevention & Good Housekeeping Program

STORMWATER

- Jurisdictional General Permit allows regulated entities to develop and implement their own program to meet the permit requirements. Your Stormwater Management Plan must include:
 - Public Education Program
 - Public Involvement & Participation Program
 - Post-Construction Stormwater Controls
 - Construction Site Stormwater Controls
 - Pollution Prevention & Good Housekeeping Program

SPCC & PIPP PLANS



SPCC & PIPP PLANS

- Spill Prevention Control & Countermeasure Plan
 - Since 1973 the federal EPA have used the SPCC Plans as a strategy to prevent oil/gas spills from reaching our nation's waters. Owners and operators of Aboveground Storage Tanks (ASTs) which store more than 1,320 gallons must have and implement an SPCC Plan.
 - SPCC Plans are preventive measures to assure that a spill from an AST is contained and countermeasures are established to prevent spills that could reach navigable waters. A spill contingency plan is required as part of the SPCC Plan if a facility is unable to provide secondary containment (e.g. berms surround the storage tank).
 - An SPCC Plan is unique to each facility, describing the particular configuration of the site's ASTs and even the site's USTs for sites exceeding 42,000-gallon capacity.
 - Common to all SPCC Plans is a listing of whether or not a site complies with the set of general requirements under 40 CFR 112.
 - The EPA periodically performs on-site inspections to assure compliance with the SPCC Plan regulations

SPCC & PIPP PLANS

- Pollution Incident Prevention Plan
 - Required by the MDEQ by Part 5 Administrative Rules (Spillage of oil and polluting materials) - 8/1/2001
 - Facilities are required to provide preventive measures for the management of a lengthy list of polluting materials if used or stored above the “Threshold Management Quantities” (TMQs).
 - These Plans are intended to prevent releases of polluting materials to surface waters or ground waters of the State.
 - No later than 8/1/2003, the owner or operator of any on-land facility that receives, uses, processes, manufacturers, stores, or ships polluting materials in excess of the TMQs shall develop, maintain and operate in accordance with a PIPP.

SPCC & PIPP PLANS

- Pollution Incident Prevention Plan
 - Polluting Material is defined as: oil, salt, any material specified in table 1 in R 324.2009 and any compound that contains 1%, or more, by weight of these materials.
 - TMQ mean any of the following:
 - For salt in solid form used or stored at 5 tons or more.
 - For salt in liquid form used or stored at 1,000 gallons or more.
 - For oil used or stored in AST or any container(s) that has a capacity of more than 660 gallons.
 - For all other polluting materials at any discrete outdoor use or storage location at or above 440 pounds.
 - For all other polluting materials at any discrete indoor use or storage location at or above 2,200 pounds.

UST CLASS A&B SERVICES



UST CLASS A&B SERVICES

- All (petroleum-containing) UST facilities are required to designate a Class A, Class B, and Class C operator to the facility.
- The Class A Operator's primary responsibility is to operate and maintain the UST system. Successful completion of a State Certified Exam is required.
- The Class B Operator is primarily responsible for the day-to-day operations and for implementing the applicable requirements and standards at the facility.
- The Class C Operator is on-site daily and is responsible as the initial responder to handle emergencies and alarms pertaining to a spill or release. This operator is typically an employee who controls or monitors the dispensing or sale of product. The Class C personnel must be trained by a Class A or B Operator.

CHEMICAL HYGIENE



CHEMICAL HYGIENE

- A chemical hygiene plan is a written program stating the policies, procedures, and responsibilities that serve to protect employees from the health hazards associated with the hazardous chemicals used in that particular place.
 - OSHA's Occupational Exposure to Hazardous Chemicals in Laboratories Standard specifies the mandatory requirements of a CHP to protect persons from harm due to chemical hazards.
 - It applies to school employees who work in laboratory settings; indirectly it may serve to protect students.
 - The science department chairperson, and/or chemistry teacher(s) are typically responsible for developing the CHP for the school.

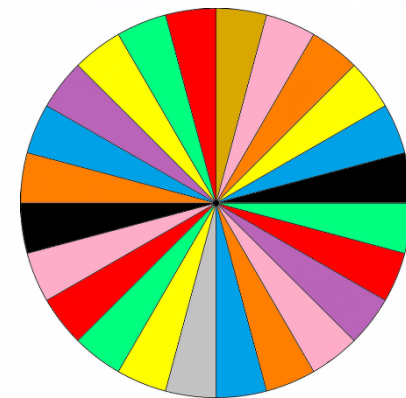
CHEMICAL HYGIENE

- What is typically in a CHP?
 - Defined standard operating procedures relevant to safety and health considerations for each activity involving the use of a hazardous chemical.
 - Criteria to use to determine and implement control measures to reduce exposure to hazardous materials.
 - Ensure lab hoods are installed and functioning properly.
 - Requirement of Hazard Communication
 - Training Requirements
 - Requirements for medical consultation and medical examination.
 - Appointment of CHP Chemical Hygiene Officer.
 - Provisions for yearly re-evaluation of the CHP.

BREAK



When we
return, we'll
spin the
wheel for a
gift card
prize!



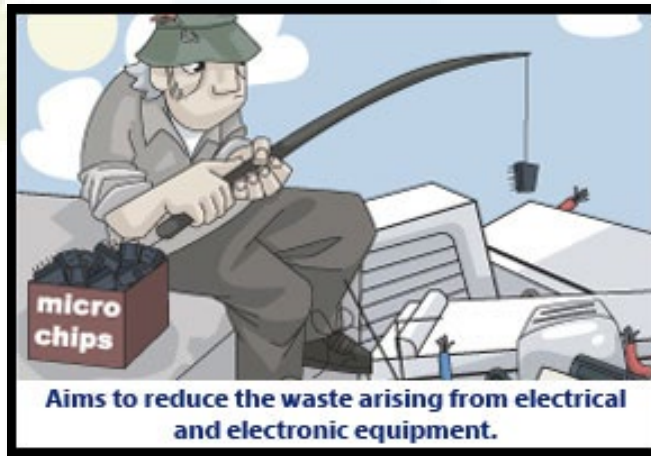
HAZARDOUS WASTE



HAZARDOUS WASTE

- Schools have many hazardous waste streams, including those found in the Operations and Maintenance Department. All school district generate hazardous waste which are STRICTLY regulated.
- Others in district include science rooms, technology (graphic arts, printing), industrial arts (shops), and fine arts.
- Hazardous Wastes are defined as a substance that is corrosive, ignitable, reactive or toxic...that is a lot of stuff.
- Understanding EPA site ID numbers, manifesting and generator status.
- Recordkeeping is STRICT and must be maintained for three years in the building of generation.
- Most Common Concerns: chemistry lab packs, used oils and paints, accumulated biologicals, vendor changes (cleaning chemicals), storage violations, emergency spill prevention, proper labeling and stormwater policy.

E-WASTE & LAMPS



E-WASTE & LAMPS

- Electronic Waste (E-Waste in Schools)
 - Audio/Visual Equipment
 - Desktop Computers & Computer Equipment/Parts
 - Laptop Computers
 - Monitors
 - Calculators
 - Cameras
 - Cell Phones
 - Circuit Boards
 - Copiers
 - Fax Machines
 - Microscopes & Telescopes
 - Modems
 - Printers
 - Telephones and Telephone Systems
 - Televisions
 - Small Electronic Equipment such as Radios, MP3 Players and Gaming Consoles

E-WASTE & LAMPS

- The EPA estimated that electronic waste comprised two percent of our landfill space in 2007 at 2.5 million tons.
- The average life of computer equipment/technology is three (3) years or less.
- Major concern is heavy metal: barium, cadmium, mercury, lead, silver, palladium, rhodium and platinum. EPA estimates the average cathode ray tube in older computers is around 4 lbs and 2 lbs in newer computers.
- Donating and Recycling
- Research your recycler. 100% recycling certificate and off-shore disclaimers.

E-WASTE & LAMPS

- ALL fluorescent lamps contain a small amount of mercury...including green-tip lamps.
- ALL fluorescent lamps are considered Hazardous Waste but can be treated as Universal Waste in Michigan...which requires certain procedures.
- Disposal of your fluorescent lamps into your regular trash dumpster IS citable by the MDNRE. The MDNRE does make random inspections of school district sites.
- Example: It will take 250 CFLs to equal the amount of mercury found in a personal thermometer, yet we spend thousands of dollars cleaning up mercury thermometer spills.

INDOOR AIR QUALITY & MOLD



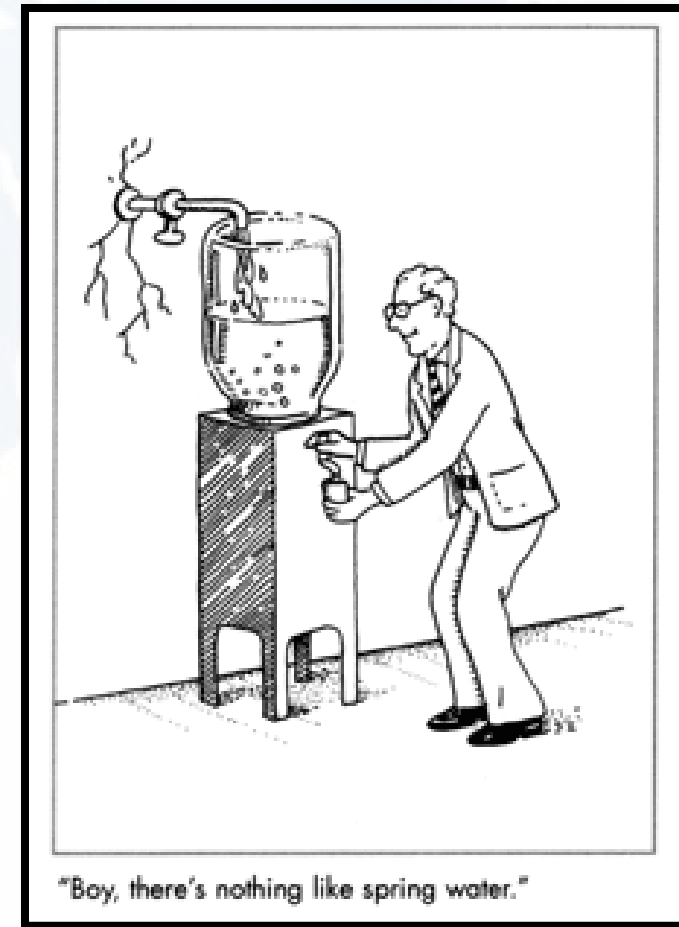
INDOOR AIR QUALITY & MOLD

- No U.S. regulatory agency has issued mandatory regulations regarding IAQ or mold issues.
- IAQ industry standards follow procedures issued by the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE).
- Mold industry standards follow procedures issued by the Institute of Inspection Cleaning and Restoration (IICR) called Standard and Reference Guide for Professional Mold Remediation and;
- EPA Guidance Document titled “Mold Remediation in Schools and Commercial Buildings”

INDOOR AIR QUALITY & MOLD

- American Academy of Allergy, Asthma and Immunology/National Allergy Bureau states that only individuals extremely sensitive to molds will experience symptoms from a mold spore concentration greater than 4,224 spores/m³.
- Black Mold (Stachybotrys) vs. The World

DRINKING WATER



DRINKING WATER

- Most schools do not have to sample under the Safe Drinking Water Act because they do not meet the definition of a Public Water System.
- The lead ban of 1986 requires that only lead-free materials be used in new plumbing and plumbing repairs.
- The Lead Contamination Control Act of 1988 is aimed at the identification and reduction of lead in drinking water at schools and childcare facilities (implementation is state by state).
- The Lead and Copper Rule of 1991 was written to minimize the corrosivity and amount of lead and copper in water supplied by public water systems.
- EPA recommendations for lead sampling in schools.
- Eliminating banned water coolers.

CLEAN DRINKING WATER ACCESS ACT

The governor signed the Clean Drinking Water Access Act 154 which was effective on October 24, 2023. Additional legislation for licensed childcare centers (Act 155 and Act 173). If a childcare center is within a school district, the childcare center will be compliant with Act 154.

Significant Dates:

- April 24, 2024
 - EGLE is required to have a final plan template, guidance, and training finalized
- January of 2025
 - Schools must have completed their plan, maps, and sampling schedule.
 - Develop a Drinking Water Management Plan. A template will be available after April 24, 2024.
 - Compile a list or map of all the filtered consumable fixture locations. The type of fixture must also be noted. Bubbler, cooler, hydration station, or faucet. The consumable locations must have fixture ID code.
 - Compile a list or map of all the non-filtered non-consumable fixture locations. These are the fixtures that will be labeled as non-consumption location.
 - Prepare a schedule for annual lead sampling of the filtered consumable fixture locations, water sampling, and testing of the filtered water at each filtered bottle-filling station and filtered faucets.
 - A School shall not install a drinking fountain unless the drinking fountain is a filtered bottle-filling station.

CLEAN DRINKING WATER ACCESS ACT

Significant Dates:

- June 30, 2026
 - Districts must have filters installed, bubblers that will not be filtered must be removed, and consumption/non-consumption signs posted.
 - Filters must have a light or other device to indicate filter cartridge replacement status (for filtered bottle-filling locations).
 - Meet NSF/ANSI standard 53 for lead reduction and NSF/ANSI standard 42 for particulate removal.

Action Level

The EPA Action Level for lead is currently greater or equal to 15 ppb. Effective June 30, 2026, the Michigan Clean Drinking Water Access Act 154 Action Level are the following:

- For water testing that indicates the presence of lead at a concentration of 1 ug/L (1 ppb) or more but not more than 5 ug/L (5 ppb), the district must conduct corrective actions and resampling.
- For water testing that indicates the presence of lead at a concentration of more than 5 ug/L (5 ppb), the school must immediately shut off or otherwise render the water outlet inoperable.

CLEAN DRINKING WATER ACCESS ACT

Funding:

- Funding determination is still in process. EGLE is hopeful that guidance on the funding will be available by April of 2024.
 - Funding will be available to “assist” the district with one-time acquisition and installation funding. EGLE will provide one hydration station per 100 students. It is unknown if EGLE will assist with acquiring and installing Point of Use filters.
 - The funding will continue to “assist” with the maintenance/replacement of filters, sampling labor, and laboratory costs.
 - There are many unknowns regarding the funding will be available. AEG has submitted multiple questions to EGLE requesting information related to this topic.

NOTE:

Management Plan development, filter installation, and signage should be paused until after the April 2024 EGLE guidance is released and information about funding is provided.

HAZARD COMMUNICATION



HAZARD COMMUNICATION

- Hazard Communication (Michigan Right to Know) is required for ALL employers (including school districts)
- Basic requirements involve training, labeling, signage and SDS library.
- Many misunderstandings of compliance requirements.
- Hazcom is THE most cited OSHA regulation and the regulation with more errors as observed by AEG.
- Within the past 5 years we have changed to a “universal” labeling system. You should make sure you are still in compliance.

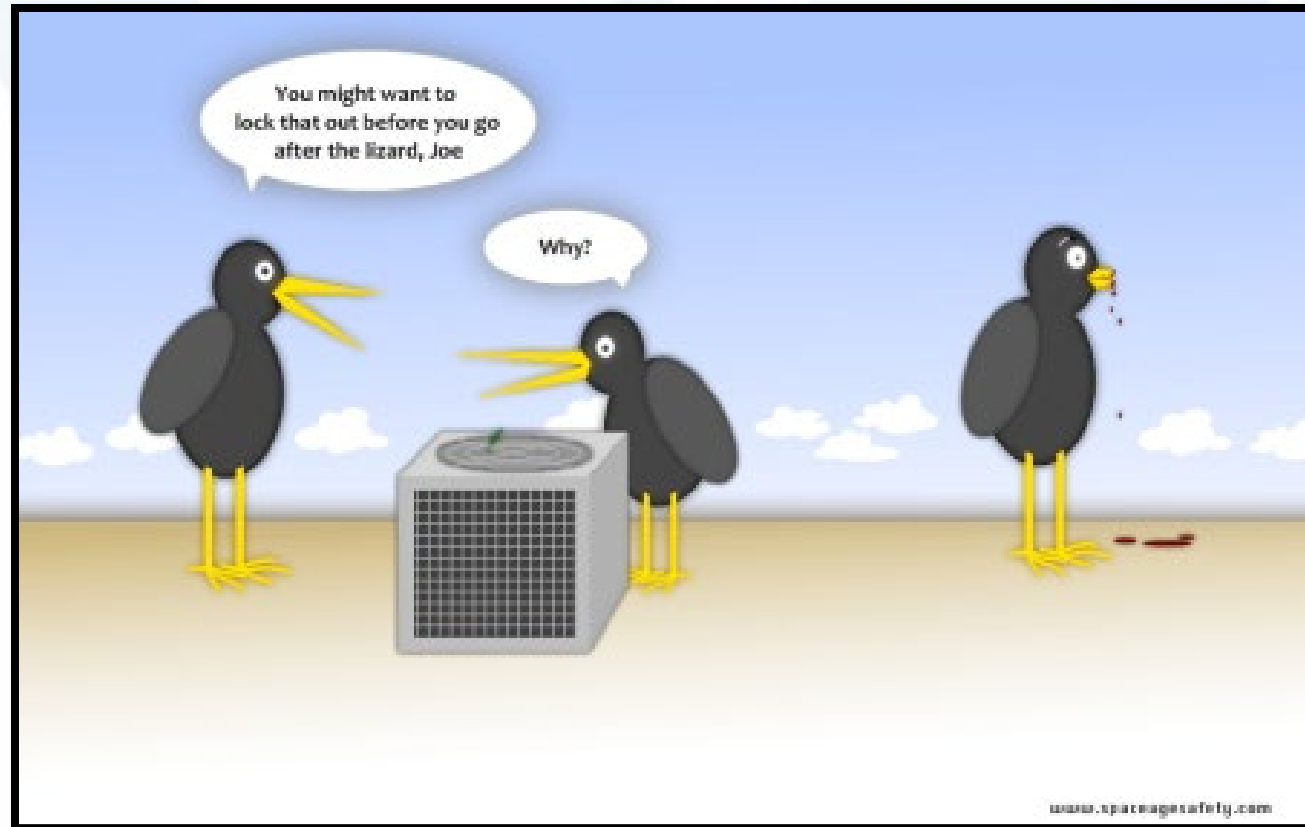
CONFINED SPACE



CONFINED SPACE

- OSHA 1910.146 requires all confined spaces be evaluated to determine if permit and procedures are required for safe entry.
- Confined Space Definition:
 - Is large enough and so configured that an employee can bodily enter and perform assigned work;
 - Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
 - Is not designed for continuous employee occupancy.
- Physical evaluation and atmospheric evaluation, program development and labeling required.
- Schools are NOT excluded from this regulation.

LOCK-OUT/TAG-OUT



LOCK-OUT/TAG-OUT

- OSHA 1910.147 requires the lock-out/tag-out of unexpected energy when servicing/maintaining machines and equipment.
- A Lock-out/Tag-out Program must be developed for your district, lock-out/tag-out equipment purchased, and employees trained.
- Lock-out/Tag-out is widely used as a practical procedure for re-defining Permit Required Confined Spaces.
- Schools are NOT excluded from this regulation.

THE REACH OF OSHA



The Reach of OSHA

- Personal Protection Equipment (PPE)
- Respiratory Protection
- Medical Surveillances
- Health & Safety Plan
- ...the remainder of “Environmental Dirty 30”

Finalize Credit for Attendance

New Process: The MSBO Evaluation is your record for attendance.

Please complete by January 22

- ✓ Receive an email from survey monkey for the MSBO evaluation. Your evaluation will be your record for attendance.
- ✓ Receive e-mail from MOECS-noreply@michigan.gov to fill out an evaluation for SCECHs.