UNIVERSITY OF ROCHESTER
ENVIRONMENTAL HEALTH & SAFETY

Procedure No.: LS007	**Approved by: Carolyn Place**
Title: Ductless Fume Hood Procurement and Use	**Date: April 12, 2023**
Revision No.: 2	**Page 1 of 4**
Revised by: Sarah Briggs	

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 chemicals or other nuisance vapors and/or fumes. It 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 green fume hood.

Principal Investigator/Supervisor 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 **Principal Investigator/Supervisor** utilizing the DFH is responsible for ensuring that all safe work practices are adhered to after the DFH is installed. The Principal Investigator/Supervisor 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/odor causing dust and vapors.

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

The person functioning as the Principal Investigator/Supervisor must identify him/herself as such before the purchase is made, or there must be a change in Principal Investigator/Supervisor ownership.

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

The University Approved vendor of DFHs shall be Green Fumehood Technologies. Any variation must be approved in advance by the Laboratory Safety Unit.

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

1. The purchaser, as described under definitions, must provide the following information to the Laboratory Safety Unit for consideration of 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 Principal Investigator/Supervisor 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 Laboratory Unit Manager, University Chemical Hygiene Officer, or a Certified Industrial Hygienist must approve any change in chemical usage for a DFH, such as the type or amount of chemicals used, increase in frequency or duration of use, increase in volume, etc.

The Principal Investigator/Supervisor 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 of 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 appropriate personal protective equipment.

The Principal Investigator/Supervisor 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 the Laboratory Safety Unit. The Principal Investigator/Supervisor will ensure the posting remains intact and is not blocked.

The Principal Investigator/Supervisor shall ensure DFHs are thoroughly inspected on an annual basis (or more often depending on use), as well as following filter changes or maintenance activities. Items such as the airflow velocity meter, the mechanical units (i.e. fan, lights, velocity sensors), and sashes and panels should be checked routinely to ensure 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 by the Laboratory Safety Unit.

The Principal Investigator/Supervisor 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 the Laboratory Safety Unit upon request.

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

The Principal Investigator/Supervisor shall ensure an evaluation of the filters after a spill is completed to determine if a filter 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). Laboratory 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/Principal Investigator/Supervisor must determine what impact a DFH might have on being awarded an NIH grant.

VI. REFERENCES

University of Rochester Design Standard SECTION 233816 - FUME HOODS AND LOCAL EXHAUST SYSTEMS (http://www.facilities.rochester.edu/ppm/designstandards/pdf/15860.pdf).

VII. APPENDICES/FORMS

VIII. REVISION HISTORY

Date	Revision No.	Description
May 15, 2018	1	The procedure is now held by the Laboratory Safety Unit.
April 12, 2023	2	Minor Updates