

CLOSE ENCOUNTERS OF THE LAB KIND

THE SANTAYANA REPORT

George Santayana was a Spanish-American philosopher, essayist, poet, and novelist. In 1905, he penned the famous aphorism “those who cannot remember the past are condemned to repeat it.” More than a century later, the saying reverberates with professionals the world over. The following is a summary of a recent incident at Columbia University. The information presented is intended to provide awareness and help readers plan against the occurrence of a similar situation in their laboratory or work area.

Racking Up the Heat: Fume Hood Heating Elements

November, 2020: Two Environmental Health and Safety (EH&S) Safety Advisors responded to a report of “chemical odor” in the Vagelos Physicians and Surgeons (VP&S) building. During their investigation, the EH&S responders visited nearby laboratories on the hallway where the call originated, as well as on the floor below, where they noticed a strong “burning candle”-like odor originating from one of the laboratories. Upon closer inspection, responders identified a fume hood cabinet that was radiating noticeable heat. Once the fume hood cabinet was opened, a strong burning odor filled the room. After emptying the cabinet, the responders found scorch marks on a box filled with 24 one-pint bottles of ethanol and a piece of cardboard lining the bottom of the cabinet. Below the cardboard were heating elements that previously allowed the cabinet to function as a glassware dryer; the heaters had been inadvertently turned on, resulting in a dangerous condition. Facilities disabled the electrical power to the heating elements and removed the piece of cardboard. Facilities personnel located the room’s electrical panel, and permanently disabled power to the heating rack, ensuring that it would not be accidentally activated in the future.



Lab Action Items:



- Check your Fume Hood cabinets for the presence of heating rack!
 - o If a heating rack is present, please remove any chemicals (especially flammable chemicals) from the fume hood cabinets and contact Columbia Facilities.
- Periodically check on chemicals in any fume hood storage cabinet or other designated cabinets to ensure they are in good condition!
- Keep in mind the lab’s flammable storage limits according to its FDNY Permit. Contact EH&S with questions.

Lessons Learned

- Some older fume hoods have electrical heating racks in the storage cabinet below the hood which may be covered by lining.
- Always contact EH&S/Public Safety whenever unusual odors are observed.

For further information, or to view previous Santayana Reports, please visit our [lessons learned website](#).
For any other safety related matter, please contact the [EH&S office](#).