AMHERST COLLEGE

THE USE AND MAINTENANCE OF HEATING EQUIPMENT IN LABORATORIES

PROPER USE AND HANDLING FOR ALL EQUIPMENT

- All users shall be trained in the safe use and maintenance of the equipment with which they are working
- The use of flammable materials, combustible materials, oxidizing materials, and pressurized containers in and around heating equipment shall be avoided
- If these materials must be in or around heating equipment, a detailed risk assessment, including specific procedures must be conducted, put into writing, reviewed by all users, and approved by safety personnel
- All procedures involving the use of heating equipment must include a maximum temperature
- All heating equipment should be turned off overnight, whenever possible. Overnight reactions must be labelled in accordance with the College’s policies
- A thermometer should be used to monitor temperature, whenever possible
- Equipment must have a device that shows when they are hot and in use – such as a light or a sign
- Heating mantles and hot plates should be used in a fume hood or a glove box whenever possible
- All Principal Investigators should maintain an updated list of all the users of each equipment

PROPER USE AND HANDLING FOR SPECIFIC EQUIPMENT

- Ovens shall not be overcrowded as this may impede airflow
- If plastics must be used in ovens, they shall not be left overnight and the temperature must be < 100°C
- Items shall never be placed in the bottom of an oven (below the lowest rack)
- Heating mantles and hot plates should be used in a fume hood or a glove box whenever possible
- A ring clamp must be used to support heating mantles so as to allow air circulation around them

PROPER MAINTENANCE

- All Equipment shall be thoroughly inspected for defects/malfunction once a year by owner
- All Defected Equipment shall be reported as soon as the defect is noted
- All Equipment shall be put out of service until any potential defects are examined and repaired by appropriate personnel
- Any spills onto the equipment must be thoroughly cleaned up before turning on the equipment