



SLAM Dunk Program

Proper Segregation –August 2014



SLAM Dunk Program

The intent of the SLAM Dunk Program is to promote sustainability, facilitate making the right choices by everyone, and NOT hinder our everyday operations, while providing opportunities to enhance it.

It is believed that with changes in society toward a more conscientious attitude toward the environment, most people will choose to properly dispose of any waste given the opportunity.

Every Vale employee, contractor and visitor is equally responsible to SLAM Dunk.

Reasons to SLAM Dunk

Reducing, Reusing and Recycling keeps waste out of the landfill, which is good for the environment.

To prevent damage to our new landfill cell liner. Only inches of slag and sand protect the new liner. Metal and wood are a risk for puncture.

The new Waste Management Facility (WMF) has been designed with five landfill cells. If we do not SLAM Dunk, the five cells are designed to last 30 years. With good SLAM Dunk practices, one cell will last 30 years.

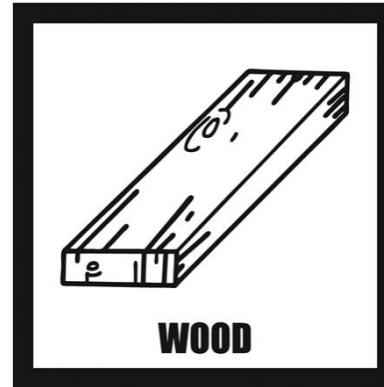
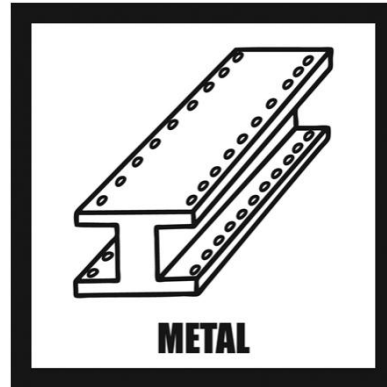
Properly segregated recyclables can save us money. Co-mingled General Recyclables cost us \$40/MT to recycle. Properly segregated Cardboard will pay us \$30/MT and Office Paper will pay us \$75/MT (a savings of \$100/MT!).

In our first year, our recyclables were worth an almost \$1000 rebate.

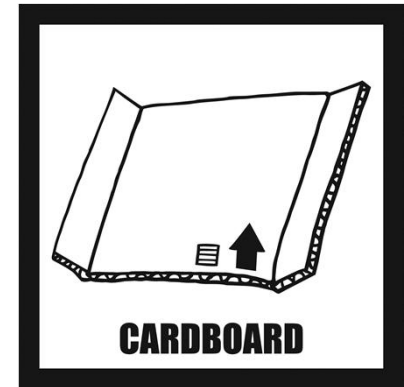
Waste Streams

SPI28-7 Handling of Scrap Metals and Material calls for segregation into 5 streams and most have added Cardboard:

- Scrap Metal
- Wood
- General Recyclables
- Hazardous
- General Waste
- Cardboard



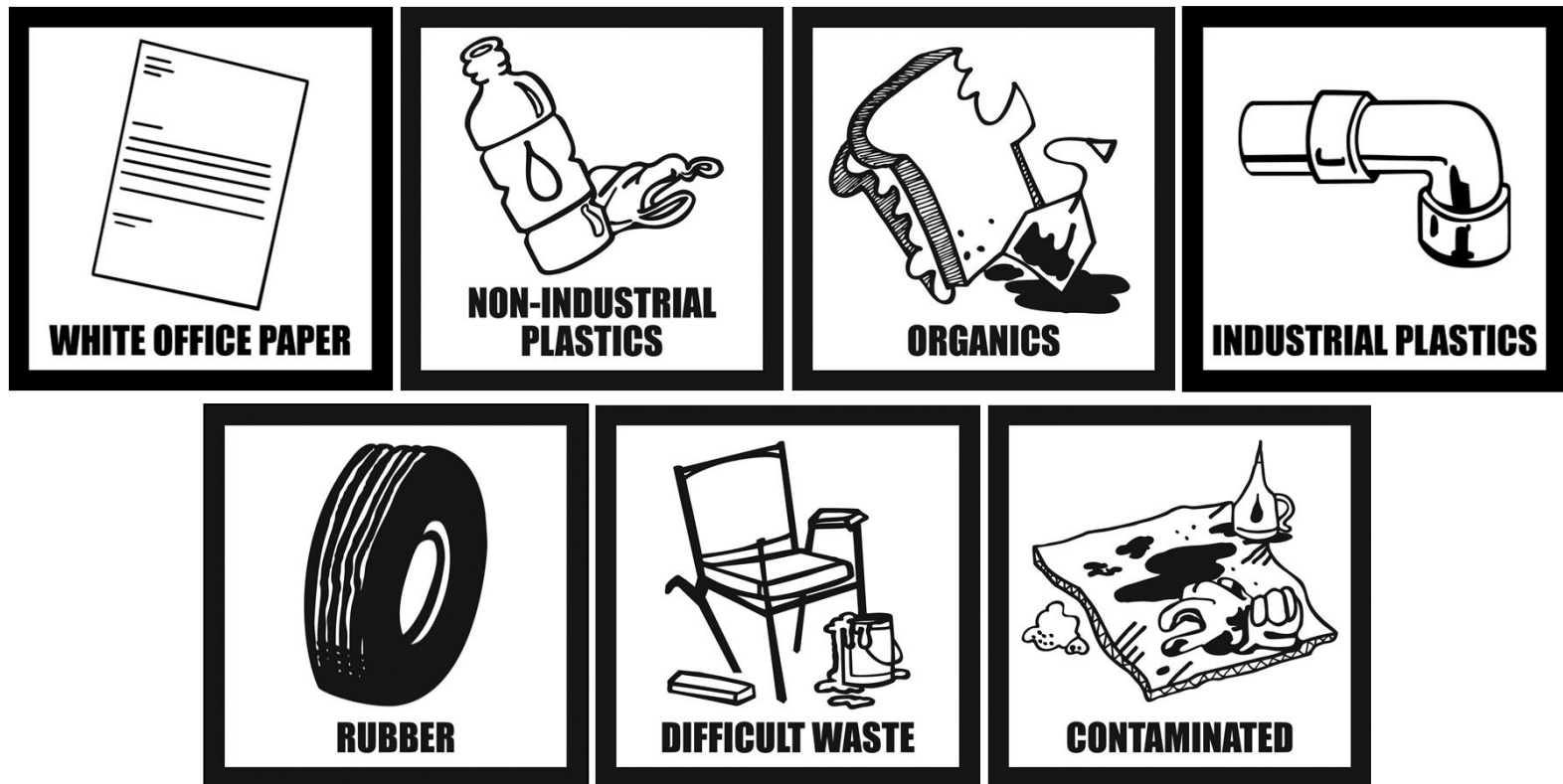
<p>WASTE OIL</p> <hr/> <p>MANUFACTURER VALE CANADA LIMITED</p> <hr/> <p>HAZARD SYMBOL:  </p> <p>SAFE HANDLING PROCEDURES Do not be under heat, flame or mist generated by handling or using this product. Store in a cool place with adequate ventilation. Avoid contact with eyes and skin. Wear eye protection, gloves and protective clothing when handling. Do not enter water areas. Do not handle or store near open flames, sources of ignition, or sources of heat. Wash thoroughly after handling.</p> <hr/> <p>FOR FURTHER INFORMATION REFER TO MSDS</p> <hr/> <p>DEPARTMENT OF ORIGIN: AREA: LOCATION:</p> <p>VALE CANADA LIMITED MSDS AVAILABLE</p>	<p>OIL/GREASE CONTAMINATED GRANULAR WASTE ABSORBENT, ZORBALL, FLOOR DRY, SAND, SOIL</p> <hr/> <p>MANUFACTURER VALE CANADA LIMITED</p> <hr/> <p>HAZARD SYMBOL: </p> <p>SAFE HANDLING PROCEDURES Do not breathe dust, fume or mist generated by handling or using this product. Use with adequate ventilation. Avoid contact with eyes and skin. Wear eye protection, gloves and protective clothing when handling. Do not store near acids.</p> <hr/> <p>FOR FURTHER INFORMATION REFER TO MSDS.</p> <hr/> <p>DEPARTMENT OF ORIGIN: AREA: LOCATION:</p> <p>VALE CANADA LIMITED MSDS AVAILABLE</p>
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Waste Streams – SLAM Dunk Additions

SLAM Dunk calls for further segregation from the main 5 streams:

- Office Paper
- Industrial Plastic
- And those that do not fall into the above
- Non-Industrial Plastic
- Rubber
- Organic



Waste Streams - Basic Requirements

In general there are handling requirements for all waste streams.

- Do it right the first time! Proper segregation is a must.
- Flatten waste as much as possible. Boxes **MUST** be empty and flattened.
- Rinse all recyclables whenever possible. Scrape/wipe clean when rinsing facilities are not available.
- Avoid the use of plastic bags. Use clear bags when necessary.
- Certain waste types within the streams have specific handling requirements for safety or to facilitate final disposal.
- The WMF Operator (Tervita) will only maintain the bins at the plant Waste Laydown Areas (WLAs). Waste prepared for collection must be brought to the closest WLA.
- Most WLAs have a Miscellaneous Waste Bin (MWB) to hold the “one of” waste types.
- **Everyone** is accountable to properly segregate waste and empty bins.

Miscellaneous Waste Bin

Most WLAs include a MWB.

For small quantities of properly prepared waste where a specific bin is not provided. Ex. An empty aerosol can at the General Office. A faulty PLC card at T1.



Scrap Metal

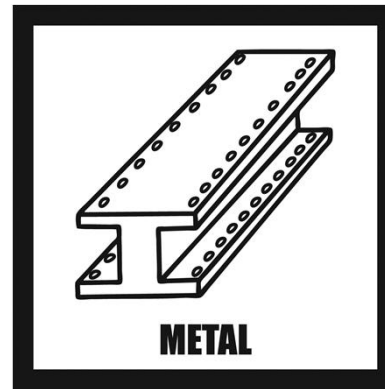
- Pipes
- Valves
- Plates
- Beams
- Strappings
- Shavings
- Rubber lined

Proper segregation will increase the value when sold.

Metal contaminated with oil or grease needs to be contained to prevent rain and snow from washing it into the earth. Use labeled drums or bins to keep it separate.

Use steel tipping bins for smaller items. Place full tipping bins at closest WLA.

Place large items on pallet at closest WLA.



Scrap Metal - Specialty

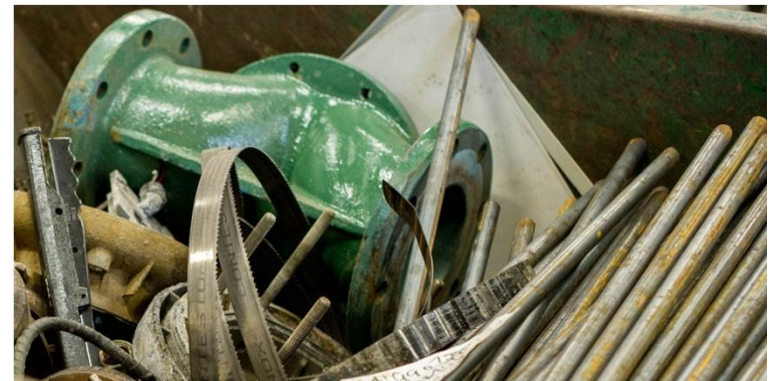
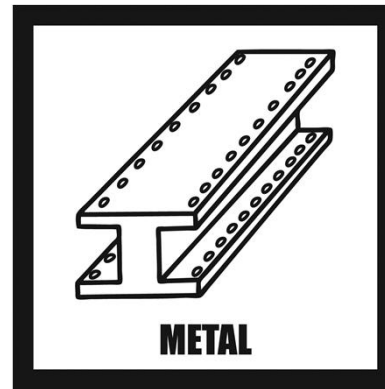
Using the new standard for overhaul & rewind sizing for motors. Place waste motors less than 50lbs in closest MWB, secure motors 50lbs or greater to a pallet at closest WLA.

Shavings must be kept separate in drums or tipping bins.

Segregate specialty metals using labeled drums or bins. Bring full containers to the closest WLA.

- Zinc
- Bronze
- Stainless Steel
- Titanium
- Aluminum
- Copper
- Cables

Use an outdoor label maker to provide specific labels.



Wood

- Pallets
- Carpentry scrap
- Handles
- Packing crates
- Cribbing
- Cable reels

All **exposed** nails are to be removed or bent.

Wood products are to be dismantled if done easily.

Contaminated wood must be kept separate.

If possible, cut large pieces to < 4' and place in Wood bin. Bring full Wood bins to closest WLA.

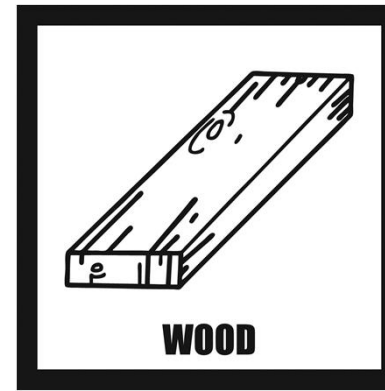
For large pieces that cannot be cut, secure to a pallet at the closest WLA.

Neatly stack pallets up to 4' high at the closest WLA.

Pallet stacks are to be separated as per the following:

- Blue and orange
- Clean and reusable (2 or less broken rungs)
- Clean and unusable (3 or more broken rungs)
- Nickel contaminated

Neatly stack cribbing at the closest WLA.



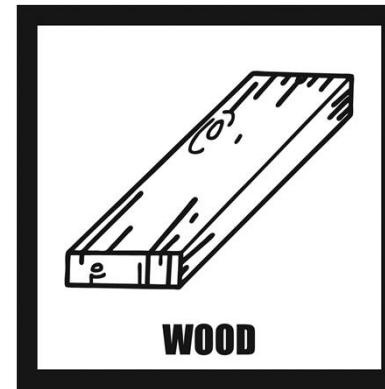
Wood – Cable Reels

Cable reels must be returned to the vendor or we are charged.

- 24" reel - \$55
- 30" reel - \$80
- 36" reel - \$165
- 40" reel - \$250
- 48" reel - \$350
- 54" reel - \$425
- 60" reel - \$650
- 69" reel - \$830
- 78" reel - \$1200

Current balance owing to Anixter is almost \$63k.

Bring empty cable reels to closest WLA.



General Recyclables

- Low quality paper
- Tin Cans
- Pop Cans
- News Print
- Magazines
- Boxboard (tissue boxes, food boxes, rolls)

Empty all containers.

Rinse and hand crush when possible.

If rinsing is not an option, wipe clean with a paper towel. Recycle the container and dispose of the paper towel in General Waste.

For tin cans, if the lid is still attached to the can, tuck the lid inside the can. If the lid is detached, put the detached lid into the can and squeeze the can to trap the lid.

Boxboards are the typical tissue or cracker boxes. They do not belong in a Cardboard bin.

Take out coffee cup **sleeves** are to be placed in General Recyclables bins.

To offset costs of recycling, use the SLAM Dunk additional segregation bins. Ensure you use proper segregation!



Hazardous

Hazardous waste requires special handling to keep people and the environment safe.

Different types of Hazardous Waste must be kept separate.

Use **metal** covered drums or pails for spontaneously combustible waste (ex. oily waste.)

Use a separate labeled container for each type of contaminate as well as waste type. (Ex. Oily rags, oily absorbent and grease tubes must all be packaged in separate containers as the final disposal requires different treatment.)

An additional presentation is available for proper handling of common hazardous waste.

- Batteries
- E-waste
- Lamps
- Ink cartridges
- Cylinders
- Solvents
- Asbestos
- PCBs
- Oil/Grease
- Fuels
- Antifreeze
- Aerosol cans
- Resins
- Grit
- Chemicals & their containers
- Cement
- Flyash
- Domestic cleaning products
- Adhesives
- Oil-water mixtures
- Refrigerants
- Contaminated waste

General Waste

- Coffee cups (lids & sleeves are recyclable)
- Used paper towel (non oily)
- Tissues
- Laminated paper
- Bubble wrap envelopes
- VHS tapes
- CDs
- Writing utensils
- Fibreglass
- Ear plugs
- Respirator cartridges
- Lanyards & belts
- Rope
- Gloves
- Leather boots
- Fabric & clothing
- Styrofoam
- Waxy paper

Non-contaminated items only.



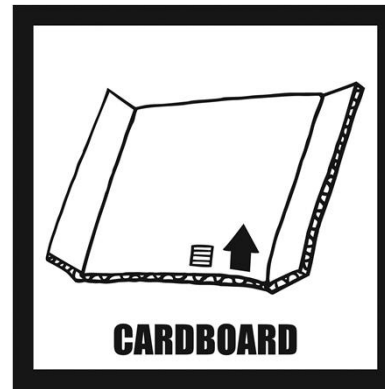
Cardboard

- Corrugated cardboard

Look for the wavy corrugated layer.

Boxboard does not go into this waste stream.

Empty, dismantle and flatten all boxes.



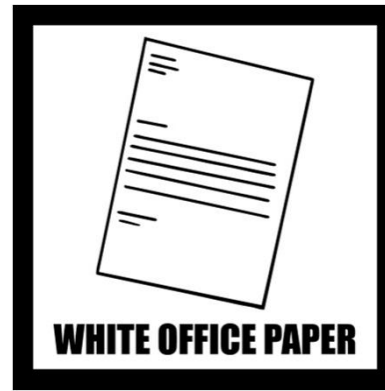
Office Paper

- Good quality office paper
- Drawings
- Paper only manuals
- Shredded paper

Shred confidential paper.

Contain shredded paper in clear plastic bag.

Keep paper flat, do not crumple.



Non-Industrial Plastics

- Bottles
- Cups
- Take out coffee lids
- Food containers
- Sheets
- Packaging
- Strapping
- Bags
- Safety glasses

Empty as much as possible.

Rinse and hand crush when possible.

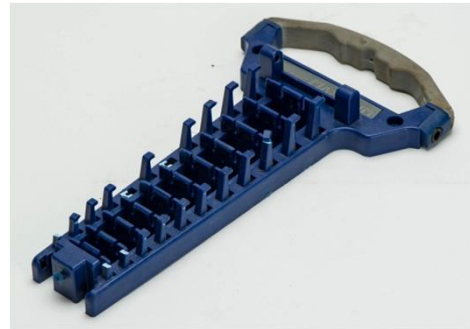
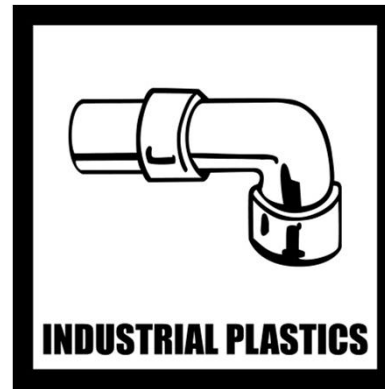
If rinsing is not an option, wipe clean with a paper towel. Recycle the container and dispose of the paper towel in General Waste.



Industrial Plastics

- Hard plastics
- PVC pipe
- GRP valves
- Hard hats
- Hard hat liners

Non-contaminated only



Rubber

- Conveyor belting
- Hoses
- Tubes
- Liners
- Tires
- Skirting
- Scrapers
- Gaskets
- Linatex
- Rubber boots

Non-contaminated only



Contaminated

- Chemical contamination
- Nickel dust contamination
- Electrolyte contamination
- Oil/grease contamination

Contaminated waste must be kept separate from other waste.

Keep waste contained.

Label container.

Secure lid to container and bring to closest WLA.



Segregation Tools

In order to help everyone make the right choice, we need to be given the right tools.

Bins are available in various styles.

Waste streams are identified by colour, symbol and name.



Vale bins

Wheelie – Waste Watcher – Billi Box – Multi Recycler



Tervita Type 1

Correction Notices

When bins are found to contain mixed waste, a Correction Notice will be issued.

They are to be used as a learning tool.

The Notices will indicate the bin type, the mixed waste type and how to properly handle the waste.

Anyone who sees the Notice is expected to properly sort the waste and hand in the Notice to their supervisor.



Requirements

Rules for handling waste

- Each waste stream must be kept separate.
- Recyclable waste should be emptied, rinsed clean and hand crushed when possible.
- **Everyone** is accountable to properly segregate waste and empty bins.
- Do not accumulate waste at your plant. Properly segregate and contain waste, place it at the closest WLA and it will be taken away.

SLAM Dunk and SafeProduction

If we follow SafeProduction, it makes it really easy.

Plan to place the waste in the right bin by learning what goes where and having the right bins accessible.

Accept that proper segregation is the right thing to do.

Care for everyone that may come into contact with the waste in each stream, for the environment, and for the business by allowing us to create resources out of some waste streams.

Lead by making the right choices and helping others do the same.