ADVISORY 7.0
WASTE MANAGEMENT PROGRAM

The following elements are presented for the purpose of implementing a waste reduction program, which strives to minimize the waste generated at the University while maintaining effective functionality throughout all departments and services:

- **Perform a Waste Audit** - What are the wastes generated by a process, experiment or treatment? Where and how is a process, treatment or experiment being done? Where can waste generation be reduced or eliminated?

- **Examination of Housekeeping** - Creating adequate safe storage and handling techniques using appropriate containers and proper dispensing of supplies and resources can reduce spillage, waste and oversupply.

- **Material Substitution** - Replace a hazardous material where possible with a material that is less hazardous, more easily disposed, or a treatable one.

- **Equipment Redesign** - Sometimes processes, not the product, are the cause of contamination or pollution. Cost-effective equipment upgrades should be designed and implemented, where applicable.

- **Recycling and Reuse** - On-site and off-site recovery options may be available. Distillation, and absorption, filtration, or electrolysis may be alternatives to current processes.

- **Waste Exchanges** - There can be on-site and off-site exchanges between departments, labs, colleges, etc.

- **Detoxification** - Chemical neutralizations, biological (microbiological) treatment, and thermal (incineration and wet oxidation) may be alternatives.

- **Reduction of Scale** - Micro level experimentation should be considered. Micro-technologies, micro-scale glassware, flow and transfer systems based on small internal diameter tubing, and more sensitive spectrometers may be used to reduce the amount of waste generated.

- **Purchasing Criteria** - Use vendors who will recycle products, (e.g., gas cylinders). Purchase only quantities needed (volume for your dollar does not necessarily equate to savings when disposal costs are high).

- **Control Reagents or Materials That Deteriorate** - Shelf life should not be exceeded. Date and monitor materials. Peroxides, water reactive chemicals and pyrophoric chemicals should not remain in laboratories; laboratory destruction procedures should be utilized in these cases.

- **Preplanning experiments, treatments and processes** to identify hazardous waste by-products should be a part of the project.

- **Planning for Recapitalization of Facilities** to accommodate new research, heating, ventilation, air conditioning, stack emissions, mechanical, and utility core infrastructure should be emphasized in all new design and construction.

Every University Community member has a part to play in reducing hazardous waste generation and raising the quality of life in support of the University of Cincinnati's Policy Statement on Safety and Environmental Health at the University of Cincinnati.