UMS Safety Support Updates, News and Other Topics of Interest
May 2017

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This Month's Safety Reminder – Lab Safety Review

During last year's April newsletter, we wrote about a researcher/post-doc at the University of Hawaii that was working in a lab and suffered burns to her face and lost an arm when a lab explosion occurred in March 2016. She was growing cells by feeding them a mixture of low-pressure hydrogen, carbon dioxide and oxygen – a common procedure that was carried out almost daily since 2008 without incident.

In that newsletter article, the investigation was still under process and we were not able to state a cause. Since then, the final report has been released, and also being that the topic of this newsletter is Lab Safety Review, we thought it would be interesting to provide a follow-up.

The University of Hawaii hired the University of California Center for Laboratory Safety (UCCLS) to conduct an independent investigation of the accident and released the report in July of last year. We encourage you to read the in-depth report and recommendations they made. The independent report can be accessed on the University of Hawaii webpage at: http://www.hawaii.edu/news/2016/07/01/independent-investigation-of-lab-accident-complete/

But in a nutshell, both the UCCLS and the Honolulu Fire Department concluded that the most likely cause was an electrostatic discharge between postdoctoral researcher and the gas storage tank containing hydrogen, oxygen, and carbon dioxide likely caused an explosion. The report suggests that the initiation event was due to a static discharge generated in the tank or the researcher. The explosive gas mixture was most likely ignited when the statically charged researcher touched the metal housing of the gauge and a charge transfer occurred causing a corona or brush discharge within the gauge stem.

As a reminder for all University of Maine labs, the overall responsibility for lab safety lies with the faculty member or Principle Investigator (PI) researcher with labs. The faculty/researcher/PI in charge of the lab shall:

- Ensure that all lab workers understand the chemical hygiene rules applicable to their lab and have the appropriate personal protective equipment (PPE) available to them and they know how to use it.
- Ensure that appropriate training has been provided.
- Provide regular chemical hygiene and housekeeping inspections including PPE and emergency equipment.
- Know which substances are being used in the lab, and know the requirements including handling, storage, and labeling.
- Know the hazards of and warning signs of symptoms of chemicals and chemical classes used in the lab.

UMaine Safety and Environmental Management has a lab safety checklist that you may use to conduct your lab safety review. It's available on our webpage at http://sem.umaine.edu/forms/. As always, if you have any questions regarding your campus safety programs, or if we can assist you, please don't hesitate to contact the UMaine Safety and Environmental Management at 581-4055 or email us at sem@maine.edu

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What Were They Thinking?

Not a UMS campus work-area image(s)

Spot the Safety Violation

UMS campus work-area image(s)

NOTE: When we observe these hazards, we immediately notify the area supervisor or the campus Facilities Management.

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UMS Safety Support Updates, News and Other Topics of Interest ToolBox Talk

Topic(s) discussed during this toolbox talk		
Date:	Supervisor/Presenter/Trainer:	Signature
Employee Name (print)	**Department**	**Employee Signature**