



University of Colorado **Anschutz Medical Campus**

Campus Administrative Policy

Policy Title: **Monitoring Research and Clinical Equipment**

Policy Number: 3053A Functional Area: General Administration

Effective: June 26, 2024

Approved by: Terri C. Carrothers
Executive Vice Chancellor for Administration & Finance, CU Anschutz

Applies to: CU Anschutz Medical Campus

A. **INTRODUCTION**

1. This policy is applicable to all University of Colorado research and clinical equipment that, because of contents, need monitoring for equipment status, temperature, and condition as detailed in this policy.
2. For buildings/sites that are on the University of Colorado Anschutz Medical Campus (Anschutz); including Children's Hospital Colorado, University of Colorado Hospital, Fitzsimons Redevelopment Authority, and CU Medicine; the Equipment Monitoring System (System) will monitor equipment and notify owners when system parameters are out of range. The Facilities Management and Planning Division (Facilities) will install and assist in initial setup of the System infrastructure in the research, storage, and clinical facilities to support equipment monitoring, except in expressly waived areas. Please contact Facilities Dispatch for additional information.
3. The Vice Chancellor for Research, and the Executive Vice Chancellor for Administration and Finance must approve exceptions to this policy where University Risk Management (URM) insures equipment and its contents against loss.
4. For all other buildings/sites, equipment owners can choose to use the System or contract with a third-party vendor whose system provides similar or equivalent protection and features.
5. Where research or clinical processes maintain products in monitored containers and require a particular level of physical security such as "Scheduled" drugs, certain pharmaceuticals, high-risk chemicals, etc., the monitored container will also provide the requisite security components, alarm, and notification protocols.

B. TABLE OF CONTENTS

A. Introduction.....1
B. Table of Contents.....2
C. Purpose.....2
D. Policy Statement2
E. Standards.....3
F. Equipment Owner Responsibilities.....4
G. Facilities Responsibilities, as defined in A.2 above.....5

C. PURPOSE

1. The policy defines "monitored equipment" as research or clinical equipment vulnerable to temperature change losses or mechanical failure and their respective contents connected to the System or an independent monitoring system.
2. This policy will identify the responsibilities of the equipment owner and Facilities relative to the monitoring of certain equipment.
3. This is a requisite supplement to other actions taken by Equipment Owners to protect research equipment and contents.
4. This policy requires owners of the equipment within the policy's scope to connect to the university's System if on campus as described in A2 or an appropriate independent monitoring system if off campus as described in A3, to receive warning of temperature changes or other equipment alarms to prevent damage to or loss of equipment and content. Failure to connect to a monitoring system may limit reimbursement of losses.

D. POLICY STATEMENT

In order to preserve and protect the integrity of University research, assets and clinical support, this equipment monitoring policy is hereby established.

This policy requires the monitoring of certain research or clinical equipment vulnerable to temperature change losses or mechanical failure. **Failure to connect to a monitoring system will, in the event of a preventable temperature-related loss, result in denial of any claims submitted for losses of research material, clinical support medications, or other covered materials contained within the equipment.**

Equipment encompassed by this policy includes but not limited to:

1. All ultra-low temperature (ULT) -80°C freezers, as well as -20°C, -4°C freezers; combination refrigerators/freezers, other refrigeration equipment, incubators, and liquefied gas containers protecting ULT units, with contents of \$10,000 or more in value; and
2. All equipment that contains items that when warmed to ambient temperatures will present a health threat or other safety issue; and
3. All equipment that contains items whose replacement is difficult or not possible.

4. Owners of equipment not directly included within the scope of the policy may choose to enroll equipment in the program to provide the early warning of risk to equipment contents.

University Risk Management (URM) recommends that to minimize equipment contents losses due to temperature variation or a mechanical failure of the equipment, the owners should spread contents among various equipment units, whenever possible. This will minimize the replacement cost of the contents of any one unit. In no case should an individual unit's contents replacement cost exceed \$2,000,000. Contact University Risk Management for specific insurance information.

E. STANDARDS

1. All new ULTs purchased for use in Anschutz facilities shall have installed ports to allow for external sensors and wire to be installed for connection to the monitoring System. The Procurement Service Center (PSC) has the ULT specification requirements and help ensure these specifications are included in the purchase.
2. Equipment Owners of existing research and clinical equipment, within the scope of this policy, should upgrade or modify affected equipment to accommodate monitoring. Facilities Management or commercial vendors can evaluate -80°C units for sensor installation. The Equipment Owner must first coordinate the placement of equipment to ensure the appropriate circuits, sockets; electrical support, etc. are available for the desired location. Facilities Management will work with each equipment owner on the installation or relocation of electrified equipment within university owned and managed buildings.
3. On the Anschutz campus, Facilities will assist with connecting all specified research or clinical equipment and enrollment into the System. Facilities may assess a nominal charge to cover parts and installation, depending on the number of units and complexity of the installation.

F. EQUIPMENT OWNER RESPONSIBILITIES

1. The "Equipment Owner" is the individual responsible for the custody, maintenance, and care of the equipment, its contents, and any related research products or processes. This is typically the Principle Investigator or Clinician overseeing research and patient care respectively.
2. The Equipment Owner must first coordinate the placement of equipment to ensure the appropriate circuits, sockets, electrical support, etc. are available for the desired location. Facilities Management will work with each equipment owner on the installation or relocation of electrified equipment in university owned or managed buildings.
3. Any cost associated with the purchase, repair, or upgrading of equipment is the financial responsibility of the Equipment Owner.

4. Ongoing nominal subscription costs for the System, and access to 24/7 monitoring, trending and alarming, will be covered by the University.
5. Periodic replacement or calibration of System sensor probes are the responsibility of the Equipment Owner.
6. As a best practice, URM and Environmental Health & Safety (EHS) strongly recommend that the Equipment Owner maintain a reasonable inventory of contents and the approximate replacement value of each item in order to: evaluate the risk the equipment and its contents present; facilitate any claims for losses; provide critical information regarding safety relating to contents and quantify the environmental risks related to the equipment and their contents. EHS offers both a [biological inventory](#) and [chemical inventory](#) web modules for Equipment Owners and researchers to maintain their freezer inventories. Contact EHS for assistance at EHS.hazmat@cuanschutz.edu or BIOSAFETY.PROGRAM@cuanschutz.edu.
7. The Equipment Owner is responsible for populating the System software with current contact information for all persons associated with the monitored equipment and to ensure the contact information is updated immediately when the information changes. The Owner should review the information quarterly. Facilities will assist with software setup, alarm parameters and notification settings.
8. The Equipment Owner should be familiar with the fragility of container contents so the temperature alarm calibration and set points, adjusts, and programs the freezer alarm panel considering response time, availability of other containers, degradation of contents, etc.
9. The Equipment Owner should respond in person or send a representative capable of investigating and/or correcting the cause of the alarm after receiving a notification of an alarm. Response may include the relocation of equipment contents to other support equipment to maintain the appropriate condition or temperature. Facilities maintains a limited number of short-term loaner ULT freezers for this purpose. Call Facilities Dispatch at (303) 724-1777 or at dispatch@cuanschutz.edu for assistance. It is very important to call the campus emergency information hot line at 1-877- INF0-070 (or 1-877-463- 6070) first to determine if there is a building or system-wide outage. Responders should check their respective email accounts for information about wide outages, specific freezer or multiple equipment alarms. The Information hot line will be updated with pertinent information if there is a building or systemic outage. However, an outage does not preclude the need for the equipment owner to respond and otherwise preserve freezer contents.
10. Response to alarms and the protection of research and clinical processes, equipment, and materials are the sole responsibility of the Equipment Owner, though the owner may delegate or share response to or with qualified staff members.

11. The Equipment Owner is responsible for minimizing alarms by providing reasonable preventive maintenance to the equipment to ensure its stability, reliability, and lack of false or nuisance alarms. The Equipment Owner should maintain a service agreement with a qualified service provider and ensure service providers have access to the equipment for servicing. Facilities can provide such services for a fee.
12. For locations as defined in A.3, Equipment Owners will be responsible for securing the services of a third-party provider to monitor equipment to ensure the requirements of this policy are met.

G. FACILITIES MANAGEMENT RESPONSIBILITIES, AS DEFINED IN A.2 ABOVE

1. Facilities is the university entity responsible for defining System standards applicable to Anschutz and maintaining the shared System infrastructure on campus.
2. Facilities personnel do not monitor or respond to equipment alarms but can work with owners to test the alarm system as needed. Response to alarms is the responsibility of the Equipment Owner.

Notes

1. History
 - April 18, 2016: Adopted by the Chancellor
 - June 20, 2018: Modified to reflect a Campus-wide effort to recast and revitalize various Campus policy sites into a standardized and more coherent set of chaptered policy statements organized around the several operational divisions of the university.
 - June 26, 2024: Modified to reflect a campus-wide effort to upgrade the System to a new, wireless and cloud-based System, and to remove the old CCure-based System. Also, the transfer of System responsibility to Facilities from the Electronic Security Division.
2. Cross References/Appendix: N/A
3. Responsible Officer: Associate Vice Chancellor, Facilities Management and Planning
Prepared by: Associate Vice Chancellor, Facilities Management and Planning
Reviewing Office: Executive Vice Chancellor for Administration and Finance