

Environmental (Cold/Warm) Room Use Procedures

Scope

This procedure describes the appropriate use and safety guidelines for environmental rooms. The scope of the procedure includes laboratory-oriented environmental rooms such as warm rooms (incubators), cold rooms, and walk-in freezers.

Responsibilities

A. Environmental Health & Safety (EHS)

1. EHS will assist in spill cleanup, decontamination, and disposal.
2. EHS will provide general laboratory safety training.

B. Other Departments/Employees

1. It is the responsibility of laboratory personnel to report emergencies, injuries, or damage to the appropriate parties.
2. It is the responsibility of lab personnel to report major spills to EHS for spill assistance, decontamination, and disposal.
3. It is the responsibility of the department or individual laboratories to maintain personal protective equipment in the areas that may require them.
4. The employee(s) who utilize environmental rooms must monitor stored items and use the spaces as directed.

Procedure

A. General Guidelines

1. Housekeeping/Proper Hygiene

a) Cleaning

- i. *Clean up any spills promptly.*
- ii. *Clean work area and floors as necessary.*
- iii. *Wipe surfaces until dry.*
- iv. *Warm soapy water may be used for regular cleaning along with a soft brush or cloth. Avoid use of abrasive scrubbers.*
- v. *When removing small amounts of mold growth from nonporous surfaces, warm soapy water should be substituted for an EPA approved biocide or fungicide used in a manner that follows the manufacturer's instructions.*
- vi. *Do not use 100% bleach on stainless steel items.*
 - 1) *Bleach is corrosive and can pit stainless steel or cause rust, corrosion, or degradation of room surfaces (including the ceiling, wall, counter, shelves, floor) or electrical and ventilation systems.*
 - 2) *If a bleach solution is used as a disinfectant, it is important that metal surfaces be wiped down with water after its use.*
 - 3) *Always wear compatible gloves during this maintenance process.*

- b) Do not eat, drink, chew gum, apply cosmetics or contact lenses, or smoke in environmental rooms; never bring food or drink meant for human consumption into the rooms. Smoking is not allowed on the TU campus.
- c) Transporting items
 - i. *To travel between laboratories, use the one-glove method to open the door.*
 - 1) *Wearing gloves for PPE protects the user from hazardous materials (e.g. infectious materials, chemicals), but can contaminate common areas including door handles if not used properly.*
 - 2) *You should only remove one glove so you can use your ungloved hand to touch door handles while carrying an item in secondary containment in the gloved hand.*
 - ii. *To facilitate transport, use carts to move items between laboratories and the environmental rooms to avoid drops, spills, or contamination.*
- d) To prevent condensation onto surfaces or containers, close environmental room doors and assure the door stays firmly shut.
- e) Dispose of all trash (paper towels, tubes, etc.) outside the room and promptly dispose of wet/damp organic materials.

2. Ventilation

- a) Environmental rooms are typically unventilated, but there may be dedicated ventilation to outside the building. Fresh air tends to only enter rooms when the door is opened and closed.
- b) Because the atmosphere in environmental rooms is often contained and recirculated, atmospheric hazards within the space may expose personnel, damage internal components, contaminate specimens or samples, or create other hazardous conditions.
 - i. *Avoid forming/releasing aerosols or hazardous fumes within the room.*
 - ii. *Avoid storing hazardous items (see Step B3).*
 - iii. *Avoid use of open flames.*
 - iv. *Keep the door closed at all times.*

B. **Storage & Use**

1. Approved Storage

- a) Use plastic, glass, or metal containers.
- b) Glassware, boxes and equipment should be placed on an open stainless steel or plastic shelf or a steel or plastic cart. Open stainless steel shelves permit airflow throughout the entire storage area. Any item being used for storage that is non-compliant is subject to being removed and discarded.

2. Approved Use

- a) Environmental rooms are used primarily for the growth of cells, organisms storage, temperature-sensitive experiments, and approved, compatible laboratory uses. Use the rooms only for their intended purposes.

- b) Anyone doing prolonged work in these rooms must do so with the door closed. Appropriate safety precautions must be taken to prevent excess stress due to extreme temperatures. Personnel must wear appropriate clothing under PPE (e.g. lab coat).
- c) Use the buddy system. Personnel should not work alone and others should be aware of work being done in environmental rooms. Timers with alarms may also be useful in monitoring room use.

3. Prohibitions

- a) Any items not labeled are subject to being removed and discarded. All items in the room must be labeled with the identity of the container contents and the name of the principal investigator. For any approved chemicals, labeling must follow [labeling guidelines for chemicals](#).
- b) Avoid storing the following hazardous materials inside rooms:
 - i. *Compressed gases & cryogens*
 - 1) *Asphyxiants (including simple asphyxiant gases, dry ice, liquid nitrogen, other cryogens)*
 - 2) *All other compressed gases*
 - ii. *Corrosives (especially volatile acids)*
 - iii. *Flammables*
 - iv. *Toxic chemicals*
- c) Do not store items on the floor or in the sink.
- d) Do not store items in a way that would block entry/exit from inside or from the outside of the room.
- e) Avoid storing hazardous materials -particularly volatile chemicals- directly outside these spaces.
- f) Living Specimens (except nonhazardous microbiologicals)
 - i. *Avoid storing items that may contain mold in the rooms.*
- g) Mold
 - i. *Unabated mold growth on environmental room surfaces or storage containers may contaminate the ventilation system for the room, and lead to illness/injury from inhalation or sensitization to spores. Such contamination may leave the room.*
 - ii. *Minimizing mold growth requires the control of moisture and organic materials introduced into the environmental room, so do not keep the door open for longer than necessary, do not store porous materials or damp items in the room, and do not intentionally introduce mold into the room.*
- h) Porous Materials (e.g. paper/paper products, cardboard, cloth, wood)
 - i. *Avoid storing porous materials that can form mold. If some paper products (e.g. Kim wipes) are required, place the item in a closed plastic container between uses.*

C. Emergency Procedures

1. In case of emergency, call 911 or TUPD for 410-704-4444. If applicable, contact the National Poison Control Center at 1-800-222-1222.
2. Immediately contact Facilities Management at 410-704-2481 for the following:
 - a) Water leaks, temperature issues, or any other mechanical issues.
 - b) The door is difficult to open, sticks, or the opening mechanism does not work.
3. In case of a major chemical or biological spill, contact EHS at 410-704-2949.