

 COLUMBIA UNIVERSITY
Environmental Health and Safety
INCIDENT SUMMARY

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. For further information on this or any other safety related matter, please contact the [EH&S office](#).

WHAT: Unattended work resulted in two laboratory fire/smoke conditions

WHEN: May 2012

WHERE: A Columbia University Laboratory

SUMMARY:

Two events in Columbia University laboratories were spawned by unattended work in May 2012.

In the first event, two students prepped an oil bath and hotplate to heat an organic compound inside a chemical fume hood. After setup, the students left the work area unattended for approximately thirty minutes. Upon their return, they observed a 12" flame within the chemical fume hood. The students appropriately discharged a dry chemical "ABC" fire extinguisher into the fume hood, extinguishing the flame. The students cleaned up the work area and returned to work thereafter. No one was harmed, and no permanent damage was incurred. Environmental Health & Safety was only notified three weeks after the event, when the students requested a replacement fire extinguisher.

In a second event, a student setup a distillation apparatus inside a chemical fume hood and left the work area. They returned to find all of the liquid in their round bottom flask evaporated, and the contents of the flask smoking. The student turned off the heating element and placed sand over top of the reaction, smothering and cooling the reagents.

FINDINGS:

- Unattended work allowed potentially dangerous conditions to develop in both events.
- Neither event was immediately reported to Public Safety, Environmental Health & Safety, or the academic department.
- In both events, the students calmly and carefully extinguished the fire, preventing personal injury or property damage.

PREVENTIVE MEASURES:

- Avoid leaving work unattended, especially when there is a risk for fire.
- Pursue an enhanced sense of emergency readiness by obtaining the C-14 Certificate of Fitness, offered [weekly](#) by Environmental Health & Safety.
- Always report events with safety consequences to the appropriate responder as soon as practical:
 - For fires, chemical spills, or medical emergencies, Public Safety at 4-5555, then Environmental Health & Safety at 4-8749.
 - Always report events, and near misses, with safety consequences to the principal investigator and a department representative so that preventive measures discussion can occur, and lessons learned timely distributed.