

## *Potential Hazard Review*

### Chemical Hazards

- Inhalation: Inflammation of the lungs, respiratory failure, death

### Biological Hazards

- Building-Related Illness: Cough, chest tightness, fever, chills, muscle aches
- Bacterial infection: Infection/disease (various)
- Mold: Nasal stuffiness, eye irritation, wheezing, or skin irritation, fever, shortness of breath, infection in lungs

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This SWP is dedicated to helping you avoid an injury or illness from known hazards. You are advised to follow these recommendations, read and follow this SWP and any related SWPs, complete any required or recommended training, and to obtain advice from a Qualified Person if you have any questions.

A Qualified Person is a person **designated** by the employer; and by reason of **training**, experience, or instruction who has demonstrated the ability to perform safely all assigned duties; and, when required is properly licensed in accordance with federal, state, or local laws and regulations.

All tasks require that you:

- Use the equipment in accordance with the guidelines set forth by the manufacturer. This includes following all signs and labels, and reviewing any manufacturer's operating manuals.
  - If the instructions provided in the operating manual conflict with this SWP, then follow the instructions in the manual. The manufacturer's instructions prevail over this SWP.
- Review the safety data sheets (SDSs) for each chemical.
- Be trained on this SWP. Training on SWPs must be completed before initial assignment. It is also recommended that you complete refresher training every two years.

1. VENTILATION. Air circulation should be free-flowing and uninterrupted.
  - a. Take a look around your office and consider whether there are:
    - i. Blocked air vents, thermostats or air-intakes.
    - ii. Plants, books, or files obstructing window ventilation units.
    - iii. Open windows throwing off the balance of the ventilation system, or letting in hot or cold unfiltered air.
  - b. If so, correct these problems first.
  - c. For other ventilation problems such as suspected inadequate airflow, contact your supervisor. Your supervisor can work with the Structural Maintenance to verify and correct the problem.
  
2. TEMPERATURE. Check the thermostats (if present).
  - a. If you do not understand the settings on thermostats, speak to your supervisor about getting help from the facilities staff. People generally feel most comfortable when the temperature is kept between 68° F and 74° F. Some ways to help ensure temperatures remain within this range are:
    - i. Thermostats are not blocked by file cabinets, shelves, etc.
    - ii. Thermostats are not subject to drafts or radiant heat gain or loss (e.g. exposed to direct sunlight).
    - iii. Thermostats are not directly next to heat or cold producing units (e.g. refrigerators, unit heaters, coffee pots, etc.)
    - iv. Check for sunlight directly on occupants.
  - b. If necessary, speak to your supervisor about working with the facilities staff to have problems corrected.
  
3. ODORS. Report odor problems to your supervisor and work with them to resolve it. Examples of odor sources include:
  - a. Vehicle Exhaust. This may be a problem if it occurs near a window or air intake. Consider “No Idling” placards or other means to discourage drivers from running vehicles near windows or intakes.
  - b. Kitchen/Food Odors. Avoid grilling and burning food in the kitchen. If you are cooking food, ensure adequate ventilation (this could be a hood or open windows). Be sure food waste is disposed of promptly, that kitchen areas and refrigerators are kept clean, and that dumpsters aren’t near air intakes or open windows.
  - c. Dust and Soil. A HEPA-filtered vacuum will prevent re-suspending dust and tracked-in soil into the air. Use one if it is available.
  - d. Chemical Odors. Not all chemical odors are harmful, but they may be a nuisance. Check the material safety data sheet (MSDS) for the chemical in question for more information. Use all office maintenance chemicals (e.g. cleaning supplies) properly. For instance, don’t spray a chemical that is supposed to be wiped on. Chemical odors may also result from renovation projects or pesticide spraying (see below).

- e. Mold and Mildew (see below).
  - f. Copier and Printer Exhaust. Be sure copiers and printers are adequately ventilated, cleaned, serviced, and well maintained.
  - g. Trashcans. Keep trashcans “clean.” Fouled trashcans create odor and sanitation problems.
  - h. Drain Traps. Drain traps cause problems when water in the drain evaporates due to infrequent use. Sewer gas can be drawn indoors. Pour a quart of water down floor drains at least once a week. Also run sinks and toilets at least once per week.
  - i. Tobacco Smoke. Even though smoking is prohibited in all City buildings, if someone in your workplace is smoking, or there are problems associated with designated smoking area, talk to your supervisor to ensure that a smoke-free environment is maintained.
  - j. Perfumes, Colognes, Air Fresheners, and Potpourri. Many of these have scents which are not appreciated by all staff. Be considerate by limiting use of these products.
4. MOLDS AND MILDEW. Molds, mildew and other fungal spores cause allergies in about 20% of the general population.
- a. Molds and mildew may be present in:
    - i. Building areas of high humidity
    - ii. Places where condensate is forming
    - iii. Areas where pipes or fixtures are leaking
    - iv. Areas where the roof is leaking
    - v. Areas which have been flooded
    - vi. Any areas where building materials are wet or damp
  - b. If you suspect mold or mildew to be a problem, ask your supervisor to work with the custodial or maintenance staff to have the problem corrected.
    - a. For help assessing the presence of dampness and mold, you can use this optional [Dampness and Mold Assessment Tool](#) from NIOSH.
  - c. For spills on carpets involving more than a quart of liquid, contact custodial staff immediately (carpets need to be cleaned, dried, and disinfected within 24 hours.)
  - d. Visible mold growth will need to be removed, and the material disinfected or disposed.
    - i. Custodial staff can remove mold if the total surface area affected is less than 10 square feet, the mold growth is caused by clean water (not sewage or other contaminated water) and the following requirements are met:
      - 1. Personal protective equipment will include gloves, goggles and N-95 respirators (this will require medical clearance, fit testing and training; see the Personal Protective Equipment SWP).
      - 2. Cleanup methods are as follows:
        - For wallboard or other paper (e.g. books), High Efficiency Air Particulate (HEPA) vacuums shall be used after the material has been thoroughly

- dried. The contents of the HEPA vacuum should be disposed of in well sealed plastic bags.
- For carpet, concrete, upholstered furniture or drapes, a wet vacuum or steam cleaner should be used in place of a HEPA vacuum if the material is wet and porous. Otherwise, use a HEPA vacuum after the material has been thoroughly dried. The contents of the HEPA vacuum should be disposed of in well sealed plastic bags.
  - For hard surfaces damp wipe surfaces with plain water or with a water and detergent solution; scrub as needed. A wet vacuum or a HEPA vacuum can also be used depending on the situation and the surface.
- ii. If the total surface area affected is between 10 and 100 square feet, inhouse cleanup may be possible with further requirements. Contact EHS for assistance (415-831-2780).
  - iii. If the total surface area affected exceeds 100 square feet, then outside Contractors with mold removal expertise must be used. Contact EHS for further information (415-831-2780).
- e. To prevent further mold growth, the source of moisture will need to be corrected. Keep in mind that what appears to be a replacement of a section of floor or wall may need to include the roof or window leak.
5. **RENOVATIONS.** If you are participating in a renovation project, the project manager should notify affected staff in advance of the start of work.
- a. Minimally, such letters should describe:
    - i. The scope and location of work to be performed;
    - ii. The duration that the work is expected to last;
    - iii. Inconveniences which can be expected (e.g. nuisance odors);
    - iv. Special precautions to be taken by staff, if any,
    - v. Special precautions being taken to protect staff, if any, and;
    - vi. Contact name with phone number.
  - b. If problems occur once renovation is underway, ask your supervisor to contact the facilities staff in charge of performing or contracting the work to determine if any inconvenience or problem can be alleviated. The use of portable fans, mechanical ventilation, or plastic sheeting to isolate the area can minimize many dust or odor problems.
  - c. Do realize, however, that most renovations inevitably involve a certain degree of inconvenience, and be sure that you have made your best effort to identify the specific nature of the problem. Do not rely on rumor or hearsay to say that a condition is hazardous. Verify!
6. **PESTICIDE SPRAYING.** Follow precautions listed under Renovations. Contact the Integrated Pest Management Program for information on controlling pests without the use of pesticides.

7. **COMBUSTION APPLIANCES.** Combustion appliances are potential sources of carbon monoxide and other combustion gases. Carbon monoxide is odorless, yet toxic, so it is important that appliances are properly vented to remove combustion gases. Note odors (such as gas) when first entering a location containing combustion appliances and visually inspect exhaust components for leaks, disconnections, and deterioration. If a problem is observed, report this to your supervisor.
  
8. **OTHER ISSUES.** Other issues that may create problems are pests, pets, and lack of cleanliness.
  - a. Make sure that the office is dusted/vacuumed thoroughly and regularly (do not focus on frequency as much as the fact that it is done regularly.)
  - b. Make sure that trash is removed daily.
  - c. Make sure that food waste is not kept in offices overnight.
  - d. Look for pests, or signs of pests, such as droppings, chewed materials, etc. Use Integrated Pest Management (IPM) methods of pest control. Avoid spraying near air-intakes, doors, and open windows when possible.

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References:

1. Supplement to Indoor Air Quality Guideline No. 2; Combustion Pollutants in Your Home, California Environmental Protection Agency, Air Resources Board, May 1994.
2. Mold Remediation in Schools and Commercial Buildings, US Environmental Protection Agency, EPA Document 402-K-01-01, September 2008
3. Dampness and Mold Assessment Tool, General Buildings: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2019-115.