



SLAM Dunk Program

Proper Handling of Common Hazardous Waste – 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.

Use of Drums

The intent is to have most of the packaging of waste done by the plants. The plants are being asked to separate the waste and package waste that must be sent south for final disposal so that once the container is full, it can be shipped out without re-packing. This will make the process safer and more efficient.

Some waste types require TDG (Transportation of Dangerous Goods) approved drums for transport, which have to be purchased.

Other waste types can reuse drums at no additional cost. An agreement with Tervita returns these drums from Winnipeg until they are no longer reusable.

All drums to be used for waste may be ordered by supervisors or Material Coordinators through the SLAM Dunk program using the Request for Additional Bins form. The type of waste to be contained should be listed in the notes section so the correct drum is provided. If a new drum is required, you will be instructed to submit a requisition for the new drum.

Full drums must be labeled, secured and sent to the closest WLA.

When more than one drum is full, secure up to four drums to a pallet.

Open top drum
with secured bolt
ring



Closed top drum
with sealed lid



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.)

- 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

Batteries - Small

- Alkaline (AA, AAA, 9V, C, D, etc)
- Rechargeable
 - Nickel Cadmium (Ni-Cd)
 - Nickel Metal Hydride (Ni-MH)
 - Lithium Ion (Li-Ion)
 - Nickel Zinc (Ni-Zn)
 - Small Sealed Lead Acid (SSLA/Pb)
- Lithium Primary (button)

Dry cell batteries ONLY, weighing 5 kg each or less.

Bag Li-Ion, SSLA/Pb and Lithium Primary batteries. For big batteries of these types, or if no bag is available, cover terminals with electrical tape.

Bag broken or leaking batteries.

Deposit into plastic container sized as per the area generation rate.

For final disposal, bring to closest WLA and prepare or request replacement container.



Alkaline:
Typical household type



Nickel Cadmium:
Cordless power tools,
cordless phones, 2-way
radios, digital cameras



Nickel Metal Hydride:
Cordless power tools,
cellphones, 2-way radios,
digital cameras



Lithium Ion:
Cellphone, laptops,
cordless phones,
digital cameras



Nickel Zinc:
Digital cameras,
wireless keyboards,
small electronics



Small Sealed Lead Acid:
UPS, emergency lighting



Lithium Primary:
Button type

Batteries - Large

- Wet cell batteries

Broken batteries are to be placed into a suitably sized lidded plastic container and labeled "Broken Battery".

For single or small quantity automotive batteries, place in closest MWB or secure to a pallet at WLA.

For large quantity automotive batteries, stack onto a pallet two layers high. Separate layers with cardboard (to provide some electrical isolation). Wrap entire pallet with shrink wrap.

For underground only, use plastic lined battery boxes. Limit box to two layers of batteries. Separate layers with cardboard. Do not overfill box. Do not wedge batteries into box. Boxes will be reused only if batteries can be safely removed from the box and repackaged. Overfilled boxes will have to be replaced at the plant's cost.

For large steel case batteries, secure unit to a pallet.

For final disposal, bring to closest WLA.



E-Waste

- Electronic circuit boards
- Computers and accessories
- Printers, scanners, fax machines
- Telephones
- Televisions
- Power adapters
- Microwaves & appliances
- Testers
- Electrical devices.

Ensure electrical devices do not contain mercury, asbestos or PCB.

Remove all paper and ink cartridges from applicable devices.

All HP computer components MUST be RETURNED to the IT Department.

Other computer components that no longer function must be cleared through IT prior to disposal.

Place in closest MWB at WLA.



Lamps

- Fluorescent 4'
- Fluorescent 8'
- CFL
- HID
- Incandescent

For fluorescent tubes, whenever possible, reuse cardboard boxes the new tubes came in. New boxes can be ordered through SLAM Dunk.

Seal full boxes.

For bulbs, small plastic containers sized to the area generation rate can be ordered through SLAM Dunk.

Incandescent lamps and CFLs can be placed in the same container.

Sodium, halogen and mercury vapour lamps can be placed in the same container.

Bring full boxes and containers to closest WLA.



Ink Cartridges

- Printer or fax machine cartridges
- Toner cartridges
- Ink jet cartridges

Bring waste ink cartridge in their original container including plastic bag, to the closest MWB at the WLA on the morning of the regular scheduled collection service.



Compressed Gas Cylinders

- Propane
- Stench
- Wintergreen
- Anti-Stench
- CO
- NO2
- Refrigerant tank
- SCBA tank
- Fire extinguisher

Ensure valve is intact and fully closed.

Ensure content of cylinder is clearly marked by adding the content name to the Vale SHE label.

SCBA tanks and fire extinguishers are only to be disposed of through the Fire Hall.

For large cylinders, secure to pallet and bring pallet to closest WLA.

For small cylinders, place in closest MWB at WLA.

WASTE COMPRESSED GAS CYLINDERS

MANUFACTURER	
VALE CANADA LIMITED	
HAZARD SYMBOL	SAFE HANDLING PROCEDURES
	<p>Do not breathe dust, fume or mist generated by handling or using this product. Use with adequate ventilation. Avoid contact with eyes and skin. Gloves, safety glasses with side shields, long sleeves and chemical resistant gloves must be worn. Keep container closed. Handle and open containers with care. Containers are under pressure. Store in a cool, well-ventilated area away from incompatible materials. Do not store near an open flame, heat or other sources of ignition. Protect material from direct sunlight. Materials will accumulate static charges that may cause an electrical spark (ignition source). Use proper grounding procedures.</p> <p>FOR FURTHER INFORMATION REFER TO MSDS</p> <p>DEPARTMENT OF ORIGIN: AREA: LOCATION:</p>
VALE CANADA LIMITED	MSDS AVAILABLE



Acetone/Solvents/Varsol



All solvents and other flammable liquids are to be kept separate from each other.

Whenever possible, reuse the original container for these waste liquids. When the original container is not available use a suitable small metal container.

Label container.

Place sealed containers in the closest MWB at a WLA.

Empty containers are to be brought to the closest MWB at a WLA. Do not accumulate empty containers, bring them to the WLA for immediate collection.

WASTE SOLVENT	
MANUFACTURER VALE CANADA LIMITED	
HAZARD SYMBOL	SAFE HANDLING PROCEDURES
 	<p>Store in a dry, ventilated area. Do not handle or store near open flame, sources of ignition, or sources of heat. Keep container closed. Keep away from all sources of ignition. Containers should be grounded and bonded when transferring liquid content. In case of insufficient ventilation wear suitable respiratory equipment. Avoid contact with eyes, skin and clothing. Wear safety glasses with side shields, impervious gloves and suitable protective clothing when handling. Wash thoroughly after handling.</p> <p>FOR FURTHER INFORMATION REFER TO MSDS.</p> <p>DEPARTMENT OF ORIGIN: AREA: LOCATION:</p>
VALE CANADA LIMITED	MSDS AVAILABLE

WASTE ACETONE	
MANUFACTURER VALE CANADA LIMITED	
HAZARD SYMBOL	SAFE HANDLING PROCEDURES
 	<p>Avoid contact with skin and eyes. Do not breathe mist, generated by handling or using this product. Wear goggles, face protection and protective gloves when handling. In case of insufficient ventilation, wear suitable respiratory equipment. Keep container closed.</p> <p>FOR FURTHER INFORMATION REFER TO MSDS.</p> <p>DEPARTMENT OF ORIGIN: AREA: LOCATION:</p>
Vale Canada Limited	MSDS AVAILABLE

WASTE VARSOL	
MANUFACTURER VALE CANADA LIMITED	
HAZARD SYMBOL	HANDLING PROCEDURES
 	<p>Keep container closed. Store in a cool, dry place with adequate ventilation. Do not handle or store near open flame, sources of ignition, or sources of heat. Do not store near acids. Containers should be grounded and bonded when transferring liquid content. Avoid contact with eyes and skin. Wear safety glasses with side shields, impervious gloves and suitable protective clothing when handling. In case of insufficient ventilation, wear suitable respiratory protection. Wash thoroughly after handling.</p> <p>FOR FURTHER INFORMATION REFER TO MSDS.</p> <p>DEPARTMENT OF ORIGIN: AREA: LOCATION:</p>
VALE CANADA LIMITED	MSDS AVAILABLE

Asbestos



Follow SPI36-5 Asbestos Abatement & Management Program for proper handling and collection.

STANDARD PROCEDURE INSTRUCTION

Title		SPI
Asbestos Abatement & Management Program		# 36-5
Department	Supersedes SPI Dated	Effective Date
Safety, Health & Environment	August 1, 2004	July 1, 2012

Asbestos Abatement & Management Program



PCBs

Follow SPI34-4 Management of PCBs for proper handling and collection.



STANDARD PROCEDURE INSTRUCTION

Title		SPI #34-4
Management of Polychlorinated Biphenyls (PCBs)		
Department	Supersedes SPI Dated	Effective Date
Environment, Health and Safety	September 2004	March 13, 2007

Oil

- Used oil

Pour/pump into metal closed top drum or cube, free from other waste.

Label container.

Ensure container is sealed.

Bring full labeled drums and cubes to closest WLA.

Used oil may be contained in reused drums because we pump the oil from the drums or cubes into large storage tanks before it is shipped out.

HAZARD SYMBOL		SAFE HANDLING PROCEDURES
 		Do not breathe dust, fume 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 store near acids. Do not handle or store near open flame, sources of ignition, or sources of heat. Wash thoroughly after handling.
		FOR FURTHER INFORMATION REFER TO MSDS
DEPARTMENT OF ORIGIN:		
AREA:		
LOCATION:		

VALE CANADA LIMITED MSDS AVAILABLE



Grease

- Used grease

Place into metal covered container separate from other waste.



Label container.

Used grease may be contained in reused open top 200L metal drums or the 55KG metal drums the grease came in may be reused.

Seal and bring full labeled drums to closest WLA.

WASTE GREASE

MANUFACTURER
VALE CANADA LIMITED

HAZARD SYMBOL	SAFE HANDLING PROCEDURES
 	<p>Store in a cool, dry, ventilated area. In case of insufficient ventilation, wear suitable respiratory protection. Do not handle or store near open flame, sources of heat, or sources of ignition. Use with adequate ventilation. Keep container closed. Container should be grounded and bonded when transferring liquid content. Avoid contact with eyes and skin. Wear eye protection, gloves and protective clothing when handling. Wash thoroughly after handling.</p> <p>FOR FURTHER INFORMATION REFER TO MSDS</p> <p>DEPARTMENT OF ORIGIN: AREA: LOCATION:</p>

VALE CANADA LIMITED MSDS AVAILABLE



Greasy or Oily Rags

- Greasy or oily rags
- Greasy or oily cardboard
- Greasy or oily paper
- Greasy or oily wood pieces

Place into metal covered container separate from other waste.

Label container.

Reused open top 200L metal drums are acceptable.

Seal and bring full labeled drums to closest WLA.

OIL/GREASE CONTAMINATED FIBROUS WASTE
RAGS, PAPER, CARDBOARD

MANUFACTURER
VALE CANADA LIMITED

HAZARD
SYMBOL



SAFE HANDLING PROCEDURES

Do not breathe dust, fume 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 store near acids. Do not handle or store near open flame, sources of ignition, or sources of heat. Wash thoroughly after handling.

FOR FURTHER INFORMATION REFER TO MSDS.

DEPARTMENT OF ORIGIN:

AREA:

LOCATION:

VALE CANADA LIMITED

MSDS AVAILABLE



Greasy or Oily Absorbent


- Greasy or oily Absorbball
- Greasy or oily sand
- Greasy or oily soil

Place into metal covered container separate from other waste.

Label container.

Reused open top 200L metal drums are acceptable.

Seal and bring full labeled drums to closest WLA.

OIL/GREASE CONTAMINATED GRANULAR WASTE ABSORBALL, ZORBALL, FLOOR DRY, SAND, SOIL	
MANUFACTURER VALE CANADA LIMITED	
HAZARD SYMBOL	SAFE HANDLING PROCEDURES
	<p>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> <p>FOR FURTHER INFORMATION REFER TO MSDS.</p> <p>DEPARTMENT OF ORIGIN: AREA: LOCATION:</p>
VALE CANADA LIMITED	MSDS AVAILABLE



Oil Filters

- Used oil filters

Place into metal covered container separate from other waste.


Label container.

Reused open top 200L metal drums are acceptable.

Seal and bring full labeled drums to closest WLA.

WASTE OIL FILTERS

MANUFACTURER
VALE CANADA LIMITED

HAZARD SYMBOL	SAFE HANDLING PROCEDURES
	<p>Do not breathe dust, fumes or mists generated by handling or using this product. Use with adequate ventilation. Avoid contact with eyes and skin. Do not store near acids.</p> <p style="text-align: center;">FOR FURTHER INFORMATION REFER TO MSDS</p> <p>DEPARTMENT OF ORIGIN: AREA: LOCATION:</p>

VALE CANADA LIMITED MSDS AVAILABLE



Oil Pails

- Used oil pails

Drain pails to reduce residual oil to an **absolute minimum**.

Stack pails with the top pail lidded.

Place lids in clear plastic bags that can be ordered through SLAM Dunk.

Repurposing of plastic totes make handling easier. Label totes with information label.

For final disposal, bring bags, stacks or full totes to closest WLA.

USED OIL PAILS



- Drain well.
- Stack pails with the top pail lidded.
- Place lids in clear plastic bags.
- Repurpose plastic totes in high generation areas.



DRAIN WELL



Grease Tubes

- Used grease tubes/cartridges

Place into metal covered container separate from other waste.

Label container.

Reused open top 200L metal drums are acceptable.

Seal and bring full labeled drums to closest WLA.

WASTE EMPTY GREASE TUBES

MANUFACTURER VALE CANADA LIMITED	
HAZARD SYMBOL	SAFE HANDLING PROCEDURES
	Keep container tightly closed. 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 store near acids or bases. Do not handle or store near open flame, sources of ignition, or sources of heat. Wash thoroughly after handling.
FOR FURTHER INFORMATION REFER TO MSDS.	
DEPARTMENT OF ORIGIN: AREA: LOCATION:	
VALE CANADA LIMITED	MSDS AVAILABLE



Greasy or Oily Hoses

- Hydraulic hose
- Grease hose

Ensure hoses are thoroughly drained.

Place into metal covered container separate from other waste.

Label container.

Reused open top 200L metal drums are acceptable or TDG bags.

Seal and bring full labeled drums to closest WLA.



OIL/GREASE CONTAMINATED HOSES

MANUFACTURER
VALE CANADA LIMITED

HAZARD SYMBOL	SAFE HANDLING PROCEDURES
	Store in a cool, dry, well-ventilated area. Avoid contact with eyes and skin. Wear eye protection, impervious gloves and protective clothing when handling. Do not store near acids. Do not handle or store near open flame, sources of ignition, or sources of heat. Wash thoroughly after handling.
	FOR FURTHER INFORMATION REFER TO MSDS.
	DEPARTMENT OF ORIGIN: AREA: LOCATION:

VALE CANADA LIMITED MSDS AVAILABLE



Grease Pails

- Used grease pails

Reuse grease pails whenever possible to contain used grease.

Scrape pails to remove all residual grease.

Remove plastic liner and place in reused open top 200L metal drum. Use SHE Waste Grease label and add “Liners”.

For final disposal, place empty unlined pails in Scrap Metal bin. Bring full drum of plastic liners to closest WLA.

LINERS WASTE GREASE

MANUFACTURER

VALE CANADA LIMITED

HAZARD
SYMBOL



SAFE HANDLING PROCEDURES

Store in a cool, dry, ventilated area. In case of insufficient ventilation, wear suitable respiratory protection. Do not handle or store near open flame, sources of heat, or sources of ignition. Use with adequate ventilation. Keep container closed. Container should be grounded and bonded when transferring liquid content. Avoid contact with eyes and skin. Wear eye protection, gloves and protective clothing when handling. Wash thoroughly after handling.

FOR FURTHER INFORMATION REFER TO MSDS

DEPARTMENT OF ORIGIN:

AREA:

LOCATION:

VALE CANADA LIMITED

MSDS AVAILABLE

Diesel

- Waste diesel


Pour/pump into metal closed top 200L drum, free from other waste.

Label container.

Ensure container is sealed.

Bring full drums to closest WLA.

TDG approved drums are required at a cost to the plants.

WASTE DIESEL FUEL	
MANUFACTURER	
VALE CANADA LIMITED	
HAZARD SYMBOL	SAFE HANDLING PROCEDURES
	Avoid contact with skin and eyes. Do not breathe mist, generated by handling or using this product. Wear goggles, face protection and protective gloves when handling. In case of insufficient ventilation, wear suitable respiratory equipment. Keep container closed.
	FOR FURTHER INFORMATION REFER TO MSDS
	DEPARTMENT OF ORIGIN:
	AREA:
	LOCATION:
Vale Canada Limited	MSDS AVAILABLE



Diesel - Contaminated

- H2S contaminated diesel


Pour/pump into metal closed top 200L drum, free from other waste.

Label container.

Ensure container is sealed.

Submit Request for Special Pick-Up form.

TDG approved drums are required at a cost to the plants.

CONTAMINATED DIESEL FUEL	
MANUFACTURER VALE CANADA LIMITED	
HAZARD SYMBOL	SAFE HANDLING PROCEDURES
	Avoid contact with skin and eyes. Do not breathe mist, generated by handling or using this product. Wear goggles, face protection and protective gloves when handling. In case of insufficient ventilation, wear suitable respiratory equipment. Keep container closed. Do not handle or store near open flame, sources of heat, or sources of ignition.
	
	FOR FURTHER INFORMATION REFER TO MSDS
	DEPARTMENT OF ORIGIN: AREA: LOCATION:
Vale Canada Limited	MSDS AVAILABLE



Antifreeze/Glycol

- Used antifreeze
- Used glycol

Pour/pump into **TDG approved** metal closed top drum, free from other waste.

Label container.

Bring full drums to closest WLA.

WASTE GLYCOL / ANTIFREEZE	
MANUFACTURER VALE CANADA LIMITED	
HAZARD SYMBOL	SAFE HANDLING PROCEDURES
 	<p>Do not drink product or solution. Do not breathe dust, fume or mist generated by handling or using this product. Keep container closed. Use with adequate ventilation. Avoid contact with eyes and skin. Avoid prolonged or repeated breathing of aerosol and vapour. Do not store near acids. Wear eye protection, gloves and protective clothing when handling. Wash thoroughly after handling.</p> <p>FOR FURTHER INFORMATION REFER TO MSDS</p> <p>DEPARTMENT OF ORIGIN: AREA: LOCATION:</p>
VALE CANADA LIMITED	MSDS AVAILABLE



Aerosol Cans

- Waste aerosol cans
- Splatter paint
- Canned air
- Brake clean
- Penetrating oil
- Window cleaner
- Waste aerosol cans

Place into metal covered container separate from other waste.

Label container.

For final disposal, use **TDG approved** open top 200L metal drums.

Seal lid and remove one bung to prevent drum pressurization.

Bring full labeled drums to closest WLA.

For small quantity generation, place in closest MWB.

WASTE AEROSOL CANS

MANUFACTURER

VALE CANADA LIMITED

HAZARD
SYMBOL

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. Gloves, safety glasses with side shields, long sleeves and chemical resistant gloves must be worn. Keep container closed. Handle and open containers with care. Containers are under pressure. Store in a cool, well-ventilated area away from incompatible materials. Do not store near an open flame, heat or other sources of ignition. Protect material from direct sunlight. Materials will accumulate static charges that may cause an electrical spark (ignition source). Use proper grounding procedures.

FOR FURTHER INFORMATION REFER TO MSDS

DEPARTMENT OF ORIGIN:

AREA:

LOCATION:

Vale Canada Limited

MSDS AVAILABLE



Resins

- Faulty/expired/damaged rebar resin
- Faulty/expired/damaged rockbolt resin
- Faulty/expired/damaged Hilti resin
- J-Lock
- FRP


Place into **TDG approved** metal open top drum, free from other waste.

For small quantities, a 20L approved pail may be used.

In the event that a large quantity of resin is faulty (say a full pallet), then the entire quantity may be secured to a pallet.

Label container.

Bring full pails, drums or pallets to closest WLA.

WASTE RESIN	
MANUFACTURER VALE CANADA LIMITED	
HAZARD SYMBOL	SAFE HANDLING PROCEDURES
 	Do not breathe dust, fume 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 store near acids. Do not handle or store near open flame, sources of ignition, or sources of heat. Wash thoroughly after handling.
FOR FURTHER INFORMATION REFER TO MSDS.	
DEPARTMENT OF ORIGIN: AREA: LOCATION:	
VALE CANADA LIMITED	MSDS AVAILABLE



Correction Notices

If a mishandled hazardous waste is found, a picture will be sent to the WLA supervision. The WMFO is available to assist, however proper handling is expected by all.

Requirements

Rules for handling waste

- Each waste stream must be kept separate.
- Hazardous waste must be handled the right way and kept out of all other waste streams.
- **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.