

Yellow Ink Room

Hazardous Waste Chapter Addendums

Appendix Contents:

YI – 1	Waste Inventory Sheets
YI – 2	List of Toxic Hazardous Wastes
YI – 3	Different ID Numbers Facilities Must Have
YI – 4	DNR Waste Fact Sheets
YI – 5	SQG and LQG Contingency Plan Requirements
YI – 6	Waste Storage and Accumulation Diagram
YI – 7	Waste Signs

Instructions

These instructions will help you inventory and categorize your wastes on your Waste Inventory Sheets. For your use, print out all of the tables that follow. (You may need to make extra copies of the Waste Inventory Sheets, depending on how many wastes you have.) When conducting a waste inventory at your business, please consider **all** your current and expected wastes. Include each waste whether or not it is:

- normally generated on a recurring basis,
- hazardous or non-hazardous
- being recycled or disposed (materials being reused are optional)

Three different Waste Inventory Sheets are provided:

- 1) recurring materials;
- 2) unused materials; and
- 3) unknown materials

The first step is to walk through your facility and write the name of each waste on the Waste Inventory Sheets. To help you get started, see instructions below for each Waste Inventory Sheet. During your walk through, fill in as much information as possible for each waste. The Small Business Web Pages will help you check and complete the information, especially “type of waste”, options for “final disposal method”, and “other information” regarding the wastes at your facility. You may also want to update the information based on future decisions you make (e.g. substituting materials, selecting different disposal methods, or changing how you store wastes).

Your suppliers should provide a material safety data sheet (MSDS) for each chemical and most other materials used in your business. The MSDS describes hazards of the material and will be helpful in determining how to categorize and manage wastes generated from the chemicals and materials in each production process. Only individuals trained in the hazards and necessary precautions should open the container or take a sample. If you are missing an MSDS, request it from your supplier or the manufacturer.

1) Recurring Materials

Include each waste that you normally have on a recurring basis, such as the following:

- office paper, cardboard, and plastic, metal and glass food and beverage containers;
- food wastes from cafeteria or break room operations;
- used engine oil, anti-freeze, batteries, and similar wastes generated from fork lifts, cars and trucks;
- wastes associated with heating and air conditioning systems, and building maintenance;
- material left-overs and cut-offs from production and packaging; and
- used process chemicals, sludges from process tank clean-outs, and other wastes generated from production processes.

2) Unused Materials

Include each unused chemical or other unused material you may have that is no longer needed or usable at your business. The material may be unusable to you for any of the following reasons:

- expired shelf life;
- off specification for the process it was intended for;
- no longer needed due to production process changes – resulting from a change in business products or material substitution.

In many cases, these unused materials can still be used, or recycled into a new product. Contact the product supplier or manufacturer to see if they can take back the unused material. Contact other businesses that may continue a process you have changed. When negotiating a price you may receive for the material, or an amount you may pay to get rid of it, consider both the value of the material as a product and how much it will cost you to dispose of it as a waste.

3) Unknown Materials

Include anything you may have at your facility that you are not sure what it is, such as an unlabeled barrel or other unlabeled container. Containers should be examined, opened and sampled by a qualified individual.

- Open metal containers only with non-sparking tools, in case contents are flammable. Don't smell unknown chemicals, and take precautions to prevent contact with eyes and skin.
- If the container is in poor condition, or damaged in any way, seek expert advice before moving or touching the container. A barrel with the top or sides pushed out, for example, may indicate the contents are under pressure, and opening it could be dangerous.
- If the container is not in good condition, make plans to put the original container into another larger (over-pack) container. Again, get expert advice first.

Be sure to record pertinent information you can find out about the material, such as:

- a description of the container and where it is located;
- former use of the material and who may have further information.

It is recommended to assign a number and place a label on the container. The word "caution" can also be included on the label, and the name of the person that should be contacted if the container needs to be moved. For example, the first unknown material would be labeled: "Unknown Material #1, CAUTION: Contact J.P. Smith Prior to Moving". Information learned about the unknown material can be added to the label.

For unknown materials, the Small Business Web Pages will probably not be of significant assistance to you in making a waste determination. You will need to contact an environmental laboratory or waste business to have each unknown waste tested and obtain expert advice to help you make the waste determination. Information you can gather about the material may be helpful to minimize testing costs.

Waste Inventory Sheets – Recurring Materials

On Site Information						Off Site Information		Waste Type	Comments
Waste Material	Monthly Quantity	Process / Activity	Dept. / Area	Waste Storage Location	MSDS	Transport	Disposition		
Example: Lead acid vehicle batteries	Approx. 10 batteries	Delivery trucks	Fleet Services	Inside, Fleet Services. Place batteries right side up on a pallet. Do not stack batteries or pallets.	Yes	WeHaul Waste Transport. Call for pick-up when 1 pallet is full of batteries.	Not sure – check with WeHaul.	_ solid X hazardous	Lead acid batteries are exempt from hazardous waste rules if properly recycled. Are batteries being properly maintained for full life? Are other types of batteries available?
Example: Fluorescent lamps	Approx. 50 per year	General lighting fixtures	Through-out building	Inside, Maintenance Shop. Place lamps into emptied new lamp package marked “used”.	No – ask supplier	Ideal Electric. Used lamps returned when box is full & new lamps are delivered.	Not sure – check with Ideal.	_ solid X hazardous	Fluorescent lamps are exempt from hazardous waste rules if properly recycled. 1 lamp contains enough mercury to contaminate a small lake – wow!
Example: Wood chips	Approx. 1/2 tons per year	Tree trimming	Yard areas	Outside, Shipping. Place chips in pile – away from drainage ditch & buildings. Prevent fire (spontaneous combustion) by keeping piles small.	No – not needed	We-Haul Waste Transport. Call for roll-off box delivery when pile gets too big.	Employees & public can pick-up. City park for trail project 2002. Also to City compost site.	X solid _ hazardous	s. NR 500.08(2)(e), Wis. Adm. Code allows unpainted & untreated wood chips to be used for landscaping & trails. Try to eliminate all transportation costs.
								_ solid _ hazardous	
								_ solid _ hazardous	

Waste Inventory Sheets – Recurring Materials

On Site Information						Off Site Information		Waste Type	Comments
Waste Material	Quantity	Process / Activity	Dept. / Area	Waste Storage Location	MSDS	Transport	Disposition		
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	

Waste Inventory Sheets – Unused Materials

On Site Information						Off Site Information		Waste Type	Comments
Waste Material	Quantity	Process / Activity	Dept. / Area	Waste Storage Location	MSDS	Transport	Disposition		
Example: 1,1,1 trichloroethane	(2) 55 gallon steel drums, appear to be full & unopened	Was used for parts cleaning	Degreasing Area	Shipping area. The 2 drums are on a pallet.	Yes	Contact transporter to see if they will transport it back to supplier or to another user.	Contact supplier to see if they will take it back.	_ solid X hazardous Manifest if shipped as a waste.	1,1,1 trichloroethane has been replaced by a non-toxic citrus-based solvent
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	

Waste Inventory Sheets – Unknown Materials

On Site Information						Off Site Information		Waste Type	Comments
Waste Material	Quantity	Process / Activity	Dept. / Area	Waste Storage Location	MSDS	Transport	Disposition		
Example: Unknown #1. Clear liquid	Approx. ½ gal. in a 1 gal. white plastic jug	Was likely used in Quality Control Lab	Jug from Quality Control Lab was picked up by Maint.	Stored in Maintenance Supervisor's office	Don't know	To be determined	To be determined	_ solid _ hazardous To be determined	Ask Quality Control Lab Supervisor for help in determining what this stuff is.
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	
								_ solid _ hazardous	

YI – 2 List of Toxic Hazardous Wastes

Contaminant	Regulatory level (mg/L)
<u>Metals</u>	
arsenic	5.0
barium	100.0
cadmium	1.0
chromium	5.0
lead	5.0
mercury	0.2
selenium	1.0
silver	5.0
<u>Pesticides</u>	
chlordane	0.03
2,4-D	10.0
endrin	0.02
heptachlor (and its epoxide)	0.008
lindane	0.4
methoxychlor	10.0
toxaphene	0.5
2,4,5-TP (silvex)	1.0
<u>Semi-volatiles</u>	
o-cresol	200.0
m-cresol	200.0
p-cresol	200.0
cresol	200.0
1,4-dichlorobenzene	7.5
2,4-dinitrotoluene	0.13
hexachlorobenzene	0.13
hexachlorobutadiene	0.5
hexachloroethane	3.0
nitrobenzene	2.0
pentachlorophenol	100.0
pyridine	5.0
2,4,5-trichlorophenol	400.0
2,4,6-trichlorophenol	2.0
<u>Volatiles</u>	
benzene	0.5
carbon tetrachloride	0.5
chlorobenzene	100.0
chloroform	6.0
1,2-dichloroethane	0.5
1,1-dichloroethylene	0.7
methyl ethyl ketone	200.0
tetrachloroethylene	0.7
trichloroethylene	0.5
vinyl chloride	

I. How do I get an EPA ID number?

To get your EPA ID number you must complete an EPA “Notification of Regulated Waste Activity” form. These forms are available from your regional DNR waste management contact. The notification form includes detailed instructions. Be aware of the following:

- List your business’s full name first, then any appropriate division or section
- Your location address is the actual physical location of the hazardous waste or used oil.
- Your mailing address can be either a post office box number or your location address
- In the ownership section, note your company’s legal owner
- In section VIII, mark all appropriate boxes

In section IX, fill in the correct hazardous waste codes. Three hazard waste code areas exist. Each refers to a different type of hazardous waste.

II. What is the difference between the Wisconsin Facility Identification Number (FID) and the EPA ID number?

All facilities in Wisconsin are required to have a FID number. The number is utilized as a tracking tool and is issued to companies when they are required to interact with the Department of Natural Resources.

EPA IDs are 12 digit numbers issued to companies who are required to manifest their hazardous waste or used oil. EPA IDs function like social security numbers, to help regulatory agencies keep track of these waste streams. If you are a SQG or LQG you must contact the DNR to obtain an EPA “Notification of Regulated Waste Activity” form

YI – 4

DNR Waste Fact Sheet:

Fact sheet Name _____ Fact Sheet # _____ Web Link

Hazardous Waste Training Records WA-099

http://dnr.wi.gov/org/aw/wm/publications/hazard/wa_099.pdf

A copy follows this page.



PREVENTION

MANAGEMENT

Hazardous Waste Training Records

Wisconsin Department of Natural Resources • Waste Management Program • PUBL-WA-099 98

P.O. Box 7921 • Madison WI • 53707-7921 • 608/266-2111

Training employees to safely handle hazardous waste is essential to safe hazardous waste management.

Generators. Anyone generating 100 kilograms (220 lbs.) or more of hazardous waste per month, or accumulating 1,000 kilograms (2,205 lbs.) at any time, must train all employees to properly handle hazardous waste. Employees must also know how to handle emergencies.

Treatment, Storage and Disposal Facilities (TSDs). All licensed treatment, storage and disposal facilities must train all employees how to properly handle hazardous waste and respond to emergencies.

Training

Either classroom or on-the-job training meet DNR's hazardous waste training requirements. However, it is important that your employee training include waste handling and emergency procedures appropriate to each employee's job. Examples of training topics include

- ◆ responding to emergencies and implementing contingency plans
- ◆ handling empties and leaks
- ◆ labeling, marking and placarding
- ◆ waste handling, collecting, segregating and accumulating

Keeping Track

All generators except very small quantity generators and SOGs that accumulate less than 1,000 kilograms (2,205 lbs.) must keep written training records. There is no formal training record form. Make up your own or use a blank piece of paper, but make sure to include the following:

- ◆ your EPA ID number
- ◆ employee name, starting date, job title and job description
- ◆ date and areas employee was trained in
- ◆ training renewal date

*Quality Natural Resources Management
Through Excellent Customer Service*

Make sure to keep all training records on file for at least three years.

Small Business, Inc. EPA #WID123456789		
HAZARDOUS WASTE PERSONNEL TRAINING RECORD		
1. Employee Name:	<u>Marla Maintenance</u>	
2. Employee Starting Date:	<u>4/12/82</u>	
3. Job Title:	<u>Maintenance Supervisor</u>	
4. Job Description:	<u>Oversee entire maintenance staff, participate with plant safety committee</u>	
5. Training Topics	Date/Instructor	
Contingency Plan Familiarization	<u>1/17/95</u>	<u>S. Supervisor</u>
Empties, Leaks & Emergency Response	<u>4/19/95</u>	<u>T. Trainer</u>
Labeling, Marking & Placarding	<u>4/19/95</u>	<u>T. Trainer</u>
Shipping Papers/Manifests	<u>4/19/95</u>	<u>T. Trainer</u>
Waste Handling	<u>4/20/95</u>	<u>T. Trainer</u>
Collection	<u>4/20/95</u>	<u>T. Trainer</u>
Segregation	<u>4/20/95</u>	<u>T. Trainer</u>
Accumulation	<u>4/20/95</u>	<u>T. Trainer</u>
6. Annual Review		
<u>Waste handling review</u>	<u>5/30/95</u>	<u>T. T.</u>
<u>contingency plan</u>	<u>5/30/95</u>	<u>T. T.</u>
<u>new regulations</u>	<u>1/2/96</u>	<u>S.S.</u>
<u>contingency plan & waste handling</u>	<u>6/2/96</u>	<u>S.S.</u>

Questions?

Call your DNR Regional waste management program (see attached map) if you have additional questions or consult the NR 600 series, Wisconsin Administrative Code. You may also want to check on DNR's web site at <http://www.dnr.state.wi.us> or contact your regional waste management program or DNR's Bureau of Cooperative Environmental Assistance at 608/267-9700 for a list of other publications that might be of interest. Copies of Wisconsin statutes and administrative rules can be purchased from Wisconsin Department of Administration, Document Sales and Distribution, P.O. Box 7840, Madison, WI 53707-7840 or call 608/266-3358. Wisconsin State statutes and some administrative rules are also on the Revisor of Statutes Bureau's world wide web site: <http://www.legis.state.wi.us/rsb/stats.html>.

Disclaimer: *This fact sheet is not intended as a substitute for the statutes and rules that apply. Rather, it is a brief summary of the topic. Please consult Wisconsin's statutes and administrative rules for detailed information.*

Note: DNR provides equal opportunity in employment, programs, services and functions under an Affirmative Action Plan. This document is available in alternative format upon request. Call the Bureau of Waste Management at 608/266-2111 for information about alternative formats.

Source: lap/wa099.doc



YI – 5 SQG and LQG Contingency Plan Requirements

Preparedness and Prevention

The following is a checklist SQG and LQG can use to ensure they are prepared for emergencies.

1. Does the generator have ALL of the following equipment, unless the equipment is not necessary for the types of wastes handled?
 - Device to summon emergency assistance (e.g., telephone, 2 way radio).
 - Internal communications and alarm systems.
 - Portable fire extinguishers.
 - Fire control equipment, including special extinguishing equipment.
 - Spill control equipment.
 - Decontamination equipment (e.g., eyewash, shower).
 - Water at adequate volume and pressure to supply water spray systems.
2. Is all of the above emergency equipment tested and maintained to assure its proper operation in an emergency?
3. Is there immediate access to internal or external alarms or an emergency communication device in hazardous waste handling areas?
4. Has the generator made necessary arrangements with the following emergency organizations?
 - Primary and support roles have been defined if multiple police and fire departments could respond to an emergency.
 - Familiarize police, fire and emergency response teams with the site layout, hazards of the waste handled, places where personnel work, entrances and roads in the site and possible evacuation routes.
 - Agreements with emergency response contractors and equipment suppliers.
 - Familiarize local hospitals with the properties of wastes handled and the potential resulting injuries or illnesses.
5. Is aisle space provided throughout the facility to allow for the unobstructed movement of personnel and all emergency equipment?

Contingency Plan and Emergency Procedures

The following is a checklist for developing the full contingency plan required for LQGs. The SQG list follows this one.

1. Does the generator have a written contingency plan that will be implemented immediately in the event of a fire, explosion or hazardous waste discharge?
2. Has the generator amended a SPCC plan or other emergency plan so it sufficiently incorporates hazardous waste management provisions?
3. Have copies of the contingency plan and all revisions been made available to ALL of the following?
 - Police Fire Hospital Emergency response teams
4. Does the contingency plan need to be amended due to any of the following?
 - Contingency plan failed in an emergency.
 - Change in site design, construction, O&M, or other circumstances which affect emergency response.
 - Emergency coordinators changed.

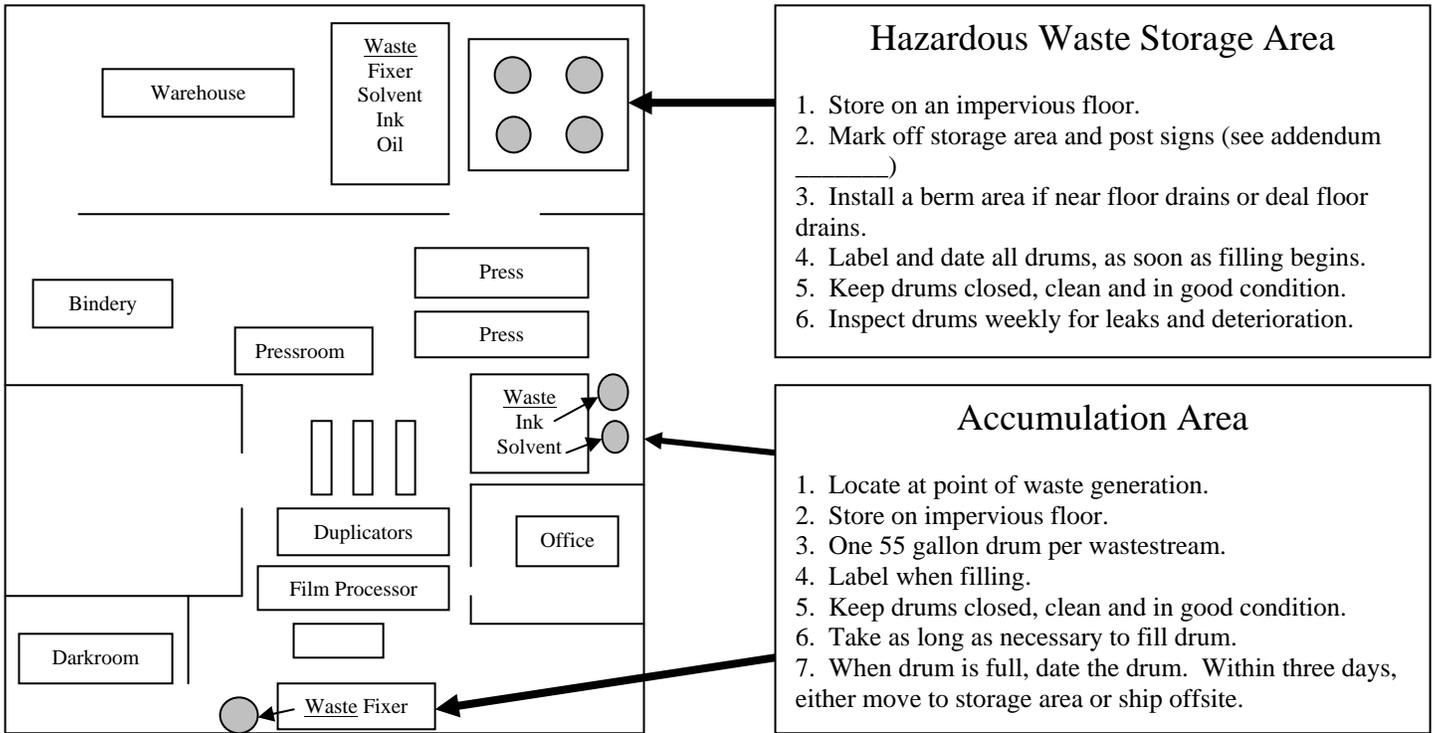
- Emergency equipment changed.
- 5. Does the plan identify an emergency coordinator who meets ALL of the following?
 - Available or on call to coordinate emergency response measures.
 - Familiar with all aspects of site activities and the contingency plan.
 - Has authority to commit the resources needed to carry out the contingency plan.
- 6. Does the contingency plan include ALL of the following?
 - Designation of the primary emergency coordinator, with alternates listed in the order of assuming responsibility.
 - Name, address and phone number, office and home, for each emergency coordinator.
 - Description of the arrangements agreed to by the police, fire, hospitals and emergency response teams to coordinate emergency services.
 - Evacuation plan for personnel including signal(s) to be used in the event of evacuation and alternate routes.
 - Actions facility personnel will take in response to a fire, explosion, or hazardous waste discharge.
 - List of emergency equipment at the site, including location, description and capabilities of each item.
- 7. Does the plan require the emergency coordinator to do ALL of the following in the event of a fire, explosion, or discharge of hazardous wastes?
 - Activate internal alarms or communication systems.
 - Notify appropriate authorities, if their help is needed.
 - Identify the character, source, amount, and extent of discharged hazardous materials.
 - Assess hazards to human health and the environment.
 - If the incident threatens human health or the environment outside the facility, notify local authorities that evacuation may be necessary and notify the national response center (800-424-8802) and the division of emergency government (800-943-0003).
 - Take all reasonable measures necessary to ensure fires, explosions and discharges do not occur, reoccur, or spread.
 - Monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes, or other equipment if the site stops operation.
 - Provide for treating, storing, or disposing of recovered waste, contaminated soil, surface water, or other material.
 - Ensure wastes that are incompatible with the released material are not treated, stored or disposed until cleanup is completed.
 - Ensure that emergency equipment is clean and fit for use prior to resuming operations.
 - Notify the department and appropriate state and local authorities before resuming operations.
 - Submit an incident report to the department within 15 days.

This is the list for SQG.

1. Has a person been identified as an emergency coordinator who is responsible for coordinating all emergency response measures and on the premises or able to reach the site within a short period of time?
2. Is ALL of the following information posted next to the telephone?
 - Name and telephone number of the emergency coordinator.
 - Location of fire extinguishers, spill control material and, if present, fire alarm.
 - Telephone number of the fire department unless the generator has a direct alarm.
3. In the event of an emergency, will the emergency coordinator take the following actions?
 - In the event of a release, telephone the division of emergency management (800-943-0003) and comply with NR 706.

- In the event of a fire, call the fire department or attempt to extinguish the fire, if appropriate.
 - In the event of a spill, contain the flow of hazardous waste to the extent possible and clean up the hazardous waste and contaminated materials or soil.
 - If there is a release that could threaten human health outside the facility or if a spill reaches surface water, immediately notify the national response center (800-424-8802).
4. Are all employees thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal operations and emergencies?

Waste Storage and Accumulation Diagram



YI – 7 *Waste Signs*

Feel free to copy and post these signs as appropriate.

Hazardous Waste Storage Area

Hazardous Waste

Name of Waste _____

Hazard _____

Dirty Solvent Rags