

The purchasing department is typically the gateway through which all the products and services used by a business must pass. From staples to computer equipment and all manner of things in between, purchasers shop for an extremely varied list of goods and buy them in large quantities. Consequently, purchasers who emphasize waste prevention can dramatically reduce the amount of waste their companies generate. Strategies that keep a sizable portion of goods out of the waste stream can mean millions of dollars in savings in purchasing costs – and help improve environmental quality.

Addressing waste prevention through thoughtful purchasing focuses attention where it can have the greatest effect – at the beginning of the waste generation process. It is purchasers who obtain the products and materials that will eventually be discarded. And as the link between users and suppliers, it is purchasers who decide which products and services are purchased, where they come from, their mode of delivery, and many other issues with environmental implications.

Purchasing with waste prevention in mind also has business benefits – primarily in the lower operating costs that result from using fewer products. For instance:

- ☞ Buying fewer products, services, and materials saves money up front in avoided purchasing costs.
- ☞ Buying less can reduce the need for warehouse space and the associated costs of energy, maintenance, and disposal.
- ☞ Reducing purchases and using products and materials longer may allow businesses with multiple facilities to reduce the size of delivery fleets, leading to lower vehicle, personnel, maintenance, and fuel costs.

Other benefits of purchasing for waste prevention include:

- ☞ Fewer losses from spoilage – More efficient ordering practices can eliminate costly overpurchasing of perishable items that end up as waste before being used.
- ☞ Increased operational efficiency – Since durable equipment and supplies are often of better quality overall, they can decrease downtime for repairs and replacement, increasing productivity.
- ☞ Closer interaction with suppliers – Working with suppliers to change wasteful products and reduce packaging can lead to other product and process improvements.

Purchasing for waste prevention also encourages vendors and manufacturers to create new markets for less wasteful goods and services. For example, buying repairable and remanufactured products has the potential to spur expansion of the repair and remanufacturing industries. This not only encourages development of a repair and reuse infrastructure, it can also help create jobs.

Part II addresses the following steps involved in adapting a business's purchasing procedures to waste prevention:¹

- ☞ Changing the way products are bought, stored, used, and discarded
- ☞ Learning the attributes of products that produce less waste
- ☞ Making connections between users, purchasers, and vendors
- ☞ Adapting a business's purchasing policy for waste prevention
- ☞ Adapting a business's purchasing documents for waste prevention

Purchasing for Waste Prevention/Buying Recycled: Complementary Strategies

Like purchasing for waste prevention, buying products with recycled content is an important part of "green" purchasing. Generally, the use of recycled products substantially reduces the energy, water, and other natural resources associated with manufacturing new products. In addition, it reduces the amount of waste destined for landfills and incinerators.

Often, purchasing for waste prevention is viewed as an alternative to buying recycled, or even as a conflicting approach. This handbook treats them as complementary strategies: the first step should always be waste prevention purchasing; buying recycled should be held in reserve for situations where waste prevention is not feasible or has been fully tapped. For example, reusable shipping containers can be used hundreds of times, and they are usually the best choice for the environment and a business's bottom line. But when reusable containers are not appropriate, or can only be used in some applications, the next best option is corrugated cardboard boxes that contain some portion of recycled materials and are recyclable themselves.

1. BUYING, STORING, USING, AND DISPOSING OF PRODUCTS

There are two overall goals of purchasing for waste prevention: (1) eliminating as many unnecessary products as possible and (2) ensuring that the products you do buy use as few materials as possible and are used as efficiently as possible.

Efficient Buying

Begin by asking a few basic questions:

- ☞ Do we need this product or service?
- ☞ Does it really contribute to the product or service the business provides?
- ☞ Are there other ways to meet the need served by the product or service that might generate less waste? For instance, perhaps a form designed in-house on a computer can replace preprinted inventories that go out of date.

Using the Solid Waste Hierarchy in Purchasing

There are many factors to consider when buying products and services for waste prevention. A good way to start is to evaluate potential purchases according to this waste prevention hierarchy:

- Products/services that reduce or eliminate waste
- Products/services that promote reuse
- Products/services that promote recycling

Look for products and services that belong to one or more of these categories. For instance, a product that both prevents waste and contains recycled ingredients — such as a recycled plastic container of concentrated detergent (which eliminates the waste generated by numerous smaller packages) — offers greater benefits than a product that does either alone. Sometimes an item will combine all three elements of the hierarchy, such as a reusable shipping container (which prevents the waste generated by corrugated boxes) made from recycled plastic.

Purchasing for waste prevention often involves trade-offs. For example, when evaluating detergents, both packaging waste and toxicity are important considerations. What if a concentrated product, which prevents packaging waste, outperforms a nontoxic alternative? How will you choose?

One way would be to create a list of waste prevention priorities and apply it to all purchasing decisions. Or you could select a few factors and assess their relative weight on a case-by-case basis. Thus, a business committed to water quality in the surrounding community would probably choose the nontoxic detergent. The decision will flow from performance requirements as well as the business's waste prevention goals.

In some cases, a more relevant question will be:

- ☞ Could we get by with a product that uses less material? For instance, could the size or weight of a product – such as the packaging of an item shipped out by the company – be reduced and still do the job? Finding this out will require calculations of needed quantities, sizes, and weights. You will then have to determine whether less resource-intensive alternatives are compatible with current operations and equipment.

To answer these questions, solicit input from the employees who use the products and services being evaluated. Their cooperation will also be essential in developing policies and operational changes that reduce purchasing requirements.

Efficient Inventory Management

Obviously, the materials on hand must be sufficient to meet the business's needs. But you also want to keep down storage costs and the costs of disposing of waste from spoilage and obsolescence. Start by examining ordering practices:

- ☞ Focus on buying items with a long shelf life.
- ☞ Find out if unnecessarily high inventories are the result of redundant purchases by different departments.

Next, look at how products are stored and used:

- ☞ Consider using the “first-in, first-out” method to select materials from inventory. Computerized inventory control systems can help. These range from optical scanners that track the age and amounts of items in inventory to more sophisticated systems that automatically order new stock when inventory is low by tracking and correlating such factors as user requests, rates of use, and vendor data.
- ☞ Consider using a stockless inventory system, which reduces and can even eliminate the need to keep stocks on hand. Orders placed with vendors arrive quickly – sometimes within hours – and deliveries are made directly to users. However, the effects of a stockless system on waste generation can be unpredictable:
 - Because vendors often use large, standardized boxes to pack small orders, some stockless systems, such as for office supplies, can generate excessive packaging waste, as well as far more deliveries.
 - Some stockless systems generate *less* packaging waste because vendors can take advantage of reusable shipping containers for deliveries. This is especially true where delivery distances are short and vehicles make frequent round trips between buyer and seller.

A few basic management practices will also help to reduce waste:

- ☞ Inspect deliveries on arrival and label all containers with contents, date of delivery, and expiration date.
- ☞ Make sure shelving is of the proper size and that containers are kept closed, properly stacked, and raised up off the floor.
- ☞ Label containers accurately as to their hazards according to the Material Safety Data Sheets (MSDS), and store hazardous chemicals separately to prevent cross-contamination.
- ☞ Restrict traffic through storage areas and conduct routine inspections.

Efficient Use

Both misuse and inadequate maintenance create excess waste by increasing the need for repairs and replacement.

- ☞ Arrange for expert training by vendors whenever you buy new (especially high-tech) equipment.
- ☞ Implement a regular maintenance program to extend equipment life (see “Building Maintenance,” pages 46 to 49).
- ☞ Notify users of the manufacturer’s maintenance recommendations and of any arrangements for maintenance and repair made with vendors.

Consider these alternatives before ordering new items:

- ☞ Shop the surplus warehouse if your business has a salvage program. To make sure warehouse operators do not discard or donate seemingly unwanted items prematurely, monitor surplus inventory records and match them with purchase requests.
- ☞ Consider renting or leasing infrequently used equipment that requires special staffing or expensive maintenance. This will increase the vendor’s incentive to provide a durable product.
- ☞ Require vendors from whom you lease to provide products or services that prevent waste, such as automatic double-sided copying.

Efficient Disposal

Instead of discarding materials, equipment, and supplies that are no longer needed by your business, it may be possible to find new users.

- ☞ Establish procedures to recover excess inventory for use elsewhere in the business or for exchange with outside users. Notify employees of the procedure for getting rid of unwanted items when they order replacements.
- ☞ Do not assume that “obsolete” materials or products whose shelf life has expired should automatically be thrown out. Test them for effectiveness; they may still be usable in your business or somewhere else.
- ☞ Sell or donate old furniture and equipment to employees.
- ☞ Sell equipment and furniture through an auction or public sale.

What Is a Materials Exchange?

A materials exchange is a listing system for trading used products and materials among businesses; it is based on the idea that one business's discards can be another's feedstock. Commonly listed materials include durable goods such as furniture, used computers, and filing cabinets. Chemicals, rubber, plastic, paper, textiles, and building supplies such as wood, glass, and paints are also available.

Materials exchanges are waste prevention tools because they enable businesses to use existing rather than virgin materials, thereby conserving valuable resources and keeping usable products (especially hazardous ones) out of the landfill or incinerator.

Rather than actually handling goods, most materials exchanges function as information brokers, compiling and listing information about available or desired items in catalogs or a computer database. Businesses trading materials deal with each other directly by phone, e-mail, or fax.

The Recyclers Exchange offers businesses the opportunity to buy, sell, and trade materials in 23 commodity categories. It offers an on-line international database of secondary or recyclable commodities, by-products, and used or surplus items and materials. For more information, call the help line at (519) 767-2913 or visit the exchange's Web site at www.recycle.net.

The Institute for Local Self-Reliance offers *Creating Wealth from Everyday Items* (March 1997), a comprehensive guide on materials reuse containing numerous profiles of successful programs. To order, contact ILSR at (202) 232-4108 or find them on the Web at www.ilsr.org.

- ☞ Make a donation to charity.
- ☞ Sell equipment and components that cannot be reused to scrap dealers.

What Is a Surplus Materials Program?

A surplus materials program (SMP) acts as an internal exchange or clearing-house for goods and materials discarded by a business. It provides materials to user groups for free or at low cost, prevents usable materials from entering the waste stream, and sometimes generates revenues from the sale of unneeded items. Some surplus operations are even run as profit centers. Well-managed surplus operations can also help control material costs by enabling purchasing staff to shop the warehouse inventory before purchasing new items.

An effective surplus program inventories its materials; publicizes what is available; and sells, recycles, or discards items not claimed within a certain period. Running such a program requires staff to manage materials at the warehouse, pick up and deliver items, prepare documents for ownership transfer, and arrange transfers to other facilities or sales to outside buyers.

2. ATTRIBUTES OF PRODUCTS THAT PRODUCE LESS WASTE AND ARE LESS TOXIC

The choices that purchasers make reflect the specific needs of the business, and buying with waste prevention in mind is no different. There is no established methodology for identifying less wasteful products, but a few general attributes can serve as guide. (See Appendix 1 for a list of waste prevention products.)

Durability

The point of buying durable products is to establish a low replacement rate for the products you use. This will:

- ☞ Reduce the costs of replacement, disposal, and shipping.
- ☞ Improve business operations by minimizing delays caused by equipment breakdown.
- ☞ Benefit the environment by reducing the energy use and pollution associated with manufacturing and shipping replacement products.

To increase the durability of the products you buy:

- ☞ Seek out extended warranties. These are usually a reliable indication that a product is designed to last a long time; they also tend to accompany products that can be repaired.
- ☞ Take out service contracts with vendors that provide them.
- ☞ Implement a periodic maintenance program for all equipment.

Standards for Durability

Consult generally accepted national standards for quality and durability, such as those published by the American National Standards Institute (ANSI) and its member groups. ANSI has testing methods and design standards, as well as performance specification standards, for a wide variety of products: paving and roofing materials; leather, wood, and packaging materials; paper, plastics, and textiles; tires and rubber; paint, soap, and adhesives; imaging products; and food and food service equipment.² For more information, call ANSI at (212) 642-4900 or go to www.ansi.org.

Reusability/Repairability

Buying reusable products – from erasable wall calendars to rechargeable batteries to washable air conditioner filters – is an obvious way to reduce the waste created by disposable single-use items. And products that can be reused can often be repaired as well.

- ☞ Try to stick to a single brand of repairable items; this will allow interchangeable parts to be salvaged and reused.
- ☞ Consider buying extras to use for spare parts (as long as this does not create more waste overall).
- ☞ Make guaranteed availability of replacement parts a specification for items likely to be used for a long time. In Minnesota, the state's Materials Management Division requires that all bids for telecommunications equipment include a letter from the manufacturer guaranteeing parts availability for 10 years after installation. (Current federal law requires seven years' availability.)³

Upgradable Products

Equipment that can be upgraded or expanded can be a significant source of avoided purchasing and waste disposal costs. A few manufacturers offer products designed in such a way that this can be done easily and inexpensively.

- ☞ Look for computers that permit new microprocessors, memory boards, hard drives, and disk drives to be installed by the user. By allowing parts to be added or changed, modular design eliminates the need to buy a whole new machine every time the technology changes or improves significantly.

Remanufactured Products

Contrary to the popular assumption that remanufactured products are worn out relics covered over with a fresh coat of paint, many of them have actually been completely disassembled, cleaned, and overhauled, their worn parts replaced and their surfaces refinished. Often such products can be purchased for as little as half the price of a new model.

\$\$ Consider these remanufactured items:

- ☞ Recharged toner cartridges for laser printers, copiers, and fax machines
- ☞ Reformatted computer disks
- ☞ Used and rebuilt vehicle parts
- ☞ Retreaded tires
- ☞ Re-refined motor oil, antifreeze, and other vehicle lubricants
- ☞ Refurbished office furniture, computers, copiers, and other electronic equipment

Concentrated and Less Toxic Products

Concentrated products purchased in bulk keep the packaging per quantity of product to a minimum. They also greatly reduce the volume of packaging waste a business pays to dispose of. Whenever possible:

- ☞ Buy liquids (such as milk and lubricating oils) in 5- or 10-gallon containers instead of in quarts or liters.
- ☞ Buy sugar, condiments, and other small items in bulk instead of in individual packages, and dispense them into smaller containers.
- ☞ Buy cleaning chemicals in concentrated or powdered form to which the user adds water.

Use Locally Produced Materials

Select products that require minimal transportation throughout their life cycle. Food, especially, requires chemical preservatives, pesticides, and fungicides when transported over long distances, and the shipping itself generates air pollution. The best option is products made locally from locally available materials. Buying locally brings the added benefit of keeping money in the local economy. There can be trade-offs, however. For instance, if a locally produced product contains more toxic ingredients than one produced further away, this will have to be considered when assessing its waste prevention potential.

Purchasers also buy products that contain toxic chemicals – from carpets, paints, and floor cleaners to bug sprays and weed killers. Determining which products contain toxic materials can be difficult because the exact chemical content of individual brands is considered to be proprietary information; also, product formulations can change without notice. Finally, only a few of the more than 72,000 chemicals found in commercial products in the US have actually been tested for toxicity.

Given the lack of information, the best option is to choose the least toxic product available for each task.

- ☞ Find out from suppliers which of the products you buy contain toxic chemicals.
- ☞ Use products with toxic ingredients as infrequently as possible, and replace them with less toxic products if they exist (see the box on buying less toxic cleaning chemicals on page 50).
- ☞ Whenever possible, choose products that contain chemicals not regulated as hazardous waste. Managing and disposing of such waste products can be complicated and expensive.
- ☞ Ask facility managers and engineering staff to identify hazardous products used in the business, as well as any available nonhazardous substitutes.

Less Toxic Paints

Green Seal, an environmental products testing organization, suggests the following acceptable VOC concentrations for indoor and outdoor paints (weight in grams/liter of product minus water).⁴

| | Indoor | Outdoor |
|---------|---------|---------|
| Nonflat | 150 g/l | 200 g/l |
| Flat | 50 g/l | 100 g/l |

Ask your retailer, contractor, or the manufacturer for information on specific paints. Or see the “Architectural Paints” focus issue of Green Seal’s *Choose Green Report*, August/September 1998.

Packaging: None, Less, or Reusable

Just about everything is delivered in some type of packaging, much of which becomes waste that businesses pay to get rid of. While packaging is needed to protect products from damage and spoilage, some of it is unnecessary. Purchasers can help reduce this waste by working with vendors to reduce, take back, or provide reusable packaging.

- ☞ Look for sources of unpackaged products (such as compost and wood chips) when packaging is not needed for protection.

- ☞ Seek the least packaged alternative when packaging is necessary or unavoidable. Buy concentrates, buy products in bulk, and buy products that can be refilled from larger containers.

- ☞ Return packaging materials such as corrugated cardboard boxes and shipping pallets to suppliers who will accept them. Besides eliminating your business's responsibility to dispose of these materials, it gives suppliers an incentive to reduce their own use or find reusable alternatives (such as plastic pallets and shipping containers).

- ☞ Ask vendors who make frequent deliveries to replace corrugated boxes with durable, returnable shipping containers that can be picked up at the next delivery. This brings savings in replacement costs that vendors may pass on to their customers.

- ☞ Use reusable mailbags and boxes for shipments to branch offices, stores, and warehouses. Save on postage costs by using lightweight, waterproof, reusable nylon pouches for consolidated mailings.

- ☞ Find out about opportunities to reuse packaging waste before recycling or disposal. Mailing companies such as Mail Boxes, Etc. (800-789-4MBE or www.mbe.com) will often take packing materials such as polystyrene "peanuts" for reuse.

Savings from Reusable Shipping Containers

- *Xerox, working with its suppliers, initiated a program that employs reusable containers and pallets to ship parts between facilities and suppliers. Besides conserving timber, the program avoids the creation of 10,000 tons of waste and saves the company up to \$15 million annually.⁵*
- *General Motors uses more than 4 million returnable containers (boxes, pallets, etc.) every year in its Cadillac division, yielding a daily cost savings of \$90,000.⁶*

3. USERS, PURCHASERS, AND VENDORS: MAKING THE CONNECTION

Changes in purchasing must be developed in cooperation with the employees who use the products and services that purchasers buy. This ensures that new products or services are viable alternatives to the ones they replace. Since purchasers may not be sufficiently familiar with specific business operations to judge whether a new product will do the job, it's essential to ask users directly about:

- ☞ The ways in which specific products are used
- ☞ The performance requirements of most importance to them
- ☞ Products they already use that may help prevent waste
- ☞ Any opportunities for waste prevention of which they are aware

Other sources of information that can help purchasers identify less wasteful products and prepare effective product specifications include:

- ☞ Other purchasers (both inside and outside the business)
- ☞ Vendors and sales representatives
- ☞ Catalogs and trade journals
- ☞ Business or trade organizations
- ☞ Environmental organizations

Once you know what users are looking for, determine what products are available that both meet their needs and reduce waste:

- ☞ Contact your current vendors and contractors to let them know of the business's commitment to waste prevention (see the sample letter on the following page).
- ☞ Send vendors any waste prevention policy statements that might help them identify products that will meet your needs (see pages 78 to 79 for information on writing such policy statements).
- ☞ Clarify any specific requirements and define your terms; for instance, if you would like a product to be packaged in bulk, identify the container sizes you prefer.
- ☞ Consider including a voluntary survey in bid solicitations to obtain information on vendor products (see the sample survey on pages 76 to 77).

Sample Vendor Letter

Dear Valued Supplier:

In response to current environmental concerns and the need to conserve valuable natural resources, ABC Company is committed to reducing the amount of waste we generate. Our commitment will result in improved customer satisfaction, reduced operating costs, and a better quality of life for us all.

A portion of the waste we generate comes from products and packaging we obtain from you and other suppliers. We hope you will be able to help us reduce this waste wherever possible. We believe that we can both benefit by reducing waste and that the result will be lower costs for both of us. If you would like to join us in our commitment to reducing waste, we would welcome the chance to talk with you about a mutually beneficial program.

Specifically, we are looking for:

- Opportunities to purchase products that are long-lasting, reusable, repairable, have remanufactured components, and are less toxic to humans and the environment
- Opportunities to eliminate or minimize packaging by volume and weight by reducing packaging of the products we buy from you
- Opportunities to purchase products with reusable packaging, products and packaging that use significant amounts of recycled materials in their manufacture, and products and packaging that are recyclable in the majority of current recycling programs

We are analyzing the changes we can make now and in the future and are looking to establish baseline information we can build upon. Please tell us what initiatives you have taken to prevent waste and inform us of your future plans. Please answer the attached vendor survey and return it to us as soon as possible.

Thank you for your assistance in our waste prevention efforts. Please call if you have any questions.

Sincerely,

Sample Vendor Survey

Please carefully review the products we purchase from you and the packaging with which they are delivered to us. What changes might be made to reduce waste?

Products

Please identify changes that could result in products that are:

- Longer-lasting/More durable _____
- Reusable _____
- Repairable _____
- Remanufactured _____
- Refillable _____
- More concentrated _____
- Less toxic _____
- Recyclable _____
- Made with post-consumer recycled materials _____
- Other _____

How can we help?

Packaging

Please identify packaging changes that could eliminate or reduce unnecessary packaging waste by:

- Eliminating packaging entirely _____
- _____
- Using bulk packaging _____
- _____
- Using fewer layers of packaging _____
- _____
- Using lighter-weight materials _____
- _____
- Using larger boxes _____
- _____
- Using smaller boxes _____
- _____
- Using boxes more efficiently _____
- _____
- Reusing packaging materials _____
- _____
- Taking back packaging materials (e.g., containers, pallets) _____
- _____

Other _____

How can the packaging be made more recyclable? _____

How can the packaging be made with more post-consumer recycled content?

How can we help? _____

Promotional Materials

Please identify changes that could eliminate or reduce unnecessary promotional material:

Less frequent mailings _____
Smaller press packs _____
Updated mailing lists _____
Sending material electronically _____
Other _____

How can we help?

What waste prevention initiatives have you already implemented, do you plan to implement, or are you currently considering?

Is any of your promotional material available on the Internet? _____
If yes, what is your Web address? _____
Can your products be ordered on-line? _____

How much post-consumer recycled material is contained in the products and packaging we obtain from you?

Testing will confirm that an environmentally preferable product under consideration can meet user needs. Most vendors and manufacturers test their products regularly and will provide test data upon request. Purchasers can also:

- ☞ Ask vendors for the names of customers who can testify to a product's performance.
- ☞ Find out whether an environmental certification firm or product testing lab is familiar with the product and solicit appraisals.
- ☞ Find out if other departments in the company, or another company in the same business, has tested the product being considered.
- ☞ Test the product themselves. This does not have to be complicated; for instance, a box made of thinner corrugated cardboard should be able to handle the weight of the product to be shipped without breaking, and it should be stackable for the period required without the sides buckling or getting crushed.

If few current vendors offer products that prevent waste, or if they offer only a few:

- ☞ Ask them to make available more products that reduce waste or encourage manufacturers to develop such products.
- ☞ Emphasize the business's commitment to waste prevention and use the promise of increased orders as an incentive.

4. ADAPTING THE PURCHASING POLICY FOR WASTE PREVENTION

Once you have a basic understanding of how to adapt purchasing practices to promote waste prevention, prepare a purchasing policy and a set of implementation guidelines to facilitate it. Such a policy can help ensure that new procedures are practiced consistently by purchasing staff and that your aims are clear to vendors and contractors. The Alameda County (California) Source Reduction and Recycling Board's publication *Resourceful Purchasing* recommends that a purchasing policy for waste prevention (see Appendix 2 for a model policy) include the following elements:⁷

- ☞ **The statement of purpose.** This explains and justifies the policy in terms specific to the business. For instance, the statement of purpose might say that the company "desires to maximize reduction of discarded materials, [and] encourages economic development through attracting and retaining recycled and source reduction product manufacturers and distributors."⁸

- ☞ **The statement of policy.** This is the core of the policy, providing a clear statement of its objectives. In it the business may pledge to:
 - Buy products that prevent waste.
 - Ensure that all equipment is compatible with those products.
 - Promote waste prevention.

- ☞ **The precedence provision.** This clarifies how purchasers will choose products when conflicts arise (for instance, if a less toxic product comes with excessive packaging). It also clarifies the purchaser's options when favored vendors (such as local businesses, minority- or women-owned businesses, or some other supplier category) do not offer products that prevent waste. When there are conflicts between policies, add new clauses or adjust old ones so that buyers can make decisions.

- ☞ **The reasonable price provision.** This directs buyers to purchase products that prevent waste when they are available "at a reasonable price." This wording is preferable to alternatives such as "when prices are equal" or "lowest cost" because it allows for more flexibility as market conditions and other circumstances change.

- ☞ **The application provision.** This identifies the parts of the business and the outside contractors (maintenance services, landscapers, and print shops, among many others) that are subject to the waste prevention policy. These vendors will be subject to the policy in the products or services they provide to you, as well as in their own procurement of materials associated with those products or services.

Implementation guidelines describe how the waste prevention policy is to be carried out. They should address each of the above policy provisions in turn, specifying the exact responsibilities of those charged with implementation. See Appendix 3 for model implementation guidelines.

5. ADAPTING PURCHASING DOCUMENTS FOR WASTE PREVENTION

Work with users and the business's legal counsel to develop language for specifications and contracts, and incorporate it into new contracts and other agreements. Always inform vendors about any new requirements as soon as possible.

Specifications

Start by reviewing your standard specifications to be sure they encourage, and do not preclude, the purchase of less wasteful products. Eliminate the following common barriers whenever possible:

- ☞ Clauses that require “all-new” products limit waste prevention opportunities because they generally preclude the purchase of products like remanufactured furniture or equipment that has pre-owned components or materials.
- ☞ “All-or-none” requirements can eliminate potential bidders that are unable to supply all the products you seek. This is especially true for waste prevention-related product vendors, which may be smaller companies that offer a limited range of products or even a single product (such as reusable mail bags). Encourage vendors to offer some of the products you need even when they can't supply all of them.
- ☞ Excessively stringent aesthetic requirements can mean automatic rejection for products that may not look perfect but perform well.

Other ways to revise current specifications include the following:

- ☞ Remove specifications that are needlessly stringent. For example, why require a minimum basis weight for company stationery when a lighter paper would serve just as well?
- ☞ Include waste prevention alternatives in the list of “brand name or equal” specifications you provide. Otherwise, vendors may offer only non-waste prevention brands, or assume that waste prevention products will not qualify as “equal.” Avoid this by identifying your waste prevention requirements.⁹

When developing new specifications, consider the following:

- ☞ The range of vendor capabilities. Some vendors of waste prevention products, especially smaller ones, may not be able to meet the response and delivery times you normally require, or they may not bid on all-or-none projects. Try to make specifications more flexible. For example, allowing for longer delivery times could give smaller vendors that offer less wasteful products a chance to compete.

- ☞ The simpler the specifications, the less likely that they will limit a vendor's ability to generate innovative designs and processes. If you are unsure about what you need, describe the results you require rather than the design parameters. For example, request a piece of equipment with remanufactured components rather than specifying the components themselves.

For specifications that address durability or packaging:

- ☞ Explore the possibility of including extended warranties or guaranteed buybacks in your specifications. A vendor's readiness to offer a warranty at a competitive price is an indication of product durability.
- ☞ Think about requiring vendors to take back packaging or use reusable shipping containers for deliveries. This makes it clear that reducing packaging waste is really a factor in gaining or keeping your business.
- ☞ If take-back is not a possibility, specify packaging that you can reuse, such as pallets of the size used in your facilities.

If adding waste prevention product or packaging specifications is not possible right away, consider using advance specifications to inform suppliers of the types of products you'll be buying in the coming years. These will also be useful to producers and distributors planning for product design and manufacturing changes over time.

Purchasing Contracts

Purchasing contracts can also contain obstacles to waste prevention purchasing.

- ☞ As in the specifications, the contract clauses with the most potential to hinder waste prevention are "all-new" and "all-or-none" requirement clauses.
- ☞ Check all clauses for other language that could interfere with the waste prevention policy.
- ☞ Keeping waste prevention in mind, review any stipulated terms or conditions or any special instructions to vendors.

Purchasing documents do not have to be changed every time you solicit bids. Once revised, subsequent alterations will be needed only if purchasing policies change.

Monitoring and Reporting

To get an idea of your progress in waste prevention purchasing and its effects on costs, obtain the needed data from your own purchasing records or ask vendors and contractors for the quantities and prices of the goods they supply. For vendor reporting, plan ahead by including detailed reporting requirements when obtaining bids and in subsequent agreements. For example:

- ☞ Require that data be provided for the entire company or for specific departments.
- ☞ Require that purchases be listed by product category (e.g., remanufactured equipment or less toxic paints) or by individual item.¹⁰
- ☞ Design a reporting format for each contract, or require that vendors submit data on diskette in a format consistent with your company's computer systems. This will make it easier to combine information from various vendors.

Practicing Waste Prevention Within the Purchasing Department

All the waste prevention strategies discussed in this chapter are relevant to the purchasing department itself, but paper waste is especially important. Work with vendors and your own staff to reduce paper use:

- Require contractors to use both sides of the paper in their correspondence with you. This will save them money and postage and save you filing space.
- Make sure your own documents are printed two-sided.
- Ask vendors to cut down on purchase orders — and the associated costs of printing, storage, and disposal — by using a computerized system. (Consider hardware and software costs and the training involved in learning to operate a new system.)
- Find out whether eliminating paper copies is feasible in the accounting department, the legal department, and other paper-intensive areas.
- Find out whether every employee who receives vendor catalogs needs them, and ask vendors to send fewer copies.
- Work with vendors to develop electronic versions of catalogs for on-line use.

NOTES

INTRODUCTION

- ¹ President's Council on Sustainable Development, *Population and Consumption Task Force Report* (1996), www2.whitehouse.gov/PCSD/Publications/TF_Reports/pop-exec.html.
- ² John C. Ryan and Alan Thein Durning, *Stuff: The Secret Lives of Everyday Things*, Northwest Environment Watch, Seattle, WA, 1997, p. 4.
- ³ US Environmental Protection Agency, Office of Solid Waste, *Characterization of Municipal Solid Waste in the United States: 1997 Update, Executive Summary*, EPA530-R-98-007, Washington, DC, May 1998, p. 1.
- ⁴ Steven Lang, "US Solid Waste Market Will Grow to \$41.5 Billion by 1999, Says FIND/SVP," *Integrated Waste Management*, February 1, 1995, p. 1.
- ⁵ US Environmental Protection Agency, Office of Solid Waste, *Characterization of Municipal Solid Waste in the United States: 1996 Update*, EPA530-R-97-015 007, Washington, DC, May 1997, p. 145.
- ⁶ Charles O. Holliday, Jr., "A Year of Great Change, Challenge, and Promise" (1999), www.dupont.com/corp/environment/comment.html.

PART I

1. OFFICE AREAS

- ¹ California Integrated Waste Management Board, "Creating a Paper Reduction Campaign," Pub. No. 500-94-034, Sacramento, CA, August 1994, p. 1.
- ² Bruce Nordman, "Useful Facts for Your Paper Efficient Office," fact sheet, Lawrence Berkeley Laboratory, Energy Analysis Program, Berkeley, CA, November 16, 1994, pp. 1-2.
- ³ Cornell Cooperative Extension of Broome County, "Waste Prevention Success Stories," Dickinson, NY, 1995, p. 2.
- ⁴ Chaz Miller, "Recycling the Net: The Paperless Office?" *Recycling Times*, May 26, 1997, p. 15.
- ⁵ Athena Sarafides, *How to Reduce Waste and Save Money: Case Studies from the Private Sector*, updated, New Jersey Dept. of Environmental Protection, Division of Solid and Hazardous Waste, Trenton, NJ, April 1996, p. 9.
- ⁶ US Environmental Protection Agency, "WasteWise Update," EPA 530-N-95-006, Washington, DC, September 1995, p. 6.

- ⁷ Jennifer Snyder, Mattel Inc., presentation at “Seeing Green: A Workshop in Business Waste Prevention,” Chicago, IL, December 14, 1993.
- ⁸ Council on the Environment of New York City, “The *Village Voice* Waste Prevention Study” (unpublished), New York, June 1995, p. 20.
- ⁹ “Fax Facts,” *Home Office Computing*, December 1996, p. 26.
- ¹⁰ Legacy Health System and Harding Lawson Associates, “Legacy Health System: A Model Waste Prevention Program,” Portland, OR, May 1994, p. 10.
- ¹¹ New York City Dept. of Sanitation, *Cutting Costs and Preventing Waste in NYC Office Buildings and Institutions: Three Case Studies*, New York, 1995, p. 13.
- ¹² *Ibid.*
- ¹³ *Ibid.*
- ¹⁴ Deb Svoboda, “Waste Prevention Can Slash Costs,” *Perspectives*, June 1996, p. 16.
- ¹⁵ *Ibid.*
- ¹⁶ American Hotel and Motel Association, “Recycling and Source Reduction for the Lodging Industry,” Waldorf, MD, 1993, p. 36.
- ¹⁷ John P. Winter and Sharene L. Azimi, *Less Garbage Overnight: A Waste Prevention Guide for the Lodging Industry*, INFORM, Inc., New York, 1996, p. 26.
- ¹⁸ US Environmental Protection Agency, “WasteWise Second-Year Progress Report,” EPA 530-R-96-016, Washington, DC, September 1996, p. 9.
- ¹⁹ US Environmental Protection Agency, “WasteWise Update,” p. 3.
- ²⁰ Council on the Environment of New York City, “BT Summit Waste Prevention Study” (unpublished), New York, July 1995, p. 28.
- ²¹ Direct Marketing Association, “DMA Corporate Environmental Stewardship Challenge,” New York, November 1994, p. 10.
- ²² *Ibid.*, p. 6.
- ²³ US Environmental Protection Agency, “WasteWise Update,” p. 8.
- ²⁴ Robert Graff and Bette Fishbein, *Reducing Office Paper Waste*, INFORM, Inc., New York, 1991, p. 21.
- ²⁵ Telephone interview with Tom Kelly, First National Bank of Chicago, Chicago, IL, February 8, 1996.
- ²⁶ New York City Dept. of Sanitation, *Cutting Costs and Preventing Waste*, p. 10.
- ²⁷ Ken Brown, *Source Reduction Now*, Minnesota Office of Environmental Assistance, St. Paul, MN, 1993, p. 80.
- ²⁸ Telephone interview with Kim Hohisel, Senior Recycling Coordinator, Dow Corning Corp., Midland, MI, February 23, 1996.

- ²⁹ AT&T Corp., "AT&T Environmental and Safety Report," Basking Ridge, NJ, 1994, p. 8.
- ³⁰ US Environmental Protection Agency, "WasteWise Update," p. 6.
- ³¹ US Environmental Protection Agency, "WasteWise First-Year Progress Report," EPA 530-R-95-044, Washington, DC, September 1995, p. 5.
- ³² US Environmental Protection Agency, "WasteWise Second-Year Progress Report," p. 10.
- ³³ Kathleen Gray, *Office Green Buying Guide*, Green Seal, Inc., Washington, DC, April 1995, pp. 3-23.
- ³⁴ New York City Dept. of Sanitation, *Cutting Costs and Preventing Waste*, p. 6.
- ³⁵ Gray, *Office Green Buying Guide*, pp. 3-37.
- ³⁶ Sarafides, *How to Reduce Waste and Save Money*, p. 14.
- ³⁷ David Riggle, "What Happens When Computers Die?" *In Business*, May/June 1993, p. 36.
- ³⁸ Blanche Banasiak, "Demanufacturing Produces Enviro, Economic Benefits," *Waste Dynamics of the Northeast*, October 1995, p. 31.
- ³⁹ David and Nikki Goldbeck, *Choose to Reuse*, Ceres Press, Woodstock, NY, 1995, p. xviii.
- ⁴⁰ Jack Zavada, "It's Not Waste If It's a Donation," *Waste Age*, July 1989, p. 165.
- ⁴¹ Telephone interview with Dave Meers, Corporate Furniture Buyer, DuPont Corp., Wilmington, DE, December 6, 1995.
- ⁴² Sarafides, *How to Reduce Waste and Save Money*, p. 14.
- ⁴³ Letter from Jim Melville, Corporate Asset Management, DuPont Corp., Wilmington, DE, to INFORM, Inc., December 1, 1995.
- ⁴⁴ US Environmental Protection Agency, "WasteWise Second-Year Progress Report," p. 10.
- ⁴⁵ Gray, *Office Green Buying Guide*, pp. 3-7.
- ⁴⁶ Susan Kinsella, "Source Reduction: Using Your Buying Power," *Resource Recycling*, August 1996, p. 54.
- ⁴⁷ Cornell Cooperative Extension of Broome County, "Waste Prevention Success Stories," p. 1.
- ⁴⁸ US Environmental Protection Agency, *Waste Prevention Pays Off: Companies Cut Waste in the Workplace*, Washington, DC, November 1993, p. 11.
- ⁴⁹ Communication from George C. Thomas, Kodak Park HSE Services, Eastman Kodak Co., Rochester, NY, to INFORM, Inc., November 1997.
- ⁵⁰ Alan S. Orloff, ed., "Ten Free Hours = One Free Diskette," *Waste Reduction Tips*, Environmental Newsletters, Inc., Herndon, VA, September/October 1996, p. 4.

2. SHIPPING AND RECEIVING

- ⁵¹ US Environmental Protection Agency, *Characterization of Municipal Solid Waste in the United States: 1997 Update*, EPA-530-R-98-007, Washington, DC, May 1998, p. 67.
- ⁵² US Environmental Protection Agency, "WasteWise Second-Year Progress Report," p. 6.
- ⁵³ US Environmental Protection Agency, *Waste Prevention Pays Off*, p. 5.
- ⁵⁴ Solid Waste Research Group, School of Natural Resources, University of Michigan, "Waste Reduction in the Furniture Manufacturing Sector, Case Study Report: Steelcase, Inc." Ann Arbor, MI, April 1991, p. 7.
- ⁵⁵ David Saphire, *Delivering the Goods: Benefits of Reusable Shipping Containers*, INFORM, Inc., New York, 1994, p. 5.
- ⁵⁶ US Environmental Protection Agency, "WasteWise Update," p. 12.
- ⁵⁷ Telephone interview with Kim Hohisel, Dow Corning Corp., February 23, 1996.
- ⁵⁸ US Environmental Protection Agency, "WasteWise Update," p. 7.
- ⁵⁹ US Environmental Protection Agency, "WasteWise Second-Year Progress Report," p. 5.
- ⁶⁰ US Environmental Protection Agency, "WasteWise Update," p. 4.
- ⁶¹ *Ibid.*, p. 6.
- ⁶² Response to INFORM questionnaire by Alida Stevens, President, and Michelle Reutzler, Public Relations Manager, Smith & Vandiver, Inc., Watsonville, CA, February 19, 1996.
- ⁶³ US Environmental Protection Agency, "WasteWise Update," p. 4.
- ⁶⁴ New York City Dept. of Sanitation, *It Makes Business Cents to Prevent Waste: A Business Guide to Waste Prevention*, New York, April 1994, p. 2.
- ⁶⁵ David Saphire, *Making Less Garbage On Campus: A Hands-On Guide*, INFORM, Inc., New York, 1995, p. 36.
- ⁶⁶ Big City Forest Products information sheet, New York, NY, 1996.
- ⁶⁷ Joel Makower, ed., "Report Helps Make Packaging Choices Pallet-able," *The Green Business Letter*, March 1997, p. 3.
- ⁶⁸ US Environmental Protection Agency, "WasteWise Update," p. 10, and telephone interview with George C. Thomas, Kodak Park HSE Services, January 11, 1996.
- ⁶⁹ US Environmental Protection Agency, "WasteWise First-Year Progress Report," p. 14.
- ⁷⁰ US Environmental Protection Agency, "WasteWise Update," p. 12.
- ⁷¹ Alan S. Orloff, ed., *Waste Reduction Tips*, Environmental Newsletters, Inc., Herndon, VA, May/June 1995, p. 7.
- ⁷² Telephone interview with Kim Hohisel, Dow Corning Corp., February 23, 1996.
- ⁷³ "The Peanut Pipeline," *Reusables News*, US Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, DC, August/September 1996, p. 3.

3. FOOD SERVICES

- ⁷⁴ “Waste Management Leads to Waste Reduction in the Restaurant Industry,” MnTAP SOURCE, Spring 1992, p. 1.
- ⁷⁵ David Saphire, *Getting an “A” at Lunch: Smart Strategies to Reduce Waste in Campus Dining*, INFORM, Inc., New York, 1998, p. 11.
- ⁷⁶ Winter and Azimi, *Less Garbage Overnight*, p. 20.
- ⁷⁷ Saphire, *Getting an “A” at Lunch*, p. 11.
- ⁷⁸ *Ibid.*
- ⁷⁹ *Ibid.*, p. 12.
- ⁸⁰ Winter and Azimi, *Less Garbage Overnight*, p. 21.
- ⁸¹ US Dept. of Agriculture, “Food Recovery and Gleaning Initiative,” fact sheet (available on the Internet at www.usda.gov/fcs/ogapi/foodre-1.htm), pp. 2-3.
- ⁸² Saphire, *Getting an “A” at Lunch*, p. 14.
- ⁸³ Winter and Azimi, *Less Garbage Overnight*, p. 20.
- ⁸⁴ New York City Dept. of Sanitation, *Cutting Costs and Preventing Waste*, p. 8.
- ⁸⁵ Council on the Environment of New York City, *CENYC Waste Prevention Project, July 1994-July 1995, with Update of Program Progress* (unpublished), New York, January 1996, p. 5.
- ⁸⁶ Council on the Environment of New York City, “HBO Waste Prevention Study” (unpublished), New York, June 1994, p. 32.
- ⁸⁷ Response to INFORM questionnaire by Ron Hutchinson, Corporate Safety and Environmental Manager, Bell Communications Research, Inc., Piscataway, NJ, January 23, 1996.
- ⁸⁸ New York City Dept. of Sanitation, *Cutting Costs and Preventing Waste*, p. 9.
- ⁸⁹ Brown, *Source Reduction Now*, p. 59.
- ⁹⁰ Winter and Azimi, *Less Garbage Overnight*, p. 22.
- ⁹¹ Saphire, *Making Less Garbage on Campus*, p. 32.
- ⁹² Saphire, *Getting an “A” at Lunch*, p. 20.
- ⁹³ Brown, *Source Reduction Now*, p. 61.
- ⁹⁴ Saphire, *Getting an “A” at Lunch*, p. 21.
- ⁹⁵ Winter and Azimi, *Less Garbage Overnight*, p. 21.

4. FACILITIES

- ⁹⁶ Goldbeck, *Choose to Reuse*, p. 420.
- ⁹⁷ Brown, *Source Reduction Now*, p. 76.
- ⁹⁸ Bette Fishbein, "Case Study: Industry Program to Collect and Recycle Nickel-Cadmium (Ni-Cd) Batteries," INFORM, Inc., New York, 1997, pp. 2-5.
- ⁹⁹ *Ibid.*, pp. 6, 9-13.
- ¹⁰⁰ *Stepping Lightly on the Earth: Everyone's Guide to Toxics in the Home*, Greenpeace, Washington, DC, 1988, p. 5.
- ¹⁰¹ Winter and Azimi, *Less Garbage Overnight*, p. 53.
- ¹⁰² *Choose Green Report*, Green Seal, Inc., Washington, DC, 1996, p. 1.
- ¹⁰³ Gray, *Office Green Buying Guide*, pp. 3 - 27.
- ¹⁰⁴ Council on the Environment of New York City, "Columbia University Waste Prevention Study"(unpublished), New York, 1995, p. 26.
- ¹⁰⁵ Brown, *Source Reduction Now*, p. 79.
- ¹⁰⁶ Jean Bonhotal, Cornell Waste Management Institute; Sherri Conway, Recourse Systems for the Environment; and Lynn Leopold, Tompkins County Solid Waste Management Division, *Waste Prevention Tools at Work*, Cornell Waste Management Institute, Ithaca, NY, May 1994, p. 12.
- ¹⁰⁷ Brown, *Source Reduction Now*, p. 85.
- ¹⁰⁸ Nancy Vandenberg, Susan Kinsella, and Carla S. Lallatin, *Resourceful Purchasing: A Hands-On Buyers Manual with How-To-Do-It Guidance for Source Reduction and Recycled Products*, Alameda County [CA] Source Reduction and Recycling Board, April 1996, pp. 206-207.
- ¹⁰⁹ California Integrated Waste Management Board, "Grasscycling," Pub. No. 500-94-2962, Sacramento, CA, 1994, p. 1.
- ¹¹⁰ California Integrated Waste Management Board, "Waste Reduction Opportunities in the Landscape Industry," fact sheet, Sacramento, CA, 1994, p. 2.
- ¹¹¹ Bette K. Fishbein, *Building for the Future: Strategies to Reduce Construction and Demolition Waste in Municipal Projects*, INFORM, Inc., New York, 1998, p. 42.
- ¹¹² *Ibid.*, p. 43.
- ¹¹³ *Ibid.*, pp. 35, 46.
- ¹¹⁴ Edwin G. Falkman, *Sustainable Production and Consumption: A Business Perspective*, World Business Council for Sustainable Development, Geneva, Switzerland, April 1996, p. 17.
- ¹¹⁵ "New Life for Old Carpets," *Environmental Building News*, June 1997 (article summary at www.ebuild.com/Archives/Features/FeatureList/html).

¹¹⁶ Pamela Winthrop Lauer, *et al.*, *Construction Materials Recycling Guidebook*, Innovative Waste Management, Inc., Minneapolis, MN, March 1993, p. 8.

¹¹⁷ *Ibid.*, p. 5.

¹¹⁸ US Environmental Protection Agency, "WasteWise Second-Year Progress Report," p. 4.

¹¹⁹ US Environmental Protection Agency, "WasteWise First-Year Progress Report," p. 17.

¹²⁰ Marilyn Zelinsky, "Preventive Measures," *Interiors*, August 1994, p. 44.

PART II

- ¹ The authors would like to acknowledge the particular contributions of the following source cited throughout Part II: Nancy VandenBerg, Markets for Recycled Products; Susan Kinsella, Susan Kinsella & Associates; and Carla S. Lallatin, Lallatin & Associates, *Resourceful Purchasing: A Hands-On Buyers Manual with How-To-Do-It Guidance for Source Reduction and Recycled Products*, Alameda County [CA] Source Reduction and Recycling Board, April 1996. The entire manual is downloadable from www.stopwaste.org/reports.html.
- ² ANSI Online, American National Standards Institute Web site, www.ansi.org/home.html.
- ³ "Environmentally Aware Purchasing Checklist," Materials Management Division, State of Minnesota Department of Administration, Minneapolis, November 1991, p. 5.
- ⁴ Kathleen Gray, *Office Green Buying Guide*, Green Seal, Inc., Washington, DC, April 1995, pp. 3-33.
- ⁵ Edwin G. Falkman, *Sustainable Production and Consumption: A Business Perspective*, World Business Council for Sustainable Development, Geneva, Switzerland, April 1996, p. 17.
- ⁶ Alan S. Orloff, ed., *Waste Reduction Tips*, Environmental Newsletters, Herndon, VA, Inc., May/June 1995, p. 7.
- ⁷ VandenBerg, Kinsella, and Lallatin, *Resourceful Purchasing*, pp. 8-13.
- ⁸ *Ibid.*, p. 17.
- ⁹ *Ibid.*, p. 81.
- ¹⁰ *Ibid.*, p. 98.

APPENDIX 1

WASTE PREVENTION PRODUCTS

Vendors offer a wide variety of products that help prevent or reduce waste. In seeking them out, start with familiar items – such as plain-paper fax machines or remanufactured toner cartridges – that don't look or perform too differently from the ones users are accustomed to already. Also, look for products that are likely to save you money. Then, as your new purchasing policy begins to gain support, expand the number of waste prevention-related products that you buy. Below is a list of products whose function or composition promotes waste prevention.

OFFICE AREAS

Hardware and Software

- \$\$ E-mail, voice mail, intranet, and Internet systems
- \$\$ Photocopiers and printers with duplexing capability
 - Software that permits on-line generation of letterhead and business forms
 - CD-ROMs, optical disks, and microfiche for storing technical manuals, company records, and other materials
- Plain-paper fax machines
- Fax modems
- Remanufactured photocopiers
- Computers and other equipment with modular features
- Computers and other equipment with extended warranties
- Remanufactured computer disks

Furniture and Supplies

- \$\$ Refurbished or remanufactured furniture
 - Remanufactured toner cartridges for laser printers, copiers, and fax machines
 - Paper with recycled and “tree-free” content
 - Chlorine-free unbleached paper
 - Lower basis-weight paper
 - Refillable inkjet cartridges
 - Re-inked printer ribbons
 - File folders with recycled content
 - Rechargeable batteries
 - Solar-powered calculators
 - Sturdy staplers, scissors, file holders, book-ends
- Narrow-ruled notebooks and notepads
- Wax adhesive (instead of rubber cement)
- Less toxic glues, pastes, glue sticks
- Nontoxic correction fluid
- Colored pencils, crayons, or colored wax (instead of solvent-based markers)
- Perpetual calendars
- Refillable pens
- Water- and vegetable-based printing inks
- Erasable boards (for posters and signs)
- Reusable interoffice routing envelopes
- Reusable mailbags and boxes

SHIPPING AND RECEIVING

- \$\$ Reusable shipping containers
- \$\$ Reusable slipsheets made from recycled material (instead of wood pallets)
- \$\$ Durable, reusable corrugated or plastic shipping pallets made from postconsumer recycled materials
 - Packaging made with postconsumer recycled materials
 - Reusable plastic crates (instead of corrugated cardboard boxes)
 - Reusable metal or plastic drums
 - Cornstarch-based packing fill
 - Paper shredder for making packing material from wastepaper

FOOD SERVICES

Food & food-related items

- \$\$ Washable serviceware
 - Local and organically grown foods
 - Precooked/pre-cut/already prepared foods
 - Smaller plates to reduce “plate” waste
 - Smaller containers on steam trays, salad bars, and buffets to reduce waste from spoilage
 - Staples (flour, rice, pasta, sugar, coffee) purchased in bulk
 - Milk purchased in bulk
 - Juice, iced tea, and hot chocolate purchased in bulk or concentrate form
 - Carbonated drinks dispensed from refillable cylinders
 - Washable tablecloths, napkins, placemats, towels
 - Washable cafeteria trays
 - Napkin dispensers
 - Unbleached paper napkins with recycled content
 - Smaller, thinner paper napkins
 - Refillable condiment dispensers
 - Bulk straw dispensers
 - Reusable or unbleached coffee filters
 - Food grinder or pulper system

Kitchen maintenance supplies

- Energy-efficient dishwashing equipment
- Dry, concentrated dishwasher detergent stored in dispensers
- Airtight, reusable food storage containers (instead of plastic wrap)
- Spun-glass scouring pads (instead of steel wool)
- Washable rags (instead of disposable wipes)
- Hot-air dryers or cloth-roll towels (instead of paper towels)
- Unbleached paper towels with recycled content
- Large-roll paper towels
- Smaller or lighter-weight paper towels
- Nontoxic or less toxic cleaning fluids
- Cleaning supplies with concentrated refills
- CFC-free refrigerators, freezers, and coolers

BUILDING MAINTENANCE

- Washable air conditioner filters
- Reusable metal frames with disposable (air conditioner) filter inserts
- Rechargeable batteries
- Equipment powered by photovoltaics or fuel cells
- Water-based (instead of solvent-based) paints
- “Recycled” paints

JANITORIAL SERVICES

Cleaning supplies

- Less toxic cleaning products purchased in bulk or concentrate form
- Refillable pump-spray bottles (instead of aerosol cans)
- Washable rags (instead of disposable wipes)
- Reusable towels, mop heads, scrubbing pads
- Sponges purchased in bulk
- Cloth towels (instead of paper towels)
- Spun-glass scouring pads (instead of steel wool)
- Reusable vacuum cleaner bags

Rest room supplies

- Hot-air dryers or cloth-roll towels (instead of paper towels)
- Unbleached paper towels and toilet paper with recycled content
- Large-roll paper towels and toilet paper
- Smaller or lighter-weight paper towels
- Liquid soap in wall dispensers (instead of individually packaged bars or “soft soap” in pump bottles)

VEHICLE MAINTENANCE

- \$\$ Used or remanufactured vehicle parts such as starters and alternators
- High-mileage tires
- Retreaded tires
- Re-refined motor oil and other vehicle lubricants
- Vehicle lubricants made from vegetable oil
- Propylene glycol antifreeze (instead of ethylene glycol)
- Recycled antifreeze
- Antifreeze re-refining machine for large fleets

LANDSCAPE MAINTENANCE

- Perennial ground covers, shrubs, and bushes (instead of grass)
- Varieties of grass that require less mowing and watering
- Trees, shrubs, and other plants that require less pruning
- Perennial plants (instead of annuals)
- Drought-tolerant plants
- Mulching mower
- Organic pest control methods and integrated pest management (IPM)

REMODELING AND RENOVATION

- Building materials made with recycled content
- Used/salvaged materials
- Modular wall systems
- Refurbished modular wall systems
- Solid wood shelving (instead of particle board)
- Fiberboard made with post-consumer recycled material
- Linoleum (instead of vinyl flooring)
- Refurbished carpeting
- Carpet made with recycled material, vegetable or solution dyes, and low-VOC adhesives
- Carpet tacks (instead of floor-covering adhesive)
- Energy-efficient lighting systems (such as up-down pendant light fixtures)
- Standard-size construction materials
- Durable materials and components
- Water-based, low-VOC paints and coatings without toxic pigments

APPENDIX 2

MODEL PROCUREMENT POLICY FOR RECYCLED AND WASTE PREVENTION PRODUCTS

STATEMENT OF PURPOSE [Optional]

[ABC Co.] supports the preservation of natural resources and reduction of energy use and pollution through the development of a less wasteful materials use system

[ABC Co.] recognizes the need to strengthen markets for materials collected in local recycling collection systems;

[ABC Co.] desires to maximize reduction of discarded materials;

[ABC Co.] encourages economic development through attracting and retaining recycled and waste prevention product manufacturers and distributors.

1.0 STATEMENT OF POLICY

- 1.1 It is the policy of [ABC Co.] to purchase waste prevention products and/or recycled products containing the highest amount of postconsumer material practicable or, when postconsumer material is impracticable for a specific type of product, containing substantial amounts of recovered material. Such products must meet reasonable performance standards, be available at a reasonable price and be available within a reasonable time.
- 1.2 All equipment bought, leased or rented shall be compatible with the use of waste prevention and recycled products.
- 1.3 [ABC Co.] shall promote its use of waste prevention and recycled products whenever feasible.

2.0 DEFINITIONS

- 2.1 “Buyer” means anyone authorized to purchase on behalf of [ABC Co.].
- 2.2 “Contractor” means any person, group of persons, business, consultant, designing architect, association, partnership, corporation, supplier, vendor or other entity that has a contract with [ABC Co.] or serves in a subcontracting capacity with an entity having a contract with [ABC Co.] for the provision of goods or services.
- 2.3 “Ownership Cost” means total ownership costs during a product’s life cycle, including, but not limited to, acquisition, extended warranties, operation, supplies, maintenance, disposal costs and expected lifetime compared to other alternatives.

- 2.4 “Postconsumer Material” means a finished material which would normally be disposed of as a solid waste, having completed its life cycle as a consumer item, and does not include manufacturing or converting wastes.
- 2.5 “Preconsumer Material” means material or by-products generated after manufacture of a product is completed but before the product reaches the end-use consumer. Preconsumer material does not include mill and manufacturing trim, scrap, or broke which is generated at a manufacturing site and commonly reused on-site in the same or another manufacturing process.
- 2.6 “Price Preference” means the percentage allowance for a recycled product that costs more than a comparable virgin product. In bid situations, it is the percentage above the lowest cost of a comparable virgin product allowed for a recycled product when both bidders are responsible and responsive.
- 2.7 “Purchasing Documents” means all documents used to solicit bids and purchase products, including but not limited to: invitations for bids, requests for proposals, requests for quotations, and purchase orders.
- 2.8 “Recovered Material” means fragments of products or finished products of a manufacturing process, which has converted a resource into a commodity of real economic value, and includes preconsumer and postconsumer material, but does not include excess resources of the manufacturing process.
- 2.9 “Recycled Content” means the percentage of recovered material, including preconsumer and postconsumer materials, in a product.
- 2.10 “Recycled Content Standards” means the minimum or maximum level of recovered material and/or postconsumer material necessary for products to qualify as “recycled products,” as established by [jurisdiction].
- 2.11 “Recycled Product” means a product that meets [ABC Co.’s] recycled content policy objectives for postconsumer, preconsumer and recovered material.
- 2.12 “Remanufactured Product” means any product diverted from the supply of discarded materials by refurbishing and marketing said product without substantial change to its original form.
- 2.13 “Reused Product” means any product designed to be used many times for the same or other purposes without additional processing except for specific requirements such as cleaning, painting or minor repairs.
- 2.14 “Waste Prevention Product” means a product that results in a net reduction in the generation of waste compared to the previous or alternate version and includes durable, reusable and remanufactured products; products with no, or reduced, toxic constituents; and products marketed with no, or reduced, packaging.

3.0 POLICY IMPLEMENTATION

- 3.1 The [Director of Purchasing or authorized representative] shall, in cooperation with [Waste Prevention Program Manager] and any other relevant departments, develop administrative guidelines to implement this policy.

- 3.2 The [Director of Purchasing or authorized representative] shall ensure that purchasing documents, specifications, and contracting procedures do not discriminate against waste prevention or recycled products.
- 3.3 The [Director of Purchasing] shall establish recycled content standards and is authorized to raise or lower them to meet the objectives of this policy. The decision to change any recycled content standard shall be substantiated in the annual report.
- 3.4 The [Director of Purchasing] is authorized to exempt product categories from this policy in cases when all products contain recycled content [such as metals], or when health or safety may be jeopardized [such as pharmaceuticals] or when multiple complex components or the nature of the product make certification of recycled content impracticable [such as automobiles, computers, and software]. The [Director of Purchasing] shall maintain a list of products exempted from this policy.
- 3.5 The [purchasing entity] is authorized to participate in, and encourage other businesses to participate in, cooperative purchasing agreements.

4.0 PRECEDENCE

4.1 When conflicts occur in product selections, the following hierarchy shall be used:

- Reduction in quantity, volume, weight or toxicity;
- Reusability;
- Recycled content.

Buyers shall maximize this hierarchy whenever possible. Products shall also be evaluated for recyclability.

4.2 All [ABC Co.] departments and offices may evaluate environmental benefits and ownership cost when evaluating prices to determine the lowest responsible bid.

5.0 REASONABLE PRICE

[For businesses authorizing buyers to specify only recycled and waste prevention products in appropriate cases]:

5.1a Buyers shall buy recycled and waste prevention products whenever possible.

[Or, for businesses implementing a price preference for recycled and waste prevention products]:

5.1b This policy establishes a price preference of up to [x percent] for products that contain at least the minimum of recycled content specified.

[Optional but recommended flexibility for businesses implementing a price preference policy]:

5.2 The [Director of Purchasing] is authorized to purchase recycled and waste prevention products when the price differential is higher than the price preference allows when the [Director of Purchasing] determines in writing that the additional cost is reasonable and in the best interests of [ABC Co.].

- 5.3 The [Director of Purchasing] is authorized to raise or lower the price preference up to [x percent] for recycled and waste prevention product categories in response to market conditions. The decision to change the price preference shall be substantiated for each product category.

[For businesses giving no authorization for recycled and waste prevention purchasing or for a price preference, but willing to spend slightly more for recycled and waste prevention products in specified circumstances]:

- 5.1c On a case-by-case basis, the [Director of Purchasing] is authorized to purchase recycled or waste prevention products at more than the lowest cost when the following conditions are met:
- a. The price differential is no greater than [x percent or x dollars] over nonrecycled or non-waste prevention products,
 - b. The bidder is responsive and responsible,
 - c. The [Director of Purchasing] determines in writing that the additional cost is in the best interests of [ABC Co.], and
 - d. No substantial budget impact would result.

6.0 APPLICATION

- 6.1 All [ABC Co.] departments, offices, vendors and contractors shall comply with this policy.

7.0 REPORTS

- 7.1 The [Director of Purchasing or authorized representative] shall report to [ABC Co.] management annually, for both recycled and waste prevention purchases, annual dollar expenditures, percentage change from previous years, percentage of total purchasing budget, total savings or cost for using recycled or waste prevention purchases, and the number of product types bought in each category. The annual report shall also include identification and discussion of instances in which this policy has been waived or found impracticable, a discussion of other barriers to the procurement of recycled products, and any instances when recycled content standards or price preferences were adjusted.

[Individual businesses should adjust this list to fit their information needs and reporting capabilities.]

8.0 EFFECTIVE DATES

- 8.1 This policy shall take effect on [date].
- 8.2 The [Director of Purchasing] shall issue implementation guidelines within one year following the effective date of this policy.

Source: This model policy is adapted from the "Model Procurement Policy for Recycled and Source Reduction Products" contained in *Resourceful Purchasing: A Hands-On Buyers Manual with How-To-Do-It Guidance for Source Reduction and Recycled Products* by Nancy Vandenberg, Susan Kinsella, and Carla S. Lallatin (Alameda County [CA] Source Reduction and Recycling Board, April 1996), pp. 17 - 22.

APPENDIX 3

MODEL IMPLEMENTATION GUIDELINES FOR RECYCLED AND WASTE PREVENTION PRODUCT PROCUREMENT POLICY

1.0 STATEMENT OF POLICY

- 1.1 It is the policy of [ABC Co.] to purchase waste prevention products and/or recycled products containing the highest amount of postconsumer material practicable or, when postconsumer material is impracticable for a specific type of product, containing substantial amounts of recovered material. Such products must meet reasonable performance standards, be available at a reasonable price and be available within a reasonable time.
- 1.2 All equipment bought, leased or rented shall be compatible with the use of waste prevention and recycled products.
- 1.3 [ABC Co.] shall promote its use of waste prevention and recycled products whenever feasible.

2.0 DEFINITIONS

[Businesses should repeat here the definitions contained in their general policy.]

3.0 POLICY IMPLEMENTATION

- 3.1 The [Director of Purchasing], in cooperation with [Waste Prevention Program Manager] and relevant departments and offices shall aggressively implement [ABC Co.'s] Waste Prevention and Recycled Product Purchasing Policy.
- 3.2 All departments, offices and agencies shall evaluate their product specifications and remove all obstacles feasible to buying recycled and waste prevention products. Among the obstacles to be removed are:
 - Requirements for virgin materials only,
 - Language that excludes recycled products,
 - Unnecessary qualifications (e.g., high brightness levels for paper),
 - Specifications written to describe particular nonrecycled and non-waste prevention products,
 - Performance standards unrelated to actual need,
 - “New” requirements that exclude remanufactured, reused or recycled content products.
- 3.3 Performance standards must be reasonable and related to operational need, and shall be designed to encourage the purchase of waste prevention and recycled products.
- 3.4 Purchasing documents shall be structured to eliminate obstacles to buying waste prevention and recycled products.

- 3.5 Purchasing documents that require vendors to supply “all or none” of the products sought, or variations thereof, shall be eliminated wherever feasible when recycled or waste prevention products are an option.
- 3.6 The [Director of Purchasing or authorized representative] shall establish and maintain recycled content standards for the purchase of recycled and waste prevention products that meet the intent and objectives of this policy and update them as market conditions require. [Note: Many jurisdictions have established recycled content standards. You can use those that are consistent with your policy to compile your business’s list.]
- 3.7 Buyers shall specify recycled content standards, as established by the [Director of Purchasing or authorized representative], in applicable bid solicitations and purchasing opportunities.
- 3.8 The [Director of Purchasing] shall maintain a list of product categories exempt from this policy. [Insert list of exempt categories.]
- 3.9 When no recycled content standards exist, buyers shall purchase products with the highest percentage of postconsumer materials practicable, as long as performance and availability meet requirements and price is reasonable within the parameters of this policy. In cases when products cannot technically contain postconsumer material, or insufficient postconsumer materials are available to meet demands, buyers can substitute the highest practicable amount of preconsumer material. When necessary to match national, state or [jurisdiction] policies, buyers may seek products with both postconsumer and preconsumer materials.
- 3.10 Purchasing documents shall request identification of recycled content (recovered and postconsumer materials, as applicable) for products whenever feasible.
- 3.11 Bids shall state that bidders’ failure to provide recycled content information shall mean zero recycled content.
- 3.12 The percentage of postconsumer and total recovered materials content in paper products shall be determined by fiber weight. Total product weight shall be used for all other types of products. For products with varying surface treatments, such as insulation, total product weight shall refer to only the core materials.
- 3.13 Bidders shall be requested to minimize packaging to the greatest extent practicable. Individual buyers shall encourage vendors to reduce packaging as much as possible.
- 3.14 Bidders shall be encouraged to offer waste prevention product alternatives if they can substantiate the waste prevention benefits.
- 3.15 Successful bidders shall be required to certify the percentage content of postconsumer and/or total recovered material, as specified, in products to be purchased. Individual buyers should make every effort to confirm recycled content information when seeking telephone or faxed quotes or direct purchases.
- 3.16 Buyers shall insert recycled content certification forms in all appropriate purchasing documents for non-exempt product categories.
- 3.17 Claims of waste prevention in the manufacture or use of any product shall be certified.
- 3.18 Buyers shall justify in writing purchases of nonrecycled or non-waste prevention products to the [Director of Purchasing or authorized representative], who may waive in writing a requirement of this policy when he/she determines justification supports such a waiver and it is in the best interests of [ABC Co.]. In those instances where it is deemed impracticable to procure a waste prevention or recycled product, a specific explanation for the exclusion must be included in the purchasing record.

3.19 Equipment purchased or rented by [ABC Co.] shall be compatible, whenever practicable, with the use of waste prevention and recycled products. Examples:

- Copiers with the default set to double-sided copying
- Copiers that guarantee compatibility with recycled products, including paper and laser toner cartridges

If deemed impracticable, a specific reason for using incompatible equipment must be included in the purchasing record.

3.20 All departments and offices shall ensure that they and their contractors use both sides of paper sheets whenever practicable.

3.21 Whenever practicable, recycled products shall be labeled as such in a standard format. Example:

- Printed pieces and copies, including letterhead and business cards, shall carry the following notation: Printed on recycled paper.

3.22 All [ABC Co.] vendors, contractors, and service providers shall be notified of this requirement to label or otherwise designate recycled products as such at the time competitive bids or proposals are solicited and at other appropriate opportunities. Grant applicants shall be notified of this requirement early in the grant application process.

3.23 Buyers are authorized to participate in, and encourage other businesses to participate in, cooperative purchasing agreements which meet the objectives of this policy.

3.24 The [Director of Purchasing or authorized representative], and [relevant departments and offices] shall cooperate in hosting or publicizing seminars, workshops, trainings and bidders meetings to promote [ABC Co.'s] policy.

3.25 The [Director of Purchasing or authorized representative], in cooperation with [Waste Prevention Program Manager], shall educate buyers on issues relevant to buying waste prevention and recycled products whenever necessary and appropriate.

3.26 Buyers shall educate vendors, suppliers, and contractors on issues relevant to waste prevention and recycled products whenever necessary and appropriate.

4.0 PRECEDENCE

4.1 When conflicts occur in product selections, the following hierarchy shall be used:

- Reduction in quantity, volume, weight or toxicity;
- Reusability;
- Recycled content.

Buyers shall maximize this “reduce, reuse, recycle” hierarchy whenever possible. Products shall also be evaluated for recyclability.

- 4.2 Whenever possible, buyers shall combine the hierarchy components to achieve the greatest environmental benefit possible. Example:
- It may be better to replace a recycled product with a reusable product. An even better choice would be a reusable product that also has recycled content.
- 4.3 Before seeking bids, buyers should evaluate the capacity to reuse, recondition or recycle a product and its packaging through existing recycling collection programs. If a product is not recyclable, buyers should evaluate whether the costs of disposal correspond beneficially with the ownership costs and environmental benefits. In some cases, a product may not qualify for purchase because it is not compatible with [jurisdiction's] recycling system.
- 4.4 When no bidder meets the specified minimum recycled content standard, buyers may purchase the product with the highest percentage of postconsumer content or, when postconsumer content is not practicable, the highest percentage of recovered material. This can only occur when the purchasing document explains it as a method for contract award.
- 4.5 When both recovered material and postconsumer material are specified, buyers may accept the lowest cost bid that offers a substantially higher amount of postconsumer content than the specification requires but does not meet specified recovered material requirements, even when other bidders meet the specification in the purchasing document. This can only occur when the purchasing document explains it as a method for contract award.
- 4.6 Buyers shall have the flexibility to evaluate environmental benefits and ownership costs when evaluating prices to determine the lowest responsible bid. Buyers shall compare, in appropriate cases, the ownership costs of competing products. Purchasing documents must specifically explain this as a method for contract award.

5.0 REASONABLE PRICE

[For businesses authorizing buyers to specify only recycled and/or waste prevention products in appropriate cases]:

- 5.1a Buyers shall buy recycled and waste prevention products whenever possible.
- 5.2a Purchasing documents shall specify recycled and/or waste prevention products whenever feasible.

[For businesses implementing a price preference for recycled products]:

- 5.1b Buyers may apply a price preference of up to [x percent] for products that contain at least the minimum of recycled content specified.
- 5.2b Purchasing documents shall request prices for both recycled/waste prevention products and nonrecycled/non-waste prevention alternatives, and bidders shall be allowed to offer prices for either alternative, or for both.

[Optional but recommended flexibility for businesses implementing a price preference policy]:

- 5.3 The [Director of Purchasing] is authorized to purchase recycled and waste prevention products when the price differential is higher than the price preference allows when the [Director of Purchasing] determines in writing that the additional cost is reasonable and in the best interests of [ABC Co.].
- 5.4 The [Director of Purchasing] is authorized to raise or lower the price preference percentage up to [x percent] for recycled and waste prevention product categories in response to market conditions. The decision to change the price preference shall be substantiated for each product category.
- 5.5 Buyers may apply to the [Director of Purchasing] for authorization to exceed the [x percent] price preference if the additional expenditure, above the price preference, is no greater than [x percent or x dollars].

[For businesses giving no authorization for recycled and waste prevention only purchasing or for a price preference, but which are willing to spend slightly more for some recycled and waste prevention products in specified circumstances]:

- 5.1c On a case-by-case basis, the [Director of Purchasing] is authorized to purchase recycled and waste prevention products at more than the lowest cost when the following conditions are met:
 - a. The price differential is no greater than [x percent or x dollars] over nonrecycled or non-waste prevention products,
 - b. The bidder is responsive and responsible,
 - c. The [Director of Purchasing] determines in writing the additional cost is in the best interests of [ABC Co.], and
 - d. No substantial budget impact would result.
- 5.2 Buyers may apply to the [Director of Purchasing or authorized representative] for authorization for the additional expenditure.

6.0 APPLICATION

- 6.1 All [ABC Co.] departments, offices, vendors and contractors shall comply with this policy.
- 6.2 Purchasing documents shall include requirements for successful vendors and contractors to comply with this purchasing policy.
- 6.3 Purchasing documents shall specify that vendors and contractors must report [insert when, to whom] the estimated quantities of waste prevention and recycled products with the percentage(s) of postconsumer and/or total recovered materials for applicable products used to complete [ABC Co.'s] contracts, agreements, and/or blanket orders. Use of nonrecycled or non-waste prevention products requires justification.

7.0 REPORTS

- 7.1 The [Director of Purchasing or authorized representative] shall report to [ABC Co.] management annually, for both waste prevention and recycled purchases, annual dollar expenditures, percentage change from previous years, percentage of total purchasing budget, total savings or cost for using waste prevention and recycled products, and the number of product types bought in each category. The annual report shall also include identification and discussion of instances in which this policy has been waived or found impracticable, a discussion of other barriers to the procurement of recycled and waste prevention products and any instances when recycled content standards or price preferences were adjusted. [Individual businesses should adjust this list to fit their information needs and reporting capabilities.]
- 7.2 Buyers shall obtain quotes for comparable recycled/waste prevention and nonrecycled/non-waste prevention items to fulfill reporting requirements.
- 7.3 Buyers shall establish virgin prices on a case-by-case basis at the time of the bid:
- On annual contracts, agreements and/or blanket orders, request both virgin and recycled product pricing during the bidding process;
 - On annual contracts, agreements and/or blanket orders, if asking for recycled products only, survey the market for virgin product prices by contacting at least three suppliers at the time of establishing the annual contract;
 - For items not covered by annual contracts, agreements and/or blanket orders, either request both virgin and recycled product pricing during the bidding process or survey the market for virgin product prices by contacting at least three suppliers;
 - If buyers do not, or cannot, obtain prices for virgin counterparts, the recycled product is to be considered the low cost alternative and no price preference applies.
- 7.4 Buyers may specify in purchasing documents that vendors are required to furnish annual vendor reports by [date] indicating the quantity, dollar amount, percentage(s) and type(s) of recycled content for all products furnished to [ABC Co.].
- 7.5 All departments, offices and agencies shall submit reports to the [Director of Purchasing] by [date].

8.0 RESPONSIBILITIES

[Director of Purchasing], in cooperation with [Waste Prevention Program Manager], shall:

- 8.1 Designate products to be evaluated and processes and procedures to be used or adopted by departments and offices. Periodically transmit this information to departments and offices for implementation.
- 8.2 Provide departments and offices with information to facilitate their evaluation and purchase of waste prevention and recycled products, inform them of their responsibilities under this policy, and provide technical assistance in policy implementation.
- 8.3 Host or publicize seminars, workshops, trainings and bidders meetings to promote [ABC Co.'s] policy; educate buyers on issues relevant to buying waste prevention and recycled products.

- 8.4 Establish and revise recycled content standards as necessary to ensure that recycled products purchased under this policy contain the maximum practicable amount of postconsumer and recovered material and are consistent with guidelines and regulations promulgated by the United States Environmental Protection Agency, [relevant state], and other federal, state and local agencies.
- 8.5 Maintain a list of current recycled content standards for appropriate recycled products.
- 8.6 Transmit recycled content standards to all departments and offices.
- 8.7 Maintain a list of exempt product categories.
- 8.8 Assemble an annual report to [ABC Co.] management on the status of policy implementation.

[ABC Co.] departments and offices:

- 8.9 Ensure that contracting procedures do not discriminate against waste prevention and recycled products without approved written justification.
- 8.10 Assign personnel to evaluate appropriate waste prevention and recycled products to determine the extent to which each may be practicably used by [ABC Co.] and its vendors and contractors.
- 8.11 Revise purchasing procedures to maximize the specification of waste prevention and recycled products whenever practicable and facilitate compilation of data on the purchase of such products by [ABC Co.] and its vendors and contractors.
- 8.12 Transmit evaluation results and procurement data to the [Director of Purchasing] by [date] each year for inclusion in the annual report to [ABC Co.] management on the status of policy implementation.

9.0 EFFECTIVE DATES

- 9.1 This policy shall take effect on [date].

10.0 PURCHASING CLAUSES

[For businesses that cannot generate purchasing documents through their software]:

- 10.1 The following clauses were approved for use by [Director of Purchasing] on [effective date] for use in standard terms and conditions. Review all new purchasing documents carefully to be certain that all parts of the document, including specifications, meet the intent of these clauses.

[Insert clauses for standard terms and conditions.]

10.2 The following special clauses were approved by [Director of Purchasing] on [effective date]. Review all new purchasing documents carefully to be certain that outdated clauses are removed or revised as necessary.

[Insert bid clauses for the various types of purchasing documents affected. State the type of document, then list the clauses with the specific circumstances when the clause applies.]

[For businesses that generate purchasing documents with their software]:

10.1 Appropriate waste prevention and recycled product bid clauses have been developed for use by buyers. These are updated periodically. Review the clauses in standard terms and conditions and in special terms and conditions for the latest update before developing purchasing documents. Carefully review all new purchasing documents to be certain that outdated clauses are removed when new clauses are inserted.

[Insert the source from which to obtain relevant bid clauses. Be certain there is a mechanism to state the most recent update. Explain where to find clauses for each type of purchasing document used by your business.]

Source: These model guidelines are adapted from the “Implementation Guidelines for Source Reduction and Recycled Product Procurement Policy” contained in *Resourceful Purchasing: A Hands-On Buyers Manual with How-To-Do-It Guidance for Source Reduction and Recycled Products* by Nancy VandenBerg, Susan Kinsella, and Carla S. Lallatin (Alameda County [CA] Source Reduction and Recycling Board, April 1996), pp. 23 - 34.

