This section of the CHP describes standard operating procedures for procuring, receiving and inventorying chemicals. An important program goal is to establish a centralized chemical stockroom in each department from which chemicals are procured, received, inventoried and distributed to laboratories. Centralizing these activities would:

- allow better monitoring of chemicals stored and used and their location within the facility;
- reduce the waste involved in duplicate purchases;
- reduce waste disposal costs;
- facilitate compliance with regulations.

Chemical Purchasing and Procurement

Effort must be made to purchase smaller quantities of chemicals (for example, amounts that will be used up in 3 to 6 months). Never acquire more than a one year supply.

Chemicals will be purchased in smaller sized containers. When large containers are purchased, significant portions often remain unused and must be disposed of. The lower unit cost for bulk purchases is outweighed by the cost of additional storage and disposal of old, unused materials.

Check the departmental purchase against the chemical inventory to eliminate duplicate purchases and use existing chemicals first. Contact other departments to inquire about excess chemicals they have that you might need.

Make certain there are adequate facilities and equipment to safely store/work with extremely hazardous substances (carcinogens, reproductive hazards, and acutely toxic substances, inhalation hazards, etc.) before ordering these materials. Consider substituting less hazardous materials.

All chemical purchase orders must include a request that Material Safety Data Sheets (MSDS) be sent to the CHO at the Environmental Health and Safety Office, Music Building Room B37A. The MSDSs will then be distributed so that employees will have access to them during working hours.

Chemical Receiving. End users must inspect all incoming shipments for the following requirements:

- Proper labels must be attached (see Chapter 4);
- Containers must be intact and in good condition;
- Any leaking containers must be placed in an appropriate secondary container immediately and treated as a chemical spill. Report the incident to Public Safety (x7777) immediately. See Chapter 8 on emergencies for more detailed information about chemical spill response.

Expiration dates must be determined and assigned to each chemical container coming into the facility which contains any of the following:

- Picric acid and picrates;
- Perchlorates;
- Peroxides;
• peroxidizable materials;
• monomers that violently polymerize;
• materials known to deteriorate or become unstable or reactive over time.

The expiration date should be set ≤ one year after the date of acquisition. They must also be labeled with their opening dates. See Chapter 5 on storing chemicals and Chapter 6 on handling specific classes of chemicals for more information about unstable and reactive chemicals.

All chemical receiving areas will have appropriate personal protective equipment and spill control equipment available in case of a broken container. In addition, each chemical receiving area should have an appropriate fire extinguisher, ≤ 50 feet from any point in the space; safety shower and eyewash station, ≤ 25 feet of the storeroom or laboratory door, in case of chemical splashes or spills on the body.

All individuals involved in chemical procurement/receiving must be included in the laboratory employee training programs discussed in Chapter 10.

*Chemical Inventorying*

The departmental chemical inventory must be updated on an annual basis to ensure that it reflects what is currently stored and used in laboratory facilities.

Each department head must ensure that documented chemical inventories are provided annually to the CHO. PIs must supply accurate chemical inventories to their department head. This inventory will be used to fulfill reporting requirements under the EPA’s Superfund Amendment and Reauthorization Act (SARA) of 1986. Individuals, communities, and emergency response personnel have a right to know the types and amounts of chemicals used and stored in laboratory facilities. If a facility has amounts equal to or more than the threshold planning quantity (TPQ) of any substance listed in the Appendix of 49 CFR 172.101 (SARA Title III) (or designated by the state or local environmental agency), at any one time, there are notification requirements that must be complied with.

Chemicals in storage areas must be evaluated at least annually for deterioration, container integrity, and for their age. Those that have expired must be marked for destruction or disposal or, if warranted, given a new expiration date. Particular attention must be paid to unstable chemicals such as ethers and other peroxidizable materials.

Minimize handling/moving of bottles while taking the inventory, and never move potentially explosive materials. Any potentially explosive chemicals whose shelf-life has expired must not be handled or moved by any laboratory employees taking inventories until the CHO is contacted. It is better to be over-cautious than under-cautious under these circumstances.