Should Science Departments have their own Safety Departments? – An assessment of a centralized approach

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Answer.... No

• Based on current trends in developed countries

• Dept of (environmental) health and safety:

• Department of Health and Safety, Department of Environmental Health and Safety, Dept of Health, Safety and Environment
These departments are then divided into other areas such as:

- Biosafety
- Fire Safety
- Chemical and Hazardous Materials
- Radiation
- Environmental Compliance
- Hazardous Waste
The Jamaican context

• The main Act is entitled the Factories Act (1943) and its accompanying regulations are:
  • **The Factories Regulations 1961**
  • The Building Operations and Works of Engineering Construction 1968
  • The Ship and Docks Regulations 1968
The Jamaican context

• In 2000, GoJ prepared the Draft Occupational and Safety Health Act, applicable to “all branches of economic activity and to all owners, employers and workers in all such branches”
25 Years after OSHA Lab Standards

*(29 CFR 1910.1450)*

- The Ministry of Labour and Social Security will soon introduce new legislation entitled the Occupational Safety and Health Act
Jamaican Context

• Culture of non-compliance regarding safety (outside of factories)

• Refer to OSHA as matter of best practices

• Glaring departures
Preliminary Audit

• Chemical Hygiene Plan (1910.1450(e)) - details policies, procedures for keeping employees safe- monitors, measures, controls employee exposure  X

• Chemical Hygiene Officer v -(CHP developer and implementer X)

• Train all lab personnel  X
Safety manual

• Crisis (Emergency) Procedures
• Fire
• Bomb Threat
• Earthquake
• Hurricanes
Fires

• Ensure your department has a Safety Warden Representative. If not, nominate a member of staff to serve.
• Allow Safety Wardens the time off to attend CPR and Fire Response Training offered by the Safety and Security Department.
• Ensure visitor log book systems are implemented and maintained in all offices/departments. This will enable response teams to determine if all persons are accounted for.
Fire Extinguishers ✗
Emergency Exits
Standard Number 1910.1450(h)  

*Hazard identification.*

1910.1450(h)(1)(i)

- Employers shall ensure that labels on incoming containers of hazardous chemicals are **not removed or defaced.**
Hazard Identification X
Date of waste accumulation √
Fume Hoods
Standard 1910.1450(e)(3)(iii)

• A requirement that fume hoods and other protective equipment are functioning properly and specific measures that shall be taken to ensure proper and adequate performance of such equipment;
Fume Hood
Fume Hoods  x

1910.1450 App A: Keep chemical hood areas clean and free of debris at all times.

(2k) Chemicals should not be stored in the chemical hood,
2. Chemical Procurement, Distribution, and Storage

(h) Open shelves used for chemical storage should be secured to the wall and contain 3/4-inch lips. Secondary containment devices should be used as necessary.
Standard Number: 1910.106
Title: Flammable liquids. 1910.106(d)(4)

• Inside storage rooms shall be constructed to meet the required fire-resistive rating for their use

• Fire protection system shall be sprinkler, water spray, carbon dioxide, or other system.
Every inside storage room shall be provided with either a gravity or a mechanical exhaust ventilation system.
Ventilation
Flammable Liquids
Chemical Storage X
Standard Number: 1910.1450 App A
Chemical storage: (f) Chemical shipments should be **dated upon receipt** and stock rotated.
Mercury Waste  x

Due to the health effects of mercury exposure, its use is regulated by OSHA, WHO, NIOSH

ALSO because of Minamata Bay in Japan

Jamaica is a signatory to:
Minamata Convention on Mercury by the
United Nations Environment Program (UNEP)
(b) .....Waste containers should be clearly labeled and **kept sealed** when not in use.
•Labels should include the **accumulation** start date and hazard warnings as appropriate.
Open bottles
Back to original question

In the Jamaican context:  

- Why?
- Limited resources
- Expertise resides in the science department

Answer is “yes”
1910.1450(e)(3)(vii)

- **Ideally**: Designation of personnel responsible for implementation of the Chemical Hygiene Plan including the assignment of a Chemical Hygiene Officer

- **Current personnel = 1 Environmental Health Officer for entire campus**
• …..and, if appropriate, establishment of a Chemical Hygiene Committee;

• This is where Science Department comes in......
Step1: Establish Health and Safety Committee

• The Health and Safety Committee (HSC) at FOSS and COHS UTECH, Jamaica is committed to ensuring an eco-friendly, safe and healthy work environment for all staff, students and visitors to our facilities by promoting compliance with local and international workplace safety regulations, as well as awareness raising and educational activities that aim to develop positive attitudes to occupational health and safety.
Step 2: Inform, Inform, Inform

• The heads of labs are now mandated to audit their areas and provide list of all hazardous chemicals being used in the labs

• Provide MSDS to all employees
Step 3: Support the EHO

• The Health and Safety Committee has begun to draft a chemical hygiene plan and will work with EHO to facilitate its implementation and maintenance.

• This audit will be used to support the need to employ additional staff vital to a centralized approach.
Any Suggestions?