

# WASTE MANAGEMENT

By

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## Steps to Developing and Maintaining a Program

### Set Your Program in Motion

It's easier than you think.  
Use this step-by step Guide  
To help you design a Program that is tailored to  
Meet the needs of your business. If your business  
Has already established a program, look here for ideas  
On how to improve or expand your Program.

Waste reduction is a smart business approach both from domestic and industrial life. This action approach is aimed at saving money and precious natural resources. Look for opportunity to reduce waste through all areas of your business.

The 11 steps program in any industry will at least give vision, how to minimize waste production.

### **Step 1**

#### **Gain Management Support**

Management support is critical to the success of your program. To gain support, communicate effectively and demonstrate how a waste prevention and recycling program can save the company money, improve employee morale and save natural Resources.

*Programs succeed best when management:*

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- Implements Company-wide waste reduction and recycling policies.
- Allocates resources (Personnel and money).
- Support incentives to reward staff involvement
- Stays committed and involved
- Shows leadership through example—by reducing waste, recycling and buying Recycled

## **Step 2**

### **Choose a Coordinator**

Select one person to coordinate the program. Choose someone enthusiastic and organized who communicates well with co-workers and management. The coordinator will:

- Work with others to evaluate which materials can be reduced and recycled
- Teach co-workers and management how to reduce, reuse and recycle waste
- Coordinate activities with service providers and other company departments
- Keep everyone in the company informed about the program goals and successes.

If your business has several departments, you may want to create a waste reduction and recycling team to work with the coordinator. The team should include someone from each department including management, maintenance, production purchasing personnel and food service.

## **Step 3**

### **Perform a Waste Assessment**

Evaluate your business throw always, what is recycled and how much your business pays for garbage service. A waste assessment will address.

- How much waste your business generates
- What types of materials you are thrown away
- Where your waste is going and how it is managed
- How much your collection and disposal services cost
- How much of your waste can be reduced and/or recycle

Through this assessment employees will become aware of the waste they create and how it is managed. The assessment will help staff target opportunities for reduction and recycling

*For each material identified during your waste assessment think about the best a management option:*

- Reduce it.
- Reuse or donate it.
- Purchase it – made from recycled materials.
- Recycle it.
- Continue to dispose of it properly until there is a better option.

## **Step 4**

### **How-To Trim Your Trash**

Waste reduction provides an effective way to lower your costs throughout all areas of your business, including offices, break room, building maintenance, shipping, manufacturing and equipment/vehicle maintenance.

#### **Examples of waste reduction include:**

- Using both sides of a sheet of paper when printing and copying.
- Bringing lunch in reusable containers
- Purchasing or leasing washable, reusable cleaning cloths.
- Using raw materials efficiently.
- Avoiding fluid spills during equipment and vehicle maintenance.

Brainstorm with employees about your business' day-to-day operations and work together to identify other waste prevention opportunities.

#### **Banned From Garbage**

Always evaluate everything you throw away to determine whether it should go into your garbage or needs special handling. Under Minnesota law, it is illegal to throw away some materials with your regular garbage. Materials are typically banned from garbage disposed because they pose environmental and human health concerns, as in the case of hazardous materials, or in order to conserve resources.

Here is a list of more common materials that are banned from disposal with regular garbage.

- Antifreeze
- Asbestos
- Button batteries (silver oxide or mercuric oxide)
- Computer and monitors
- Fluorescent lamps
- Hazardous waste (thousands of materials subject to regulation)
- High-intensity discharge lamps (HIDs) or mercury vapor
- Infectious waste
- Lead acid batteries (motor vehicle, rechargeable tools, back-up power, etc)
- Lead paint
- Lead and lead-bearing items
- Liquids
- Lithium batteries (except fully discharged 9 volt or smaller)
- Major appliances (refrigerators, air conditioners, dehumidifiers, microwave ovens, etc)
- Mercury & mercury-containing products (medical devices, thermometers, switches)
- Nickel cadmium batteries and devices containing them
- Oil and oil filters

- PCB containing devices (ballasts, electric motors, transformers, capacitors, etc)
- Petroleum products
- Phone books
- Radioactive waste
- Recyclable waste
- Televisions and other products containing cathode ray tube (CRTs)
- Thermostats switches and other devices containing mercury
- Tires
- Yard and tree waste

### **Waste Reduction Checklist**

Waste reduction is a smart business approach to saving money and precious natural resources. Look for opportunities to reduce waste throughout all areas of your business. This checklist provides waste reduction strategies that have been successfully adopted by many business and may help you think of additional waste reduction activities specific to your company.

### **Office**

- Start an office paper reduction campaign. Contact the Minnesota office of environmental at (651) 296-3417 and request the office waste paper reduction kit.
- Purchase or lease copiers and laser printers equipped to make two sided (duplex) documents.
- Use both sides of paper when printing and copying.
- Use reusable fax cover sheets or fax transmission labels instead of a full cover sheet.
- Use reusable interoffice envelopes
- Make use of back side of waste paper for faxes, or as scratch paper.
- Use e-mail for internal memos and exchanging electronic documents instead of paper.
- Use remanufactured toner cartridges for printings and copiers.
- Keep mailing lists up to date to avoid duplication.
- Post announcements on a bulletin board instead of distributing individual copies.
- Maintain a central filing system to eliminate duplication, or store information electronically.
- Proofread documents carefully before printing.
- Share material and circulate single copies of documents, newsletters and magazines among employees
- Sell or donate your used office furniture and equipment.
- Turn off computers copiers lights and other equipments when not in use.

### **Break Room**

- Use reusable glasses and cups rather than disposables throughout the office.  
Keep a supply on hand for visitors.
- Encourage employees to bring lunches in reusable containers.
- Provide a microwave refrigerator an area for dish washing stocked with supplies to support employees efforts to use reusable.

- Set-up a food waste composting program. Contact your county environmental office listed on the back cover for information on establishing and maintaining an office compost program.

### **Building operations and maintenance**

- Evaluate safer and waste reducing options for cleaners and solvents.
- Choose non-hazardous or less-hazardous alternatives.
- Purchase solutions in concentrate and use refillable applicators.
- Use metered dispensing systems to assure the right amount of product.
- Purchase products in returnable reusable bulk containers
- Contract for cleaning and janitorial service with a vendor who uses non-hazardous or less-hazardous cleaning supplies.
- Purchase or less washable reusable cleaning cloths.
- Use cloth roll towels or air dryers in restrooms instead of paper products.
- Replace disposable filters for air circulation systems with reusable filters.
- Use paint that contains fewer or no volatile organic compounds (VOCs). And heavy metals to promote worker safety and a healthier workplace.
- Plan purchase carefully to avoid leftovers such as paint.
- Install flow misers on toilets which save up to one gallon of water with each flush.
- Install automatic faucets.
- Fix leaking faucets.
- Replace inefficient lights with high-efficiency fluorescent lamps.
- Use motion sensor to turn off lights when a room is not in use.
- Have your heating and cooling system inspected and audited for energy efficiency.

### **Shipping, Replacing and Distribution**

- Buy suppliers in bulk or economy size packaging and buy only what you need.
- Ask your current suppliers about minimal packaging options.
- Ship your products in returnable, reusable containers and offer cost incentives for participation.
- Reuses incoming packing materials or use shredded office paper and other discarded material for packaging.
- Avoid over packaging your products. Talk to your customers about alternatives and provide a least waste option that satisfies their needs.
- Reuse wood pallets or use returnable plastic pallets or slip sheets.

### **Manufacturing**

- Raw materials could be used more efficiently.
- Less hazardous or recycle content material could be substituted.
- New technologies are available to recover and reuse waste water.
- Salvage and reprocess clean materials in house of find and outlet.

## **Equipment and Vehicle Maintenance**

- Avoid spilling and fluids to reduce the use of sorbent materials. Use a drip pan or squeegee to capture and reuse spilled fluids.
- Launder oil sorbents to extend their useful life
- Send used heavy equipment air filters to be cleaned and reconditioned. Reconditioned filters can be reused as many as three times and are less expensive than new filters.
- Invest in high equipment and develop a preventative maintenance schedule to extend the life of the equipment.
- Evaluate minima waste part cleaning systems. Contract with a part washer solvent company process an dirty solvents
- Use steam or high pressure water and soap for cleaning instead of chemical solvents.

## **Step 5**

### **Design Your Recycling Program**

Your next consideration when setting up your waste management program is the best method for getting recyclables to a market, and once you know this, how to efficiently collect and store these materials at your location.

### **Determine the Best option for getting Recyclables to Market**

These are two options for getting recyclable to a market:  
Self-hauling or using a service provider.

#### **Self-Hauling**

For business that has amounts too small for a service provider to pick up, consider self-hauling recyclable to a collection center. Consider the following factors:

- Where can the recyclable are brought?
- What are the market specifications for the recyclables?
- What are the potential revenues to offset the cost of collection and transportation?
- Is the market reliable?
- Does your company have adequate labor and equipment to collect and transport the recyclables?

### **Choosing a Recycling Service Provider**

Most business chooses the convenience of having recyclables picked up by a recycling service, rather than bringing the materials to a drop-off location. Talk to your current waste hauler to determine if they provide recycling service. It is always a good idea to do comparison shopping to find the most complete reliable and cost effective collection service. Many waste haulers provide recycling service along with their trash collection program.

### **Question to Ask Potential Recycling Service Providers**

- Have you worked with my type of business before?
- Do you have references?
- What materials do you collect?

- How should recyclables be sorted?
- Is there a minimum amount required for collection?
- Do you provide collection containers (desk paper trays, bins, barrels dumpsters, outside storage containers, etc)?
- How the pick-up service is scheduled (weekly, on-call, etc)?
- Do you provide educational materials and recycling training?
- What are your payment terms?
- Do you require a contract for service?

### **Designing a Collection and Storage System**

Every recycling program must include a convenient efficient and clean material collection and storage system.

Consider the following factors when designing your system:

- Keep the system simple and convenient for customers and employees.
- Determine when recyclable materials will be collected.
- Decide who will handle the recyclables at each step of the way.
- Select the type and size of recycling collection containers needed.
- Place the collection containers in convenient and safe location.
- Label all containers clearly.
- Choose a location for storing recyclables once collected.
- Inquire about local zoning and/or fire code requirements related to the type and location of storage containers.

It is essential that all staff who handles the recyclables whether employees or contracted custodial services, be trained to understand how the program works. Plan for staff turnover, and include components of the recycling program when training new custodial staff or hiring a new service.

## **Step 6**

### **Purchase Environmentally Preferred Products**

Waste reduction and recycling are integral parts of a successful waste management program. Support these activities and take your program one step further—exercise your purchasing power and choose environmentally preferred products. Environmentally preferred product and service have a reduced impact on the environment and human health.

### **Ensure that your Purchase Support Your Waste Reduction and Recycling Efforts**

- Make a company-wide commitment to purchase environmentally preferred products and services.
- Identify opportunities to purchase environmentally preferred products and services.
- Revise purchasing policies, ordering practices and product specifications.
- Set purchasing goals.

With every purchase, ask the question, "what alternative product is available that meets our company's needs and is a better choice for the environment'?"

## **Question to consider before purchasing any product**

- Is the product non-hazardous or less hazardous than other choices?
- Is the product reusable, durable or easily repaired?
- Is the product made from recycled material or renewable resources?
- Does the product conserve energy or water?
- Is the product refillable or available in bulk quantity to reduce packaging?
- Is product leasing an option?
- What happens to the product at the end of its life?

## **Buy Recycled**

Recycling is more than collecting material to keep them out of the garbage. Material must be processed and made into new products to complete the recycling loop. Buying recycled content product is what makes recycling work.

Look for opportunities to substitute recycled content products throughout every area of your business. The quality of most recycled content products is comparable or exceeds the quality of products made from virgin material. Look for recycled content office products building material packaging raw materials for manufacturing and other items made with recycle content materials.

## **Examples of Environmentally Preferred Purchasing**

### **Equipments**

- Develop maintenance contract and purchasing specification for laser printer and copy machines that support the use of recycled content paper and remanufactured toner cartridges.
- Purchase used equipment.
- Purchase or lease copiers and laser printers that automatically copy or print on both sides (duplex printing).
- Purchase or lease copiers and printers that have the ability to save power or shutdown between extended inactive periods, and make sure these features are activated and properly programmed. To save energy and money, turn off machines when staff leaves work each night.

### **Suppliers**

- Specify chlorine free recycled-content paper and soy –or agi-based ink when placing printing orders.
- Purchase laser, copy and letterhead paper with 30 – 100% post consumer recycled paper content.
- Contract with a janitorial service that uses less-hazardous (less toxic) or non-hazardous cleaners.
- Shop at reuse centers or through materials exchange programs

### **Products**

- Work with vendors who use waste prevention techniques, such a minimal packaging returnable shipping containers and pallets.

- Manufacture products and packaging that can be reused or recycled.
- Evaluate all purchase –think about "cradle to grave" cost such as liability. Environmental impacts and employees safety during the manufacture, use and disposal of a product.

## **Step 7**

### **Kick off your program**

Employee's participation is critical to the success of your program. Gain the support and active participation of upper management right away. When employees see their boss reducing, reusing and recycling, they are more likely to participate. Educate all employees about the program and make it easy for everyone to participate. Posting instructional sign throughout your business can provide an effective and easy way to educate staff.

### **Announce and Promote the Program**

Make an announcement at your next staff meeting, post a message on company bulletin boards or send an e-mail notice announcing the start of the new or improved program. Follow these steps:

- Announce the commitment to reduce waste, recycle and purchase environmentally preferred product.
- Spell out the new program procedures clearly.
- Introduce the program coordinator and provide his or her phone number and /or e-mail address.
- Encourage employees to share innovative ideas and solutions.

Some business hosts a special event or staff party to kick-off the program. Promote your waste reduction and recycling program internally and throughout your community. Hang posters or banners throughout building or distribute buttons. Look for opportunities include information about your program in community papers or company newsletters. Publicity materials and clip art are available through some of the county environmental office

### **Hold Training Sessions**

Staff meetings can provide an excellent time to hold training sessions. The coordinator and /or members of management should be prepared to answer questions, provide encouragement and discuss the programs successes and needs. It is often helpful to provide employees with a current list of materials that are accepted in the recycling program and brief program instructions such as the collection locations and material handling methods.

## **Step 8**

### **Track Program Successes**

It is time to track successes and let management know how the program is saving the company money. Monitor and evaluate the program to ensure its viability and success. Track any revenues and avoided cost resulting from the program, such as:

- Recycling revenues.
- Lower garbage bills.

- Reduced purchasing or operating costs.
- Avoided regulatory and compliance expense.

## **Step 9**

### **Keep Employees Informed & Involved**

Provide regular program update to employees and management. Employees need to know that their involvement helps to achieve the program's goals. Positive communication and employee recognition are critical components to the long-term success of the program. Here are some suggestions to keep employees informed and involved:

- Write an article about the program's successes and staff involvement for the company newsletter.
- Send e-mail updates on a regular basis.
- Post flyers reminding employees of program goals.
- Encourage each department to designate a "team leader" to monitor efforts.
- Train new employees during the orientation process.
- Give awards to employees or department who has demonstrated innovative strategies for waste reduction and recycling.

## **Step 10**

### **Get Recognition for Your Efforts**

Be proud of your program and publicize your efforts. When you make the commitment to reducing, reusing, recycling and purchasing environmentally preferred product. You're helping to improve the environment and your community. Your customers and members of your community will appreciate your effort. Let your program set an example for other to follow. Here are some ways to publicize your efforts:

- Send news releases about your program's accomplishments to community papers as well as environment business trade publications.
- Post signs and banners in public areas that inform visitors about your program. Include the statement "Printed on Recycled Paper" on your company's recycled-content letterhead.
- Motivate other business to establish their own programs. Speak at business meetings, workshops and seminars.
- Sponsor a local clean-up day or take part in community recycling activities & events. Let the community know your business cares.
- Apply to the Minnesota office of environmental assistance for a governor's award for excellence in pollution prevention or apply for the Minnesota waste wise leaders award.

## **Step 11**

### **Share with Your County How You Are Doing**

Remember, there are many resources available to help you and your business with your waste reduction and recycling program. Your county environmental office wants to know about your company's successes in recycling, reducing waste and pollution and buying environmentally

preferable products. They are available to provide assistance or refer you to an agency that may provide:

- Individual business consultations and on-site assistance.
- Grants and loans.
- Material exchange service.
- Business guides and fact sheets.
- Seminars and training.
- Recycling market information.
- Information on recycling service providers.