

The Safety Net

Eastern Virginia Medical School's Environmental Health and Safety Newsletter
https://myportal.evms.edu/research/safety/environmental_health_and_safety

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Special Interest Articles:

- VOSH Site Inspections
- EPA Waste Generator Improvement Rule
- Compressed Gas Cylinder Safety

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Earth Day 2022 – Invest In Our Planet

In January of 1969 there was a massive oil spill in Santa Barbara, California. Senator Gaylord Nelson along with the support of Denis Hayes, a young activist, used the outrage from this event to ignite the Earth Day movement. Hayes saw the opportunity to involve all Americans and built a staff of 85 people to promote events to educate others about Earth Day and to also include a wide range of organizations including faith groups, college groups and others. On April 22, 1970 20 million Americans were inspired to take to the streets, parks and auditoriums to demonstrate against the environmental and health impacts of the industrial development of the previous 150 years. Each year on April 22nd Earth Day is recognized to mark the anniversary of the birth of the modern environmental movement on this day in 1970.

Earth Day 1970 provided a rare political alignment within the Republicans and Democrats, urban and rural dwellers, rich and poor. This vital day led to the creation of the Environmental Protection Agency (EPA). The EPA then went on to create the National Environmental Education Act, the Occupational Safety and Health Act, the Clean Air Act, the Clean Water Act, Endangered Species Act, and the Federal Insecticide, Fungicide, and Rodenticides Act. In 1990 Earth Day went global and is now celebrated by more than a billion people each year.



Earth Day 2022’s theme, Invest In Our Planet, has three aims. The first aim of this year’s theme is to push business leaders to get on board with more sustainable practices. Studies have shown a direct correlation between sustainable business practices, share prices, and business performance. Business leaders need to know that there is no longer a decision between going green and growing long-term practices. The second aim highlights the importance of governments being the force to empower green business practices. Governments provide incentives and public/private partnerships that help transform and build the green economy. The third aim focuses on individual citizens and the impact we can make. We may not feel as if we can make much change on our own; but whether it is at a neighborhood cleanup, at the voting booths, or at a rally, we can make our voice heard. We need to invest in our planet, because it is the only home we have.

EARTHDAY.ORG. (2021, July 2). *The History of Earth Day*. Earth Day. Retrieved March 24, 2022, from <https://www.earthday.org/history/>

EARTHDAY.ORG. (2022, March 9). *Earth Day 2022 | Invest in Our Planet™*. Earth Day. Retrieved March 24, 2022, from <https://www.earthday.org/earth-day-2022/>

VOSH Site Inspections

In 2021 a Virginia Occupational Safety and Health inspection was conducted in two research laboratories in response to an anonymous complaint. Upon their inspection, VOSH cited EVMS for improper labeling of two secondary containers of solvents, but no penalty was imposed. Per the citation, “the employer did not ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with either the product identifier **and** words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals”.

Now is an excellent time to revisit your labeling practices in the lab and ensure that secondary containers are properly labeled with the name of the product and all hazards associated with the chemical. The associated hazards can be identified by using words, pictures, symbols, or any combination of the three. If you should have any labeling questions, please contact EH&S.

EPA Hazardous Waste Generator Improvements Rule

The hazardous waste generator regulatory program was originally promulgated in 1980. Over the course of time, the Environmental Protection Agency (EPA), through experience with implementing the program, working with states and other stakeholders, and conducting program evaluations, had become aware of ambiguities, inconsistencies, gaps, and a lack of flexibility in the regulations that it has addressed in this rulemaking to create a program that is more effective in protecting human health and the environment. This final rule includes over 60 changes to the hazardous waste generator regulations that clarify existing requirements, increase flexibility, and improve environmental protection. These changes also reorganize the regulations to make them easier to follow and make certain technical corrections.

One of the changes is revisions to the labeling requirements for containers and tanks of hazardous waste. EPA has taken into account the U.S. Department of Transportation (DOT) and Occupational Safety and Health Administration (OSHA) marking requirements when developing the new regulations. EPA looked very closely at the DOT and OSHA marking requirements when crafting the revised labeling requirements for containers and tanks of hazardous waste. EPA references these marking systems in the revisions as ways a generator can meet the new requirement to identify the hazards of the contents of the containers. EPA believes it is important that employees, transporters, downstream handlers, emergency personnel, and EPA and state inspectors know about the potential hazards of the contents in containers being accumulated, transported, and managed, whether on-site and/or off-site so that the hazardous wastes are managed in a safe and environmentally sound manner. To this point, labs shall label all hazardous waste containers properly using the “Hazardous Waste” label pictured.

HAZARDOUS WASTE

Name: _____ Date: _____
 Bldg/Room: _____ Phone #: _____

KEEP CONTAINER CLOSED AT ALL TIMES











Do Not Fill Within 2" of Container Top

CONSTITUENT(S)	%

FOR WASTE PICKUP CALL EVMS EH&S 757-446-5798

If you need labels or you need more of them, please contact EH&S. You can read more about the Hazardous Waste Generator Improvement Rules at www.epa.gov.

Respirator Fit Testing Process Moving to BioRAFT

With the support of the EVMS General Counsel and Internal Audit, changes are coming to the EVMS Respiratory Protection Program. Specifically, specific data will be managed on our BioRAFT platform this Spring. To help ensure a smooth transition, EH&S will be holding five hands-on training events in the Brickell Medical Sciences Library computer lab. The sessions are:

- Wednesday, April 27 at 2 p.m.
- Thursday, April 28 at 11 a.m.
- Monday, May 2 at 2 p.m.
- Wednesday, May 11 at 2 p.m.
- Thursday, May 12 at 11 a.m.

Please contact Kristi Olivar at 757.446.7928 if you have questions or concerns.

Volunteers Information and Procedures

It's the time of year when new faces pop-up all over the place; it's time for the volunteers!

Whether going into a research lab or shadowing a clinician, EVMS Human Resources (HR) must account for all volunteers. Contact Arthur Devin (ArthurDB@evms.edu, 757.446.6043 to start the process. HR will dispense the Volunteer Forms packet consisting of these forms:

- Job Description (to be completed by the supervisor)
- Human Resources Volunteer Application
- Confidentiality Statement
- Release and Waiver of Liability

The completed packet must be returned to HR; they will forward the information to Environmental Health & Safety and Occupational Health. This will determine the volunteer's safety training and health requirements. More information and restrictions may be warranted if biohazardous, radioactive, or animal materials are part of the volunteer's work.

HR will communicate the training requirements to the volunteer's department; the department will notify the volunteer of his/her training requirements. HR will contact the department when the volunteer has been cleared for duty and may then be issued a badge.

For more information consult the EVMS [Volunteer Policy](#) or contact Arthur Devin.



Semiannual Radioactive Material Inventory!

Spring is finally here. Spring brings warmer weather, extended daylight, and sunshine - Spring is the season for semiannual radioactive material inventory at EVMS. Formal requests and inventory forms will be sent to each Authorized User. These are to be completed and returned to EH&S. The inventory form includes instructions on how to complete it and the EVMS's Radioactive Material Inventory policy. In addition, the decay spreadsheet will be emailed, which will help your data compilation process.

State and Federal regulations require completion of the inventory form. If you have any questions or concerns, please feel free to contact the EHS office at 757.446.5798.

EH&S Cold Storage Options and Procedures

Environmental Health & Safety (EH&S) has multiple freezers available when emergencies occur and are available 24/7. Currently, there are four -80° freezers, one -20° freezer, and another -20° freezer that utilizes liquid nitrogen for cold storage. All of the EH&S freezers have *Minus80 Monitoring*.

To be allowed access to the Emergency Freezers, you must first contact EH&S through phone, email, or in person at the EH&S Office (in Lewis Hall 2132) during regular working hours. For after-hours and weekends, call the Emergency Freezer Pager. Callbacks are usually received in a few minutes. During the call, coordination for freezer access will start; someone from EH&S will unlock the freezer for you. You will be responsible for placing your materials into the freezer. These materials should be labeled with the PI/clinician’s name and the contents within the container being stored. While placing objects within the freezer, we require that the freezer door being left open for no longer than one minute to maintain the temperature within the freezer.

After materials are placed within the freezer, you will be provided with a “Description of Emergency Freezer Material” form to fill out. The storage of materials in the Emergency Freezers is provided for up to 60 days. You will be sent a reminder approximately ten days before the deadline to remove materials from the freezer. The materials will be returned to the laboratory if no response is received.

EVMS

ENVIRONMENTAL
HEALTH & SAFETY

Emergency Freezer Access

Lewis Hall 2132

Office: 757.446.5798

Pager: 757.415.0014




-80°C Freezer Best Management Techniques

TIPS FOR BEST SAMPLE STORAGE

Minimize ice build-up
Keep door openings to a minimum and to short lengths of time (30 seconds to one minute is normal)

Clean door gaskets
Use a cloth to wipe these at least once a month



Clean the condenser coils
Vacuum coils at least every 6 months or more often if there is dust or heavy foot traffic near the unit

Change the condenser filter
Clean the filter monthly and change it out at least annually

Utilize your freezer racks
Know where your samples are located before you retrieve them to minimize exposure to ambient temperatures



Remove frost and ice build-up
Periodically scrape the frost and ice from the inner doors, chamber and vacuum-release port



Defrost
Do this at least annually



Compressed Gas Cylinder Safety

Compressed gas cylinders can pose both a chemical and physical hazard to users. The cylinders contain pressurized gas that can be flammable, oxidizing, corrosive, inert, toxic or a combination of hazards. Since the gas is pressurized, it can contaminate a large area very quickly if the cylinder leaks. The cylinders contain hazardous gases and are heavy. If the cylinder falls over, it can break things in its path, such as chemical containers. Cylinders can also become projectiles when the pressurized gas exits the cylinder quickly. It is essential to know the hazards of the gas contained in the cylinder and keep the cylinders properly secured.

Tips for Proper Gas Cylinder Storage

- Always store gas cylinders upright (valve end up)
- Secure gas cylinders to a wall, bench top, or cylinder rack at all times
- Cylinders must be strapped or chained at the midpoint, or slightly above
- Strap or chain must be tight around the cylinder
- Do not strap cylinders to other cylinders
- Do not store on a gas cart
- Always store cylinders in well-ventilated areas
- Store away from sparks, flames, or any source of heat or ignition
- Do not store in areas that block exit routes
- Do not allow cylinders to corrode
- Label cylinders when empty



Tips for General Use

- Valve caps should always cover the valve except when in use
- Do not transfer gas from one cylinder to another
- Never tamper with, repair or alter cylinders, regulators or any pressure relief valves; contact gas vendor for assistance
- Use regulators with pressure relief valves
- Do not place cylinders where they may come in contact with an energized system
- Proper training is required for use of gas cylinders

If you have any questions about compressed gas safety please reach out to the EH&S office. We have extra straps and brackets if you need assistance securing any of your gas cylinders.

Ask the S.O.B.

Q: Dear S.O.B.,

During a site visit, the EH&S representatives asked if our disinfection procedures and training were written down. Our procedures have always been passed down by word-of-mouth. Why is that not ok?

- Tory Tellin



Safety Office Boy to the rescue!

A: Dear Tory,

In order to have proper and consistent instructions for personnel to learn, training and instructions must be written down. When procedures are written down, consistent instruction is passed from employee to employee. Otherwise, variations in instruction and/or the loss of information to employees can lead to inefficient or hazardous procedures.

If you have questions or need assistance with the process, please contact EH&S at x5798 or ehs@evms.edu.

Notes from the Office

EH&S Training Courses.

Course	Date/Time	Location
Chemical Hygiene Plan	April 21, 2022 9:30 AM - 12:30 PM	Lewis Hall 2162
	May 19, 2022 9:30 AM - 12:30 PM	Lewis Hall 1184
	June 2, 9, and 16, 2022 9:30 AM - 12:30 PM	Lewis Hall 1184
Radiation Safety in the Laboratory	Contact EH&S	
Respirator Fit Test Training Biosafety in the Laboratory Biological Materials Shipping Autoclave Safety Training OHSP Trainin	Available on BioRAFT!	https://evms.bioraft.com/
HAZCOM Bloodborne Pathogens Biological Safety in the Clinical Laboratory	Available on Blackboard!	https://evms.blackboard.com/