



## Inventory Control Pollution Prevention

*A good inventory control system can help improve customer service and operating efficiency by ensuring what is needed, when it is needed, without stressing operating capital. Large and small companies alike can benefit by adopting best management practices for inventory control.*

Inventory includes raw materials, component parts, work in process, finished goods, packing and packaging materials and general supplies. Inventory control concerns when to replenish and by how much.

Good inventory control measures are important to help you reduce waste management costs. Inventory control issues facing hazardous waste generators are unused products and expired products that require disposal. Hazardous waste inspectors sometimes find half-filled containers of unused or unlabeled products at a facility. This may cause the company to spend money on analytical tests to characterize waste, ensure proper disposal and, if the product has leaked onto the ground, clean-up and closure.

### What is Pollution Prevention?

Pollution prevention (P2) is the use of source reduction techniques to reduce risk to public health, safety, welfare and the environment and, as a second preference, the use of environmentally sound recycling to achieve these same goals. P2 addresses all types of waste and environmental releases to the air, water and land.

### Inventory Control Systems

There are two types of control systems. Various combinations of these systems are used in developing inventory control procedures.

- 1) The two-bin system (sometimes called the min-max system) involves the use of two bins, either physically or on paper. The first bin is to supply current demand and the second to satisfy demand during the replenishment period.
- 2) The reorder-cycle system, or cyclical-review system, consists of ordering at fixed regular intervals.

### Inventory Control Strategies

Inventory control strategies can help prevent pollution or significantly reduce the amount of waste generated. The basics of an inventory control program include:

- tracking materials;
- minimizing inventory;
- maintaining storage conditions;
- setting inventory limits;
- reducing the number of similar products used;
- substituting non-hazardous materials where possible;
- contacting suppliers regarding using a product past the expiration date; and
- using a waste exchange to provide overstocked or unwanted materials to another organization.

### Track Materials

Track materials to help reduce the amount of waste generated. Inspect deliveries and return any unacceptable materials to the supplier. Label and date new materials as they are received. Keep records of material usage. Inventory materials at

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least once each year and consider using a computer software program to track your inventory. Use the oldest stock first to keep materials from spoiling (first-in, first-out or FIFO).

### Minimize Your Inventory

Keeping the amount of materials purchased to a minimum will reduce the cost of disposing of unused material. Ordering smaller containers of materials will help reduce disposal of any excess unused material. A just-in-time system immediately moves inventory from receiving to use. Implementing a just-in-time inventory system, placing orders on a regular basis, requires purchases to be made only to replenish what has been sold since the last order. Purchasing materials in reusable or recyclable containers also helps minimize inventory.

### Maintain Storage Conditions

Maintaining appropriate storage conditions can extend the life of materials, prevent spills and leaks, and prevent materials from getting mixed together. Maintain proper temperature and humidity in storage areas. Make sure storage areas are covered and secure. Rainwater can contaminate uncovered materials, and heat and sunlight can degrade certain materials. Maintain legible labels on all containers and segregate materials by chemical compatibility. Storage of incompatible materials should be done in separate areas. Inspect storage areas routinely to spot spills and leaks. Set inventory limits for the storage of materials. More hazardous materials increase the risk of spills, fires and exposures from releases.

### Material Substitution

Work with suppliers and manufacturers to determine if non-hazardous products exist that can perform as well as the more hazardous products currently being used. Reduce the number of similar products used, such as solvents. Evaluate to see if fewer products can be used and still get the job done, thus reducing the amount of hazardous waste generated.

### Other Strategies

Contact suppliers or manufacturers to determine if materials can be used beyond their expiration date. Many products can be used beyond these dates with no noticeable performance reduction. Some suppliers will also take back excess or off-spec products, or take back expired products, as another method of reducing the need for disposal. Use waste exchanges for overstock or unwanted materials.

### Benefits of Inventory Control

The benefits of inventory control include:

- reducing disposal costs of unused materials
- saving money on analytical tests to determine how unknown materials should be disposed
- reducing money tied up in unused inventory
- generating less hazardous waste.

### Where to Get More Help

Contact the Office of Compliance Assistance and Pollution Prevention at (800) 329-7518 for more information or check the Division of Environmental and Financial Assistance website at [epa.ohio.gov/defa/](http://epa.ohio.gov/defa/). For information about ways that other Ohio companies may be implementing pollution prevention, and possible ideas for your facility, please refer to our [Encouraging Environmental Excellence \(E3\) web page](#).