

# LESSONS TO BE LEARNED

Generated from Actual Incidents-Written by EHSO

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*Type of Incident:* Toxic gas exposure

*What Happened:* Researcher opened the chamber of a laser, releasing a pungent gas into researcher's breathing zone and into the room, exposing several other researchers. No one knew if it was hydrogen fluoride gas or hydrogen chloride gas that was released.

*Immediate Cause:* System was not properly shut down when experiment ended. The gas should have been properly evacuated and exhausted.

*Root Causes:* Lack of proper equipment/chemical hazard labeling, lack of written standard operating procedures, lack of training on laser safety and laser-specific operations.

*Corrective Actions:*

1. Label instrumentation and equipment that is filled with potentially hazardous compounds.
2. Laser-specific standard operating procedures must be developed, written and followed.
3. Close out experiments and properly dispose of hazardous waste that was generated. *See UIC Chemical Hygiene Plan and Chemical/Biological Laboratory Decommissioning Policy ([www.uic.edu/depts/envh](http://www.uic.edu/depts/envh)), Appendix A for guidance.*

