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.*

Overflow of Radioactivity

EH&S recently responded to a report of a spill of water containing H-3 from a cell harvester. Upon arrival, it was noted that about 0.5 liter of water was on the floor of the lab and it was reported that the spill contained about 1 uCi (37 kBq) of H-3. The researcher stated that he had to step into the puddle of water to shut off the harvester to stem the rising tide. Consequently, his shoes and socks became saturated with the contaminated water. Fortunately, this individual did not suffer any significant intake of H-3 through his skin. The spill was contained and cleaned up without further incident.

Upon investigation it was discovered that the cell harvester had recently been serviced, and that the liquid waste container had not been emptied prior to its use. In addition, there was no secondary containment provided for the waste container.

Lessons Learned

- In the case of cell harvesters or any device that is designed to run unattended, it is important to ensure that the waste containers have the capacity to collect and stored all the waste that will be generated.
- Equipment maintenance protocols and schedules should be well understood by all users. If and when a vendor or technician works on a piece of equipment in the lab, it is important to know the condition in which the equipment was left.
- Secondary containment should always be provided for any liquid waste container.
- It is important to remember the rules of a spill response – SWIMS
    - Stop the spill from spreading
    - Warn others in the vicinity
    - Inform Radiation Safety
    - Minimize further exposure by donning appropriate PPE
    - Survey the area for contamination

For further information on this or any other safety related matter, please contact Radiation Safety at 212-305-0303 (CUMC) or 212-854-8749 (Morningside, Barnard College, Nevis or LDEO).