Contents

Background ........................................................................................................................................ 2
Leadership and Organization ........................................................................................................ 2
Facility Description ........................................................................................................................ 2
Guidelines for Occupancy ............................................................................................................ 3
Fees ................................................................................................................................................ 4
Contacts .......................................................................................................................................... 4
Pre-installation Inspection and Move of Freezer into Facility ...................................................... 4
Access and Security ....................................................................................................................... 4
Biohazard Precautions .................................................................................................................. 5
Application Process ....................................................................................................................... 5
Facility Equipment Monitoring, Calibration, Maintenance and Repair ........................................ 5
Emergency Contact Information .................................................................................................... 5
Responsibilities ............................................................................................................................. 6
  Summary of PI Responsibilities .................................................................................................. 6
  Summary of Facilities Engineering Responsibilities ................................................................ 6
  Summary of Shared Resources Responsibilities ......................................................................... 7
Background
The Fairview Freezer Facility was established when the Center moved researchers to the South Lake Union Campus in the early 90s. It provides support for all scientific divisions. The 200+ freezers in the facility require substantial energy both to operate the freezers and to cool the building. The facility requires a highly reliable backup power system and an extensive monitoring system to protect the freezers and their valuable contents. Loaner freezers are maintained by Facilities Engineering and are provided to accommodate repairs and maintenance needs. To more efficiently manage the freezer facility, the Center has determined there is a need for a policy and formal application process to obtain space in this shared facility.

The demand for freezer space has increased at a rate of 5-10% annually for the past two decades. The Fairview Freezer Facility (FFF) is at capacity with a waiting list for space. In addition to space limitations, the facility is running at maximum power capacity, therefore, only Stirling freezers (that use 50% less energy) can be accepted.

Leadership and Organization
A Freezer Advisory Committee (FAC) has been created to review and assist with implementation of approved policies and procedures governing the occupancy and management of this facility. Members of the FAC are appointed by Division Administrators and the chair is a volunteer. Current members of this Committee include a Facility Engineering representative, PI/Faculty member from each division, and the Shared Resources representative. The responsibilities of the FAC include reviewing applications for space, priority setting, determining use and capacity, and providing an annual review of this policy and the application process.

Shared Resources has administrative oversight for the FFF and works in conjunction with Facilities Engineering, the users of the facility, and liquid nitrogen vendors for the following:

- Maintaining this policy,
- Managing the application process,
- Freezer Committee membership and communication,
- Providing sample inventory software,
- Managing loaner freezers for the facility,
- Assisting with purchasing equipment,
- Coordinating with Airgas,
- And billing.

Facilities Engineering coordinates the installation of freezers, alarms, and the Ekahau system. They maintain the utilities infrastructure, HVAC, backup power and generators for the space, seismic restraint of freezers, and the repair of equipment via the work order process.

Facility Description
The Fairview Freezer Facility is located on the first floor of the Fairview Building occupying approximately 6800 square feet. It provides cooling, monitoring, and backup power to run freezers and
HVAC during outages. The facility is secured via keycard and video monitoring by Security. Access is granted based on need and PI approval via the application process or a request to Shared Resources.

The Facility provides space for Cryo units, -80°C ultralow, and -20°C freezers. Chest freezers and refrigerators will not be permitted. The principles found in the Center’s Best Practices Guide for freezer maintenance and sample storage must be followed in this facility. The Stirling freezer, which operates off a piston engine, versus a conventional compressor, is the only type of freezer allowed for new requests and replacements within the facility. This piston technology saves significant energy and provides more storage space per square foot of floor space. Since space and power are the limiting factors that restrict the number of freezers that can be placed in the FFF, use of Stirling freezers will allow more freezers to be housed in the facility due to the reduced energy demand as well as its small footprint per storage capacity. Current occupants will be required to purchase a Stirling freezer when replacing existing -80 freezers.

**Guidelines for Occupancy**

All investigators requesting space will be asked to complete the Fairview Freezer Facility Application.

1. Approval for occupancy will be determined by the Freezer Advisory Committee. First priority for occupancy approval will be based upon:
   a. Freezers that support institutional cores
   b. Freezers that support peer-reviewed research
   c. Freezers that support investigators who do not have a lab, but have NIH funding or other extramural-funded research
   d. Freezers used for long-term sample storage with high potential for future use

2. Best Practices Guide recommendations must be followed.

3. Emergency contact names and phone numbers must be kept up to date. Those listed must respond 24/7 to calls from Facilities Engineering when a freezer fails and be available to respond and move samples if needed.

4. All new ultra-low freezers must be set to -70°C. Refrigerators and chest freezers will not be allowed.

5. Only Stirling freezers can be added to the facility.

6. When a compressor fails the PI will have the option to replace/rebuild the compressor once. When it fails a second time the freezer must be replaced with a Stirling freezer. Freezers currently in the FFF that have already been rebuilt must be replaced with a Stirling upon subsequent failure.
7. All -20°C freezers should be scientific freezers. Typical household freezers are not sustainable since the compressor runs continuously wasting energy and shortening the life of the compressor.

8. Installation of the alarm system is required for each freezer. This requires completion of a work order and budget number.

9. Installation of the wireless Ekahau redundant alarm system is strongly recommended for high value research samples. This requires completion of a work order and budget number.

10. The investigator is responsible for purchasing the liquid nitrogen (LN2) necessary for their freezers.

11. The cost of freezer maintenance and repairs will be the responsibility of the investigator. This includes installation, maintenance and repairs on the redundant monitoring system.

12. Sample inventories must be tracked via an electronic inventory system such as FreezerPro, Freezer Works or other similar system. Sample inventories are required to be reviewed annually to determine whether samples can be disposed. Results of the inventory review will reported to the FAC.

Fees
A fee structure may be developed in the future.

Contacts
Contact the Shared Resources Operations Manager at x7520 with questions regarding the application process, this policy, or the approval process. Please contact Facilities Engineering at x4245 to arranged and coordinate moving a freezer into or out of the FFF. Moving into the facility will require an approved application.

Pre-installation Inspection and Move of Freezer into Facility
Shared Resource Administration will notify Facilities Engineering once the application has been reviewed and approved. The lab must meet with Facilities Engineering to review location and complete a work order to move a freezer in or out of the FFF. Timing and coordination with Facilities Engineering is essential for a smooth transition.

Access and Security
Security is provided via cameras and a card reader at the entrance to the facility. Access can be tracked on a daily basis. PIs shall provide a list of authorized personnel requiring access to the Freezer Facility via the application process. This list will be shared with Security once the application has been approved. Additional staff can be granted access by completing a Shared Freezer Facility access request form.

10/6/2014 4
Biohazard Precautions
Faculty and staff who access this facility must complete blood borne pathogens training and receive or decline the Hepatitis B Vaccination. Researchers should assume that all human specimens are potentially infectious and biohazardous. See EHS website for more details on the safe handling and disposal of biohazardous materials.

Dried blood, tissue, urine, saliva, and other biospecimens should be handled according to standard precautions and labeled according to applicable OSHA requirements. All incidents in which personnel are exposed will be documented. In the event of potential exposure and infection, the Center’s response and treatment protocols are available online.

All samples shall be self-contained as a precaution against unintentional thawing/exposure. All biohazards shall be clearly marked and handled according to the prescribed policies and procedures. All Personal Protective Equipment (gloves, masks, etc.) necessary for safe handling of biospecimens shall be the responsibility of the occupant.

Application Process
The Freezer Advisory Committee (FAC) will meet quarterly or as needed to review applications and approve occupancy. Shared Resource will notify the applicant and Facilities Engineering of the status of each application. The FAC will review this policy annually and provide recommendations as necessary. Shared Resources will schedule and record meeting minutes.

Facility Equipment Monitoring, Calibration, Maintenance and Repair
It shall be the Facilities Engineering’s responsibility to maintain and repair the temperature alarm and monitoring system(s) and the building infrastructure, including the emergency backup power and loaner freezers.

Occupants are responsible for maintaining their own freezers, individual probes and monitoring equipment for their freezers, and complying with the requirements of this policy. The cost of repairs and/or replacement of temperature and monitoring probes/equipment, compressors, gaskets, freezers, etc. shall be the occupant’s responsibility.

The Facilities Engineering can provide a loaner freezer to use during defrost or in the event of a freezer failure to use while repairs or replacements are being arranged. Use must be coordinated with the Facilities Engineering and Shared Resources. Four weeks is the MAXIMUM length of time for use unless FE has been contacted via work order and still waiting for repairs to be completed or parts to arrive. Use beyond this period will result in a “rental” fee charged per week.

Emergency Contact Information
During the application process, emergency contact information is requested and must include current contact information for the PI, and backup personnel. Once occupancy has been approved by the FAC, the Facilities Engineering Emergency Contact Information sheet must be completed and posted.
prominently on the front of the freezer. The PI is responsible for reviewing and updating the emergency 
information at least annually. When completing the form, the temperature set point and alarm set point 
must be provided. FE requests that the completed form be printed on yellow card stock.

Responsibilities

Summary of PI Responsibilities
1. Ultralow freezers set at -70°C.
2. Covers costs associated with maintaining and repairing freezers.
3. Pays for any liquid nitrogen (LN2) costs.
4. Clearly label all bio-hazards and handle according to the prescribed policies and procedures. 
   See EHS website for details.
5. Movement of all equipment and supplies shall be coordinated with the Facilities Engineering 
   and requested by the occupant via a work order request.
6. All monitoring probes shall be the expense of the occupant.
7. Emergency contact information must be kept up to date and reviewed annually.
8. Emergency contacts must respond when contacted after-hours to assist with responding to 
   alarms and moving sample inventory.
9. All samples must be tracked via an approved electronic sample inventory system (Freezer Pro).
10. Sample inventory must be reviewed annually and samples disposed of properly.

Summary of Facilities Engineering Responsibilities
1. Work with the occupant to facilitate a smooth move into the facility.
2. Maintain the electrical and backup power system for the FFF.
3. Maintain wired and wireless notification systems.
4. Coordinate the short-term use of back-up freezers with Shared Resources and occupant.
5. Provide quarterly PMs.
6. Respond to alarms and notify owners.
7. Coordinate repairs.
Summary of Shared Resources Responsibilities

1. Maintain written policy.
2. Provide security access to the facility.
3. Coordinate FAC, application and review process, and record meeting minutes.
4. Assist labs with the purchase of new freezers.
5. Provide information on sample inventory software, training and support.
6. Provide process for billing and pricing.
7. Collect emergency contact information.
8. Provide guidance to researchers to develop an emergency plan for their freezers.