

## Storage of Flammable Chemicals in Refrigerators

A new enforcement directive from the City of Durham Fire Marshal requires that all refrigerators, freezers or coolers utilized in laboratories where chemicals are used be prominently labeled to indicate whether they are or are not suitable for storing flammable liquids.

Class I flammable liquids are defined as "any liquid having a flash point below 100 degrees F and having a vapor pressure not exceeding 40 psi absolute at 100 degrees F". Class I liquids are sub-divided as follows:

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| Class I-A | Those liquids having a flash point below 73 degrees F and a boiling point at or below 100 degrees F. |
| Class I-B | Those liquids having a flash point below 73 degrees F and a boiling point above 100 degrees F.       |
| Class I-C | Those liquids having a flash point at or above 73 degrees F and below 100 degrees F.                 |

Refrigerators utilized for storage of chemicals in laboratories throughout the University, Hospitals and Medical Center generally fall within the following three types:

1. Refrigerators designed to store flammable liquids with all electrical equipment that meets Class I, Division I requirements.
2. Refrigerators that have been modified by a licensed electrician that meet the Class I, Division I requirements.
3. Residential-type refrigerators that cannot be utilized to store flammable liquids, but are used for storage of other chemicals.

Type 1 & 2 refrigerators will require a blue and white label affixed to the refrigerator which states: "NOTICE - This refrigerator is approved for the storage of flammable materials. No food or drinks may be stored in this refrigerator."

Type 3 refrigerators will require a red and white label affixed to the refrigerators which states: "WARNING-This refrigerator is not approved for the storage of flammable materials. No food or drinks may be stored in this refrigerator."

The Fire Safety Division has designed and printed self-adhesive vinyl decals to be used for this purpose to ensure that all Duke University refrigerators will be in compliance by December 30, 1995.

Please notify us at 684-5609 of the number of Type 1 and 2 refrigerators installed in your work area. **Please note that if you do not have positive validation (manufacturer's label or**

**service order for modification) the refrigerator is not considered suitable for storage of flammable materials.**

OESO personnel will respond and place the appropriate label on your refrigerator. In order to ensure consistency and uniformity labels will be placed on the upper edge of the door (hinge side) of each refrigerator, freezer or cooler. If a combination refrigerator/ freezer is utilized the label will be affixed to the refrigerator door only. Please clear this area of any posters, notes, etc..