Laboratory Hazard Signage at the University of Maryland

Miriam Sharp Ph.D.

Laboratory Safety Manager and Chemical Hygiene Officer



Hazard Warning Signage

- Standardized identification of hazards that may be present within laboratory spaces is required at the entrance to the laboratory by state regulation [NFPA 45 13.1.1; COMAR 29.06.01]
- Signs inform emergency responders and any entrants of any unusual or severe hazards that may be present within a space prior to entry
- Many options exist to comply with the regulation
 - Blank Template
 - Home-built Database or Google Options
 - Digital Safety Management Platform Solution







Blank Template

Advantages

- Lowest cost
- Easy to create fillable PDF or Word Doc
- Completely customizable
- Can send template to labs to fill and post

Disadvantages

- Manual recordkeeping
- Not tied to any database or existing information
- Difficult to manage accuracy
- No easy way to share with emergency responders unless additional database is created

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Home-Built System

- Blank vinyl placards taped to entrance locations
 - Stickers and label maker
- Information Management
 - Original System Internal Database
 - Discontinued due cybersecurity gaps
 - Transition to Google Form and Excel File
 - Exported old data into Google Sheets, use Google
 Form for new requests, manually update the
 master sheet
 - Use same stickers and label maker
 - Responders provided access to Google Drive and Sheets







Home-Built System Advantages

- Relatively low cost
 - Blank placard (design and production)
 - Sticker and label making (design and print)
- Customize sticker type and placard format
- Data collection easy via Google Form
- Quick to deploy and to change
- Access can be variable based on system, but often can be shared with responders





Home-Built System Disadvantages

Stickers

Time consuming to update physical signs

Internal Database

- Not tied to existing safety management information
- Updating access permissions time consuming
- Lack of IT support for aging system infrastructure

Google Transition

- Users had to start from scratch each time for each request
- Dependent on repetitive data entry between request form and master sheet
- Master sheet cumbersome, difficult to navigate with many labs
- Not tied to existing safety management information
- Access for external responders more difficult



Platform Signage System

- ESSR committed to working with SciShield to develop a new laboratory signage system.
 - This platform is currently used to streamline management of inspections, trainings, and biological research registration.
- Will be a printed 8.5"x11" paper sign with new standardized sign holder and placement
 - Integrates with laboratory hazards already in system
 - More easily updated than current system
 - More hazard and safety information can be presented than current system
 - Format approved by Fire Marshal





Advantages of a Platform System

- Ties to other safety information (e.g., biological registration, chemical inventory) for faster recognition
 of present hazmat for emergency responders
 - Auto-generation of NFPA 704 Diamond based on Chemical Inventory (requires inventory module)
- More professional and customized look
- Easy to review, print, and post
 - Options for labs to print/post themselves (we chose not to do this)
- Easy for labs to update
- IT updates and support included in base cost
- Digital Door Signage







Digital Door Signage

Updated by lab online, pulls information already in system Safety Office Notified Safety Office reviews, prints, and posts sign (this could be changed to the lab)

All information available online for Emergency Response at the lab information input stage



- Safety Glasses
- Closed Toe Shoes
- No Food/Drink

Entrance Procedures/Facilities Instructions

If you cannot get into contact with members on this sign, contact ESSR main office at 301-405-3960



ChemTracker

Chemistry Building - 3224

Members

Edit

- Location		Door Sign Last Created: 04/12/2022 R	
Building Name:	Chemistry Building		
Room Number:	3224		
Address:	No location entered		

- General Information -

		Contact Name		Primary Phone	Secondary Phone	
	1	Dorman, Mary		240-398-0809	-	
	2	Case, Edward		240 438 7768	-	
	3	Jacobson, Alan		301-405-1396	-	
Description: Re		Research Safe	Research Safety Lab; Radioanalytical Lab			
Labs/Groups using space: Dorman		Dorman Lab	ab			

-Space Hazards

- Biological
 - Human blood, body fluids, tissues, and/or bloodborne pathogens
 - · Human blood, body fluids, tissues, and/or bloodborne pathogens Fresh
- Chemical
 - · Any hazardous chemicals
- Ionizing Radiation
 - Radioactive materials
 - Alpha emitting materials
 - Beta emitting materials
 - Gamma emitting materials
- Physical
 - Cryogens and dry ice
- Regulated Activities
 - Transporting materials between buildings or campuses
 - · Transporting materials between buildings or campuses Radioactive

Disadvantages of a Platform System

- Requires investment into safety management platform
 - Base platform and/or signage module costs
 - Optional Signage Holders Installation costs (commercial options exist)
- Design look/feel and other options can be dictated by platform limitations
- Can take time to develop and deploy
- Subject to external platform success/support





Bottom Line

- There are lots of ways to create compliant laboratory signage
 - Variations or hybrid models exist
- We are moving toward integrated platform approach for the significant value that integration provides for emergency response and our safety office staff



