Best Practice Guide

Site Waste Management for Site Supervisors and Managers

NATIONAL WASTE ASSOCIATES
Changing Waste for Good

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Best Practice Guide to Site Waste Management For Site Supervisors and Managers

Introduction to This Guide

Good waste management keeps your site organized, safe and sanitary. It can also reduce your site's operational costs by lowering procurement, labor, and disposal costs.

By following this simple Best Practice Guide, you can benefit from:

- ✓ Income generation from separating materials for reuse or recycling
- ✓ Reduced costs by purchasing less material and increasing haulage efficiency
- ✓ Fewer accidents with safe storage and a tidy site
- ✓ Easy compliance with waste and recycling legislation in your area
- ✓ Conservation of natural resources
- ✓ Reduced CO_2 emissions
- ✓ Increased environmental performance
- ✓ Positive community interactions
- ✓ Engaged employees

This guide provides site managers and supervisors with simple steps that can be implemented immediately to improve site waste management. And most of them require little or no investment to put into action.

If you haven't considered how you handle your waste management recently, or you're looking to improve your site's environmental performance, there's something in this guide for you.

Safe Handling and Storing of Waste

Storing Waste

Waste must always be stored safely on your premises to prevent accidents, contamination, and pests. To do this, you must:

- Store waste in a secure place.
- Use suitable containers that will effectively contain the waste.
- Label containers clearly with the type of waste they contain.
- Use covers to stop waste from blowing away.
- Use waterproof covers if rain could cause contaminated run-off or prevent the waste from being reused or recycled.
- Take additional precautions if you're storing hazardous waste – see *Hazardous Waste* below for more information.

It is important to store different types of waste separately, so that:

- They do not contaminate each other
- They can be reused or recycled more easily

Handling Waste

You have a responsibility to make sure that your employees handle business waste safely, without the risk of causing harm to themselves or the environment. While there are specific precautions that should be taken depending on the type of waste that your business generates, at the minimum you must ensure that:

- Employees are provided with the appropriate personal protective equipment (PPE) to segregate or move the waste that they are handling.
- This PPE is worn correctly at all times.
- Bags and bins are never filled over their designated weights to minimize the risk of manual handling injuries.
- Safe working practices are established, and training is provided to all employees.
- Bags and containers filled with clinical or special wastes are labeled correctly, securely fastened, and placed in an appropriately safe area awaiting collection.

- Adequate guidance and facilities are provided for employees to wash their hands after handling waste.

Pest and Vermin Prevention

Keep Your Premises Clean and Safe

Clean sites will reduce the risk of pest infestations, and provide a safe and pleasant working environment for your employees:

- Adopt a “clean as you go” policy when waste or mess is created.
- Implement a cleaning schedule detailing what will be cleaned and when, and when work will be checked.
- Empty and clean buckets after use.
- Hang brushes and mops off the floor after use and away from food storage rooms.
- Regularly clean refuse areas.
- Employ a cleaning contractor to carry out regular deep cleans.

Pest and Vermin Control

Large Waste disposal zones are the ideal environment for pests to thrive I if the proper control measures aren’t taken.

Poor waste management creates ideal conditions for germ-carrying pests like flies and cockroaches, as well as stinging pests like wasps and bees. Unsanitary conditions could also put your property at risk of an infestation.

According to Pennsylvania State University:

- **70% of good pest control is good housekeeping**
- **25% is good repair of buildings**
- **Only 5% is the use of pesticides**

- Keep trash chutes and outdoor trashcans closed and clean so pests are unable to feed on residues. Use detergent and hot water to clean containers regularly.
- Ensure that dumpsters are regularly sanitized.
- Keep dumpsters as far away from buildings as possible.

- Inspect disposal zones daily and keep the area surrounding dumpsters free of trash and discarded food.
- Investigate odor-neutralizing products that eliminate pest-attracting odors at the source instead of masking or treating them temporarily. Bio-enzymatic sprays can be a long-term solution for eliminating odor.
- Consider installing insect light traps and rodent monitoring stations in garbage rooms to monitor for and help prevent the spread of pests. Get these serviced regularly to keep them in good working order.
- Report sightings or signs of pests to building management immediately.
- Repair any holes or damage to the building before resorting to chemical treatment.
- Eliminate the source – immediately discard food pests have been feeding on.
- Regularly inspect all stock and storerooms.
- Keep doors and windows to waste storage areas shut.

Hazardous Waste

Hazardous waste is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment.

Examples include:

- ***Asbestos***
- ***Chemicals, such as brake fluid or print toner***
- ***Batteries***
- ***Solvents***
- ***Pesticides***
- ***Non-edible oils, such as car oil***
- ***Equipment containing ozone depleting substances, like***

According to the EPA, all generators of waste must determine if their waste is hazardous. Generators must also ensure and fully document that any hazardous waste they produce is properly identified, managed, and treated prior to recycling or disposal.

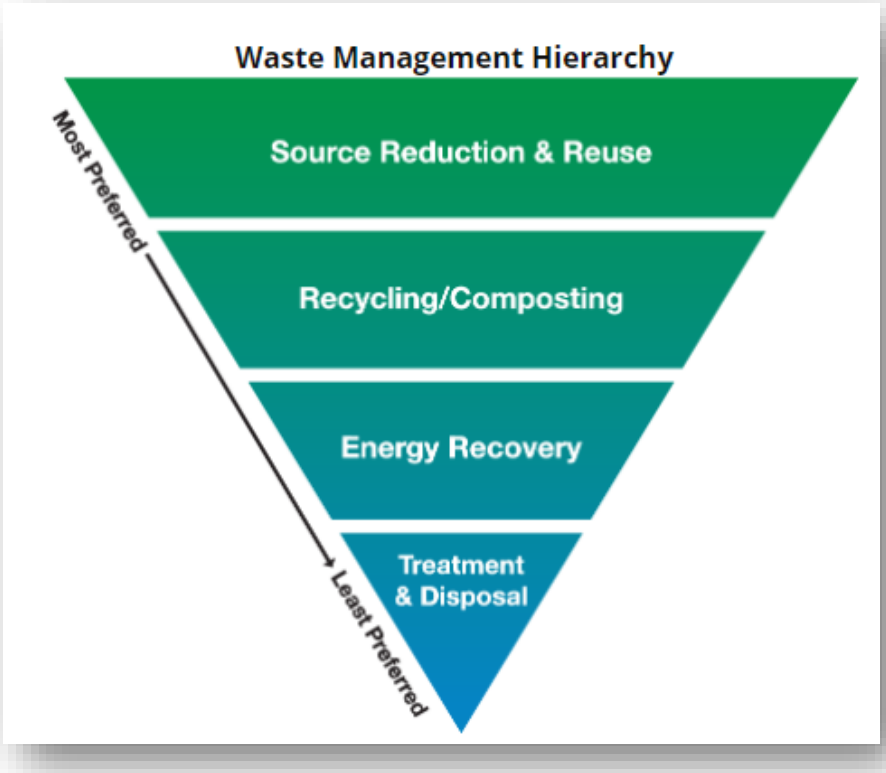
For more information, and to find out if any of the waste you dispose of is hazardous, you can visit the EPA's pages on hazardous waste: https://www.epa.gov/hw

Reduce, Reuse, Recycle

The Waste Management Hierarchy orders waste management strategies from the most, to least preferred.

At the top of the pyramid are the practices that can generate the greatest financial savings for your operation.

These practices are also ordered from best to worst for their impact on climate change, air and water quality, and resource depletion.



Source: https://www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy

Below we have listed some simple action points and initiatives that can be implemented to reduce waste and to reuse and recycle more.

Reduce

The most environmentally and cost-effective solution is to reduce the amount of waste your site creates. Below we provide suggestions for maximizing waste prevention:

- Plan deliveries to reduce waste created by improper storage.

- Keep protective packaging on materials and ensure storage areas are secure to prevent degradation.
- Photographs of damaged stock could be used to aid discussions and prevent re-occurrence.
- Reject materials that have been damaged during transit and request they be returned to the supplier. This will prevent materials that are not fit for their intended purpose from becoming your responsibility.
- Plan where bulk materials are stored to minimize transportation around the site. Breakage is most likely to happen during transit.
- Reject excessive packaging and request its return to the supplier.
- Consider suppliers that offer reusable packaging schemes.

Reuse

When there are no further opportunities to reduce waste, reuse is the next best step. This might be within your own premises, or through a third party. Below are some examples for how to reuse materials:

Construction / Manufacturing / Industrial / Onsite Works

- Fix materials associated with temporary work sites so they can be dismantled and reused multiple times.
- Use mechanical fasteners such as bolts, screws, and nails instead of sealants and adhesives.
- Collect off-cuts and use these first instead of new materials, storing them safely so they aren't damaged before they can be reused.
- Return, sell or donate unused materials.
- Find local charities that could benefit from your unused materials.
- Engage staff in the reuse process so that they look for opportunities to reuse as they complete their jobs.
- Repair items so they can be reused or returned to the supplier.
- Use local reuse networks for materials reuse.

Food

- Make a daily soup option from leftover meats and vegetables.
- Chop up and use leftover proteins for the salad bar.
- Use leftover breads for croutons.
- Make a staff meal out of leftovers from food service.
- Donate end of day un-served meals to a food recovery program.

- Engage staff in the reuse process so that they are looking for opportunities to reuse as they complete their jobs.

Recycle

Once all opportunities to reduce and reuse waste have been considered, materials should then be separated for recycling. Onsite separation guarantees the best material quality, can be done at little or no additional cost and will save you money:

- Keep materials separate to begin with, so that they don't have to be sorted later.
- Locate appropriately sized waste and recycling containers close to working areas (see *Location of Containers* for more information).
- Clearly label waste containers (see *Labeling of Containers* for more information).
- Keep hazardous wastes out of mixed waste. This reduces waste costs and increases the value of materials.
- Provide regular training on the materials that can be recycled / recovered on site (see *Staff Training* for more information).
- Recruit "recycling champions" to check bins for correct usage and to promote correct recycling practices.
- Label materials used on site, particularly plastics, to identify them and show how they can be recycled.
- Engage with staff and make the message personal to them to ensure their buy-in.
- Take pictures of contaminated bins and use these in staff training to correct behavior and prevent future instances.
- Keep recyclables clean, dry and separate from other materials or waste.

Location and Labeling of Waste Containers

Once you know what materials you want to separate for reuse or recycling, you now need to make it as simple as possible for your staff to do so. The location and labeling of containers is critical to this:

Location of Containers

- Consider the number of waste containers and storage areas, and their locations, to ensure it is easy for site staff to use the waste facilities.
- Be sure to put a waste container near to all reuse and recycling containers to prevent these from being used for general waste.
- Create a site plan that shows where all bins are located, so that their locations don't gradually move over time.
- Determine how to move materials and waste around the site. How will everything get into the correct containers?
- Assign responsibility for waste management within job descriptions.

Labeling of Containers

- Place labels on the containers wherever possible, so that there is no confusion if containers are moved or switched over when emptied.
- Make sure the signage is always visible, give a member of your staff the responsibility to repair and replace worn labels.
- Use color-coding throughout your premises, assigning a color to each waste stream. Explain this color-coding in staff training.
- Include common examples of acceptable materials for each stream to encourage correct separation.
- Consider including common examples of excluded / non-recyclable materials, if there are some that consistently contaminate your waste streams.
- Use images where possible.
- Make signs, text and images as large as possible.
- Create multi-language signage as needed (if not already mandated), together with appropriate images where you have staff whose first language is not English.
- Be consistent throughout the site!

Waste Data Monitoring

You will need data to show what a success your new waste management program is. Data enables you to compare improvements against a baseline, track ongoing performance and compare activity throughout the year.

Waste Monitoring in 5 Simple Steps

1) Set your baseline – this is the amount of waste that your site was generating before you implemented any of the initiatives in this guide. You can measure this by number of containers or weight per day or week – depending on the volumes of waste that your site generates. It can also be helpful to record how much you spent on waste for the same period.
2) Create a waste tracking spreadsheet.
3) Record data daily or weekly, depending on your volumes.
4) Break out weights or numbers of containers by the different materials that you are separating, e.g. glass / organics / cardboard / general waste.
5) Use this data in staff meetings to engage employees in the waste reduction strategies.

A waste audit can be a useful exercise to identify the materials that are going into your general waste that could be separated for reuse or recycling.

Waste Auditing in 5 Simple Steps

1) Set a date for the audit. This should be a day or week, of normal business activity; don't schedule it around the holidays.

Common materials include:

- Paper
- Cardboard
- Plastic bottles
- Other plastics
- Aluminum cans
- Glass
- Organics
- Materials packaging
- General waste

2) Determine the most common material types that your business generates, which you will look for in your audit. If other materials present themselves during the audit, you can add them at the time.
3) Get the materials you will need to complete the audit:
   a. A clean, quiet, safe area to complete the audit, away from vehicle movements
   b. A large tarpaulin to spread the waste onto
   c. PPE for sorters (gloves, aprons, face masks)
   d. Labelled containers for each sorted material
   e. Scales to weigh the sorted materials
   f. Clipboard, paper and camera to record the findings
   g. Waste container to discard the materials when the audit is complete
4) Conduct the audit

a. Note the date of the audit on the audit sheet, so that you can compare results against past or future audits.
b. Collect the bags or bins that will be used for the audit. If you want to audit waste from different departments or areas of the site, label each one with its location.
c. Weigh the bag or bin before sorting – this is the amount of general waste produced for that time period.
d. Open and spread the contents onto the waste audit tarpaulin.
e. Using the correct PPE, staff will place the materials into each of their containers until there is no material left on the tarpaulin.
f. Record the weight of each separated material and take a photo of each one.

5) Analyze the results
   a. Which categories had the most material in them?
   b. If you separated by department or area, did they have different mixes of waste categories?
   c. How much of your general waste was recyclable or reusable?
   d. Were there categories of waste that you didn't expect to find?

Next Steps

- Based on the results of your audit, determine if there are additional materials that you could start separating for reuse or recycling.
- Will this change the size of dumpster you need, or the pickup frequency?
- Set goals for increasing your diversion rate (the proportion of material that you keep out of your trash).
- Create guidelines for your staff to follow.
- Identify a timeline to reach your goal.
- Complete another audit after an appropriate amount of time to see if your changes are having the desired effect.

Staff Training

Waste management should be included in both new staff training and ongoing training programs. This will ensure that your staff members know exactly what is expected from them so that your waste management program can be as profitable and efficient as possible.

Training Basics

- Ensure that induction training includes a section on awareness of good waste management and the specific measures used at your site.
- Use regular meetings to make sure that all employees know how to reduce, reuse and recycle.
- Use images where possible in training sessions and materials, particularly where staff may not have English as their first language.
- Provide regular feedback to workers.
- Track progress and promote this at meetings to motivate staff to reach your goals.
- Create notice boards to promote the waste program and show KPIs and your progress against these.

Celebrate and Promote Success

- Highlight success in the program with posters showing the tons of material recycled and diverted from landfill each week.

Staff Monitoring

- Review waste management practice and check containers to ensure that the proper materials are going into them. If problems exist, find those responsible and provide them with refresher training.
- Photographs of damaged material can be used to aid discussions and help prevent re-occurrence.
- Review wastage rates – track the volume of materials coming on to the site compared to the volume of waste leaving the site.

Conclusion

As you have seen, there are many actions that can be taken to improve waste management on your site that require little or no investment. These improvements will make your site safer and more pleasant for your employees to work in, while also saving your organization money.

And the great news is, there are plenty that you can start today!

If you need help to put the suggestions in this guide into action, reach out to your waste management provider. Many waste management firms will be able to provide you with data on the materials you currently recycle, your diversion rates, waste tonnages and collection frequencies.

Some, like National Waste Associates, even provide online management dashboards where you can log in to see how your waste is currently being managed.

With all these benefits, what's stopping you from improving your sites' waste management performance?

- ✓ Income generation from separating materials for reuse or recycling
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