

**UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY**

Procedure No.: IH018	Approved by: Mark Cavanaugh
Title: Ductless Fume Hood Procurement and Use	Date: March 16, 2012
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Prepared by: John Coniglio	

I. PURPOSE

This document establishes the selection, installation and appropriate work practices for ductless fume hoods (DFH), also referred to as “non-ducted” or “green” fume hoods.

II. PERSONNEL AFFECTED

All areas where it has been determined that a fume hood is required and a ductless fume hood is desired.

III. DEFINITIONS

Ductless fume hood means a non-ducted fume hood utilized for the safe removal of low hazard chemical or other nuisance vapors and/or fumes, and is often referred to as a “green” fume hood, and referred to in this document as DFH.

Purchaser of a DFH can be a Project Manager, an Area Manager, a PI, a department administrator, or any other person initiating the order to purchase or install a fume hood.

Owner is the person who is in charge of the area or responsible for people that will be using the DFH, and who has the authority to ensure that maintenance and safe work practices are being followed. This could be a PI, a lab director, department chair, or dean.

IV. RESPONSIBILITIES

The **purchaser** is responsible for ensuring that all requirements of this document are met until the DFH is put into service.

The **purchaser** must follow the guidelines and requirements for DFHs as they are outlined in *University of Rochester Design Standard SECTION 15860 - FUME HOODS AND LOCAL EXHAUST SYSTEMS* (see references).

The **owner** utilizing the DFH is responsible for ensuring that all safe work practices are adhered to after the DFH is installed. The owner can delegate activities or tasks outlined in this document, but cannot delegate the responsibility for them.

V. PROCEDURES

DFHs are not meant to be used with toxic, flammable, or large quantities of hazardous agents/chemicals. Typical applications are for low hazard materials, or nuisance or odor causing dust and vapors.

The Occupational Safety Unit will consider their use on a case-by-case basis.

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The person functioning as the owner must identify him/herself as such before a purchase is made or a change in ownership takes place.

The owner or the purchaser must notify Occupational Safety before a DFH is purchased. An evaluation of its intended application will be made by the Occupational Safety Unit to determine if a DFH use is appropriate. Occupational Safety will maintain a list of ductless hoods as they become approved.

The manufacturer of the DFH shall be Green Fumehood Technologies. Any variation must be approved in advance by Occupational Safety.

The following information must be provided to Occupational Safety when considering a DFH:

1. The purchaser, as described under definitions, must provide the following information to Occupational Safety for consideration in the use/installation of any ductless hood before the DFH can be purchased or utilized:
 - a. The name of the department that will be having them installed;
 - b. The manufacturer and model number of the DFHs;
 - c. How many will be installed and the planned location of use;
 - d. A print or drawing of the installation;
 - e. Who (technicians, clinical staff, students, chemist, etc) will be using them;
 - f. List of chemicals and their typical volumes to be used;
 - g. Filter change schedule and who will do it;
 - h. A description of the inspection, maintenance, and calibration process;
 - i. Who will be responsible for ensuring the maintenance process is adhered to.
2. The owner must ensure that only the chemicals identified on current usage inventory and the amounts agreed to for the specific DFH will be used.
 - a. The Occupational Unit Chemical Safety Officer must approve any change in chemical usage such as the type or amount of chemicals used, increase in frequency, or duration of use, increase in volume, etc.

The owner must ensure users are trained, prior to use, regarding proper hood operation, including capabilities and limitations of their particular DFH. The user must be made aware all safety features, including alarms and their meaning and the required response. Any unique safety features must be identified and warnings pertinent to the individual unit shall be prominently displayed.

The use of any fume hood does not eliminate the need for personal protective equipment as appropriate.

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The owner shall ensure the manufacturer's list of chemicals that cannot be used in the DFH is prominently displayed in an easily observable location on or adjacent to the DFH. This posting will also include any others prohibited by Occupational Safety. The owner will ensure the posting remains intact and is not blocked.

The owner shall ensure DFHs should be thoroughly inspected annually (or more often depending on 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.

The DFH should be located away from disturbing influences which could cause drafts or affect air movement, such as open doors and windows, and should not be located near areas of heavy pedestrian traffic. Variations must be evaluated with Occupational Safety.

The owner shall ensure that records regarding the dates of installation and filter changes, maintenance and repairs, operator training, and chemical usage are maintained. These records shall be made available to Occupational Safety upon request.

Filters shall be those recommended or supplied by the manufacturer of the DFH only.

The owner shall ensure an evaluation of the filters after a spill to determine if a change is required. Often the high concentration of the spilled material is enough to saturate the filter, causing the contaminant to be readily discharged from the hood, potentially exposing the lab employee(s). Occupational Safety or Facilities can assist with this.

The person changing the filters shall contact the University Hazardous Waste Unit before disposing of any replaced filters. They may need to be disposed of as hazardous waste in accordance with regulatory requirements.

The project manager and/or lab director/owner must determine what impact a DFH might have on being awarded an NIH grant.

VI. REFERENCES

University of Rochester Design Standard SECTION 15860 - FUME HOODS AND LOCAL EXHAUST SYSTEMS (<http://www.facilities.rochester.edu/ppm/designstandards/pdf/15860.pdf>).

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VII. APPENDICES/FORMS

VIII. REVISION HISTORY

Date	Revision No.	Description