

CHEMICAL SAFETY MOMENT

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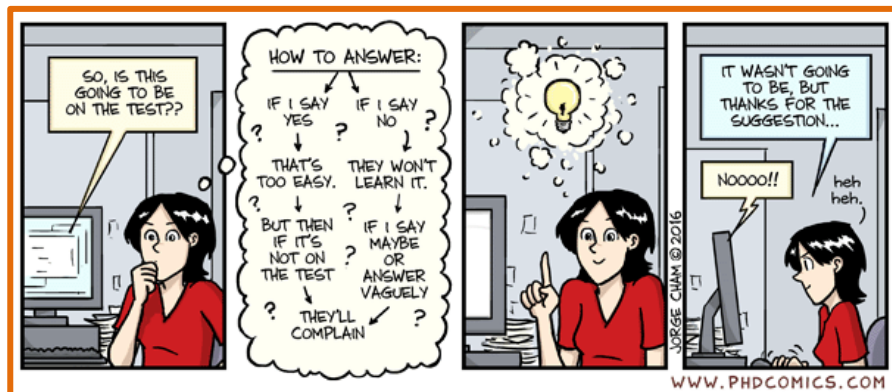
University of Hawaii fined \$115,500 for lab explosion: 15 ‘Serious’ workplace safety violations cited

The state of Hawaii occupational safety and health agency found 15 workplace safety violations associated with the lab explosion that left a postdoctoral researcher severely injured. At the time of the explosion, the researcher was preparing a gas mixture of 55% hydrogen, 38% oxygen, and 7% carbon dioxide when an electrostatic discharge ignited the mixture. Below are 8 of the 15 citations to discuss during your next group meeting:



1. The employer did not ensure that safety practices were followed by employees and underscored through training, positive reinforcement, and a clearly defined and communicated disciplinary system.
2. The employer did not ensure periodic in-house inspections were being performed to determine new or previously missed hazards.
3. Laboratory personnel working under the principal investigator did not use the required personal protective equipment at all times.
4. The employer's emergency action plan(s) did not list the evacuation meeting point nor a way to account for the evacuees.

5. The employer did not review the emergency action plan when employees were initially assigned.
6. A fire prevention plan did not include specific provisions to address potential ignition sources in the presence of hydrogen and other flammable gases.
7. Activities performed in the laboratory by researchers with the potential exposure to explosion and fire hazards were not assessed for appropriate personal protective equipment.
8. The employer's Chemical Hygiene Plan did not include the standard operating procedures relevant to safety and health considerations to be followed when laboratory work involved the use of hazardous chemicals.



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