

Purchasing Procedure-Refrigerator/Freezer for Laboratory/Teaching/Research

Subject: Refrigerators/Freezers for Laboratory, Teaching and Research
Applies to: All UKANS and KURES business transactions for all units reporting to the Lawrence Campus
Fund Impacted: All Funds (KU, KUCR and KUEA)
Authority: KU Purchasing Policy dated March, 1 2013–Section III Applicability
Effective Date: May 30, 2014

Summary: Effective May 30, 2014 all Refrigerators/Freezers used for Laboratory, Teaching and Research shall be purchased using the KU Procure to Pay System (KUPPS) and adhere to the criteria listed below.

Scope Defined: Refrigerators/Freezers for Laboratory, Teaching and Research shall adhere to the following criteria:

Laboratories:

- Unit **shall not** be domestic/residential style/type.
- Unit **must be** lab-grade quality that has appropriate certifications (UL, CSA, SEFA, FM, etc.) and markings to indicate this as well.

Laboratories/Teaching/Research:

- No food or beverages intended for human consumption are allowed to be stored within any such device within a laboratory, teaching, research or any environment where other hazardous materials are stored or handled.
- The acquisition and installation of a refrigerator or freezer within a laboratory or any other teaching or research space environment requires review and approval by the KU-EHS Dept.
- The following information must be provided: the name of the person responsible, building, room number, location within the room where the device is to be located, the purpose of the device and the materials that will be stored within the unit. ***

Categories/Types:

- General Scientific Purpose – for storage of non-hazardous lab samples & materials.
 - These are not approved for storage of flammable/combustible liquids/materials.
 - These are not designed/built for storage of chemicals/materials that give off corrosive or detrimental fume/vapors or other emissions (i.e., acids, halogenated solvents).
 - These may also not be appropriate to house scientific process/analytical equipment if it gives off such problematic fumes/vapors or emissions. Special purpose coolers may be required for such equipment/activities
- Hazardous Materials Purpose – for storage of laboratory samples and materials that have hazardous chemical properties or emit hazardous chemical fume/vapors/emissions.
 - Unit must have appropriate certification (UL, CSA, SEFA, etc.) and marked/labeled as such.
 - Unit must meet the requirements of NFPA 45 (2011 edition) as being listed as special purpose unit for use in a laboratory.
 - Per NFPA 45, each device shall be prominently marked to indicate whether it meets the requirements for safe storage of flammable/combustible liquids and/or other hazardous materials.
 - Interior storage area/compartment of device must be sealed, vapor/fume proof and be free of any ignition/spark generating components (i.e., no thermostat, no lights, no icemaker, etc.). Unit must be manual defrost and any thermostats must be mounted/accessible outside of the internal storage area/compartment
- Explosion-Proof Purpose – for storage of laboratory samples/materials that have hazardous chemical properties or emit hazardous chemical fume/vapors/emissions **AND** the lab/room it is housed within presents a hazardous environment (i.e., flammable atmosphere).
 - Unit must have appropriate certification (UL, CSA, SEFA, etc.) and marked/labeled as such.
 - Per NFPA 45, each refrigerator, freezer, or cooler shall be prominently marked to indicate whether it meets the requirements for safe storage of flammable/combustible liquids and/or other hazardous materials and is “explosion-proof”.
 - Unit must meet the requirements of NFPA 45-12.2.2.3 (2011 edition) as being approved for Class I, Division 1 or 2 locations and shall be installed in accordance with Article 501 of NFPA 70, National Electrical Code. Thermostat and compressor components must be isolated outside of the storage compartment within a vapor-proof enclosure. Electrical connections must be made by hardwiring to prevent sparking and accidental disconnection.

- Interior storage area/compartment of device must be sealed, vapor/fume proof and be free of any ignition/spark generating components (i.e., no thermostat, no lights, no icemaker, etc.).
- Units must be manual defrost.

- Prefer that all (3) Categories/Types be CFC and HCFC free refrigeration system and insulation.

- Prefer that all (3) Categories/Types be EPA Energy Star rated (not sure that this is available for lab grade/quality devices yet)

Exceptions: None

Process

Instructions: Refrigerators/Freezers for Laboratory, Teaching and Research are to be ordered via KUPPS from the Fisher Scientific KUPPS catalog or from another KU Purchasing approved supplier.

Assistance: Contact Purchasing Services by phone at 4-5800 or via email purchasing@ku.edu.