CLOSE ENCOUNTERS OF THE LAB KIND

THE SANTAYANA REPORT

COLUMBIA UNIVERSITY
Environmental Health and Safety

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.*

Safety Never Sleeps, but You Should!

In two recent incidents at the University fires were started when containers of ethanol, a flammable liquid, were spilled in close proximity to lit Bunsen burners. In both circumstances the research personnel were unharmed and were able to extinguish the flames with a fire extinguisher. Following the incidents, EH&S learned that the lit Bunsen burners that ignited the ethanol were not necessary to successfully complete the type of work being performed when the incidents occurred. In both cases the research personnel did not turn off the burners after completing a previous task. Both incidents occurred outside of typical working hours and that both of the affected research personnel cited fatigue as a possible contributing factor to the incidents.

Lessons Learned

- Both incidents occurred outside of typical working hours and both of the affected research personnel cited fatigue as a possible contributing factor to the incidents. Only handle hazardous materials when you are well rested and alert.

- Hazardous equipment and materials should always be safely turned off or stored when they are no longer required to complete a task so as not to inadvertently interfere with another task or process. The individual components involved in these incidents, the Bunsen burner flame and the ethanol, could have been handled safely on their own, but when introduced together caused two serious incidents.

- Flammable liquids such as ethanol will catch fire when exposed to an ignition source, such as a Bunsen burner flame. Remember that the vapor, not the liquid, will burn, and that vapors can also travel along a bench top to reach an ignition source that is not immediately adjacent to the liquid. Always remove ignition sources from the area before handling any flammable materials.

For further information on this or any other safety related matter, please visit www.ehs.columbia.edu.