

APPENDIX 4

Safe Operating Procedures for Glass Vacuum Lines

Before operating vacuum pumps, carry out visual inspection of glassware to check for cracks and check that all stopcocks are free to open and close. Glassware which is regularly subjected to temperature extremes or which is liable to experience mechanical stress in cleaning operations should be routinely checked by the glassblower for strain.

Glass Dewar vessels should be contained in metal or plastic vessels.

Glass bulbs with a volume greater than 100 cm³ should be taped or encased in a metal mesh cover.

Any vessel which is cooled in liquid nitrogen should **NOT** be allowed to warm up without first being evacuated to a pressure of less than 1 mm Hg in order to ensure that no liquid air has been condensed.

Carry out risk assessment of work to be undertaken.

Check that all Personal Protective Equipment (PPE) required by the risk assessment is available,

- e.g. Low risk: safety glasses, lab. coat.
 High risk: full face visor, gloves, lab. coat and any safety screen.

INFORM OTHER WORKERS IN THE LABORATORY OF THE RISKS ASSOCIATED WITH THE PROCEDURE.