

LESSONS TO BE LEARNED

Generated from Actual Incidents/Written by EHSO

Issue No. 6

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Type of Incident: **Chemical Spill with Injuries**

What Happened: Researchers were moving chemicals to comply with rules of compatibility. They were not wearing gloves or aprons. One person broke a bottle of hydrochloric acid when it hit the bench. The acid splashed the researcher standing next to him. They tried to clean up the spill. One researcher slipped and fell into the spill, contaminating his pants, shirt, shoes, hands and legs. The vapors forced them to leave the room. Since there was no shower in the area, the researcher tried to wash off the acid in the men's washroom sink. The other researcher had to wash in the janitors' closet because there was no ladies' washroom on the floor.

They were treated for 2nd and 3rd degree burns. Skin grafting was necessary to restore one researcher's hands.

Due to the vapors in the lab, the Chicago Fire Department HazMat Team was called for assistance.

Immediate Cause: Glass chemical bottle hit bench.

Root Causes:

1. Two hands and extreme care should be used when moving chemicals.
2. Inadequate Personal Protective Equipment.
3. Improper order of activities in responding to chemical exposure and spills.
4. There was no emergency shower on the floor.

Corrective Action:

1. Install safety shower/eyewash station within 100 feet or 10 seconds in areas where **any** quantity of chemicals is being handled.
2. Ensure that proper Personal Protective Equipment be worn including nitrile or chemically compatible gloves, laboratory coats, and safety glasses or goggles.
3. Ensure that all employees are trained how to respond in the event of a spill and chemical exposure.

REMINDER: Acid does not typically wash out of leather. Shoes must be disposed with spill materials and contaminated clothing.

