

## UH MANOA DUCTLESS FUME HOOD USE GUIDELINES

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The University of Hawaii Environmental Health and Safety Office (EHSO) discourages the use of Ductless Fume Hoods (DFH), and all efforts should be made to use conventional chemical fume hoods for lab operations requiring local ventilation. If a DFH is deemed necessary by the Principal Investigator, the purchase, testing and maintenance is the responsibility of the individual departments, and this fact sheet provides operational guidelines that must in place. Please review this material and call the EHSO at 956-5097 with any questions.

- **Definition:** A ductless fume hood is defined as a device which recirculates filtered air from a hood or enclosure directly back into the working environment. These hoods are unique in that the contaminated air is not vented to the outside through a system of ducts, unlike conventional fume hoods.
- The EHSO should be notified before a ductless fume hood is purchased. An evaluation of its intended application will then be made by the EHSO staff to determine if DFH use is appropriate.
- All users should be trained by the manufacturer, prior to use, regarding proper hood operation, including capabilities and limitations of their particular DFH.
- DFHs should be thoroughly inspected twice a year (or more often depending on the frequency of use) as well as following filter changes or maintenance activities. Items such as the airflow velocity, the mechanical units (i.e. fan, lights, velocity sensors), and sashes and panels should be checked to make sure they are operating properly. Contact the EHSO for assistance.
- DFHs are not manufactured to be used with toxic, flammable or large quantities of material. Typical applications are for nuisance or odor causing dust and vapors.
- The user should notify the EHSO for DFH re-evaluation if any changes occur in the process/application requirements (i.e. type or amount of chemicals used, increase in frequency or duration of use, etc.).
- The DFH should be located more than ten feet from disturbing influences such as open doors and windows, which could cause drafts, and should not be located near areas of heavy pedestrian traffic.
- Permanent records should be maintained regarding the dates of installation and filter changes, maintenance and repairs, operator training, and chemical usage.
- Always keep a spare set of filter available, keeping in mind the typical factors involved in DFH breakdown, such as: potential health and safety risks; availability of spares or replacements; and economic impact of an out-of-service hood.
- Following a spill, the filters should be changed. Often the high concentration of the spilled material is enough to completely saturate the filter, causing the contaminant to be readily discharged from the hood, exposing the worker.
- Contact UH EHSO before disposing of any replaced filters, as they may need to be turned in as hazardous waste in accordance with the UH Hazardous Materials Management Plan.