

CHEMISTRY DEPARTMENT – HAZARD ASSESSMENT FOR LAB ATTIRE

Introduction: Individual laboratory workers interact with the Laboratory Hazard Assessment Tool (LHAT) to determine proper PPE for the laboratory to which they are assigned. Accessing the LHAT provides them the proper training on how to use and care for PPE, documents the PPE required, and once they obtain their PPE at Vet Med Central Stores (Haring Hall), documents they have received their PPE. Yet, there are some activities within the chemical laboratories in the Chemistry Department that do not involve the use of chemicals, hazardous materials, or hazardous operations. Because lab worker desks are located within chemical laboratories, it makes sense to evaluate the various areas within the lab for potential hazards. Additionally, some chemical laboratories are configured such that lab workers must step into the lab in order to don personal protective equipment. A blanket expectation, a one size fits all approach, is neither helpful nor cognizant of the real hazards within the various areas of the chemical laboratory.

Requirements: In order to cross the threshold of a chemical laboratory, a person must be properly attired in long pants (covered legs – scrub pants available in the Storeroom for purchase), proper footwear (covered feet) and safety glasses. This applies to EVERYONE entering a chemical laboratory – even for a minute. Leggings (glorified tights) are not “pants.” Prescription spectacles do not afford the protection of safety glasses and are not appropriate lab attire. Over the glasses (OTG) safety glasses are available in the Stockroom. See DeAnn for help in ordering prescription safety glasses.

Desk areas within the chemical laboratory are considered chemical-free areas and must be maintained as such. Lab workers should remove their lab coat and may remove safety glasses while working at their desk. Food and drink ARE NOT ALLOWED at any time in a chemical laboratory. The desk area must not be within proximity of chemical use areas or hazardous operations and the risk of accidental splash must be minimal – either by barrier or distance. A one to two meter distance to chemical use areas or a chemical fume hood is optimum.

If a lab worker leaves their desk area to do work at the bench or fume hood, they must don the appropriate lab coat and safety glasses/goggles. Observers/visitors, not engaged in active work, may have to don a lab coat, depending on the hazard assessment. Assessment of the hazards of the work being observed will drive the PPE requirements for observers/visitors.

If you wish to designate an area of the laboratory as an area where PPE may not be required, you will need to assess the hazards of that area. The following steps will provide you with guidance to assess the hazards and document the assessment.

CHEMISTRY DEPARTMENT – LAB AREA HAZARD ASSESSMENT

Step 1: Create a floor plan of the space. Include desks, fume hoods, lab benches, etc. As best you can, create your plan to scale. If you need help with a floor plan, please contact Debbie.

Step 2: Mark on your floor plan areas where hazardous materials are used or stored and areas where hazardous operations are conducted. A floor plan in color is helpful.

Step 3: Mark on your floor plan areas you wish to designate as desk areas, making sure any hazardous storage or use areas are separated by at least 1 meter (2 meters for particularly hazardous operations), by a barrier or both.

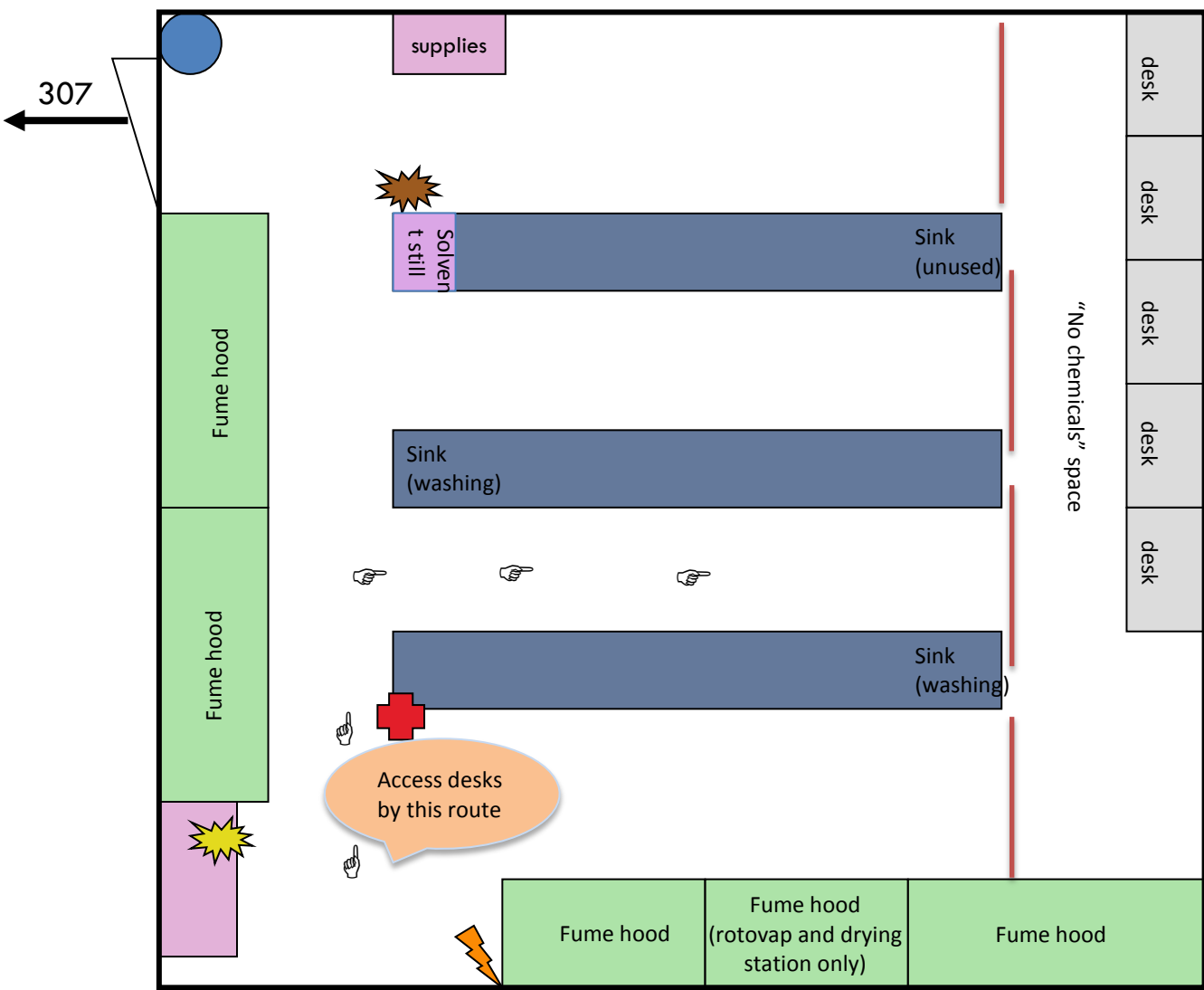
Step 4: Mark on your floor plan the designated path of travel to the desk area. The path of travel should be free of hazardous operations and chemical use. If the path of travel cannot be maintained free of hazardous operations, a lab coat is required to travel to the desk area.

Step 5: Based on the areas where hazardous materials are used and stored, and where hazardous operations are conducted, describe the proper PPE necessary for observers/visitors.






Step 6: Train all lab workers on the hazard assessment and the floor plan. Document the training, post the floor plan at all entrances to the lab and include the floor plan(s) in your lab-specific Chemical Hygiene Plan.

Note: If you wish to designate the entire lab as “full PPE required,” you may do so. Please post a notice to that effect at all entrances to the lab, train all lab workers, and include this requirement in your lab-specific Chemical Hygiene Plan.

Example of a floor plan, showing areas where desk work is appropriate and the safest route to the desk area, avoiding hazards.



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-  Eye wash/Shower
-  First Aid Kit
-  Fire Extinguisher
-  Acid/Base Spill Kit
-  Vermiculite

In case of emergency, evacuate through south stairwell