

MANAGING HAZARDOUS WASTE

A HANDBOOK
FOR SMALL BUSINESS



TABLE OF CONTENTS

INTRODUCTION	4
DECIDING WHETHER HAZARDOUS WASTE REGULATIONS APPLY TO YOU	5
Defining Hazardous Waste.....	5
Identifying Your Waste: Typical Hazardous Wastes Generated by Businesses.....	6
What Do You Measure to Determine Your Generator Category?.....	7
How Many Drums Is That?.....	7
Finding Your Generator Category.....	8
OBTAINING AN EPA IDENTIFICATION NUMBER	9
Sample RCRA Subtitle C Site Identification Form.....	10
REQUIREMENTS FOR CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS	12
REQUIREMENTS FOR SMALL QUANTITY GENERATORS	12
Accumulating Your Waste.....	12
Treating Your Waste to Meet the Land Disposal Restrictions (LDRs).....	13
Shipping Hazardous Waste Off-Site.....	14
Selecting a TSDF.....	14
Labeling Waste Shipments.....	14
Selecting a Transporter or TSDF/Recycler.....	14
Preparing Hazardous Waste Manifests.....	14
Land Disposal Restrictions (LDR) Reporting Requirements.....	23
Export Notification.....	23
Waste Minimization: The Key to Better Waste Management.....	23
HAZARDOUS WASTE CODE CHART	16
STEPS TO BASIC HAZARDOUS WASTE MANAGEMENT CHART	20
RESPONDING TO EMERGENCIES	24
Preventing Accidents.....	24
SUMMARY OF REQUIREMENTS FOR LARGE QUANTITY GENERATORS	26
POLLUTION PREVENTION	27
FINAL TIPS	28
Are You Sure?.....	28
Can You Use the Universal Waste Rule?.....	28
DEFINITIONS	29
WHERE TO GET MORE HELP	30
Appendix C: Forms/Statements.....	31
Appendix D: Hazardous Waste Generators Checklist.....	34

Introduction

This handbook has been prepared by the Hazardous Waste Inspections & Compliance Unit (HWICU) of the Arizona Department of Environmental Quality (ADEQ) to help small business owners and operators understand how to best comply with federal hazardous waste management regulations, as well as Arizona hazardous waste rules and statutes. This handbook is intended to be an overview and summary of regulations and statutes for a basic understanding of responsibilities for managing hazardous waste. It is not to be used as a substitute for the actual regulations.

Much of the material in this handbook is reprinted from the Environmental Protection Agency's (EPA) handbook entitled, *Managing Your Hazardous Waste - A Guide for Small Business*. EPA's handbook is augmented by material pertaining to hazardous waste management requirements particular to Arizona rules and statutes. Arizona incorporates most of the federal hazardous waste regulations by reference; therefore, Arizona's hazardous waste rules are similar and consistent with the federal hazardous waste regulations.

All of the federal hazardous waste regulations are located in Title 40 of the Code of Federal Regulations (CFR), Parts 260 to 280 (www.ecfr.gov) which are incorporated by Arizona Administrative Codes (A.A.C.) R18-8-260 to 280 (www.azsos.gov/public_services/table_of_contents.htm). State regulations are located in the Arizona Revised Statutes §49-901 through §49-944 (www.azleg.state.az.us/ArizonaRevisedStatutes.asp).

TIP

Whenever you consult a federal hazardous waste regulation to determine the regulations that apply to the waste you are managing, you must also consult the Arizona hazardous waste statutes and rules to determine if any additional and/or different standards also apply.

TIPS

You can look up unfamiliar words or phrases on a list of definitions found at the end of this handbook or in 40 CFR Part 260.

You can find a pull out flow chart of Steps to Basic Hazardous Waste Management in the center of this handbook.

Federal and state rules define a generator as any person or site whose processes and actions create hazardous waste. There are three categories of hazardous waste generators based upon the quantity of hazardous waste a facility generates in any calendar month:

- 1) **Conditionally exempt small quantity generators** (CESQGs) generate less than 220 pounds (100 kg) in any calendar month.
- 2) **Small quantity generators** (SQGs) generate between 220 pounds (100 kg) and 2,200 pounds (1,000 kg) in any calendar month.
- 3) **Large quantity generators** (LQGs) generate more than 2,200 pounds (1,000 kg) or more than 2.2 pounds (1 kg) of acute hazardous waste in any calendar month or 220 pounds (100 kg) acute spill residue.

Each category of generator must comply with the hazardous waste rules specific to that category. This handbook is intended primarily for businesses that generate small quantities of hazardous waste (SQGs and CESQGs) to help them learn which regulations apply.

For More Information

If you have questions about any part of this document or the federal hazardous waste regulations pertaining to Arizona, call the Hazardous Waste Inspections & Compliance Unit at (800) 234-5677.

DECIDING WHETHER HAZARDOUS WASTE REGULATIONS APPLY TO YOU

Federal and state hazardous waste management regulations apply to most businesses that generate hazardous waste. To determine if these regulations apply to your business, you must first determine if you even generate hazardous waste.

What is Hazardous Waste?

Hazardous waste is a special category or subset of regulated wastes that business and industries generate. For a material to be a hazardous waste, the material must first be a solid waste. Generators of a solid waste are required to determine whether that material is a hazardous waste. This determination must be made the moment a material becomes a solid waste.

A solid waste is any solid, liquid, or contained gaseous material that is discarded by being disposed of, burned, incinerated, or recycled. There are some exceptions for recycled materials. A solid waste can be the by-product of a manufacturing process or simply a commercial product that you use in your business—such as a cleaning fluid or battery acid—that is being disposed. Even materials that are recyclable or can be reused in some way—such as burning used oil for fuel—may be considered a solid waste. The regulations in 40 CFR §261.3 state that a solid waste that meets any of the following criteria is a hazardous waste. Hazardous waste can be one of three types:

Listed waste

Your waste is considered hazardous if it appears on one of four lists, F, K, P, and U, published in 40 CFR Part 261 (as incorporated by A.A.C. R18-8-261) and is not otherwise excluded. Currently, more than 500 wastes are listed. Wastes are listed as hazardous because they are known to be harmful to human health and the environment when not managed properly.

Acute hazardous wastes are listed wastes that even when managed properly are extremely dangerous. Examples of acute hazardous wastes include wastes generated from cyanides, arsenic compounds, and some pesticides that can be fatal to humans even in low doses. P-listed and F020, F021, F022, F023, F026, and F027 are examples of acute hazardous wastes.

Characteristic waste

If your waste does not appear on one of the hazardous waste lists, it still might be considered hazardous if it demonstrates one or more of the following characteristics (40 CFR Part 261):

- 1) Ignitable (D001): It catches fire under certain conditions. This is known as an ignitable waste. Four properties: a) Liquids with a flash point less than 140°F,

- b) Non-Liquids that cause fire and burn vigorously and persistently, c) Ignitable compressed gases, and d) Oxidizers. Examples are paints, certain degreasers, solvents, and persulfates.

- 2) Corrosive (D002): It corrodes metals or has a very high or very low pH. This is known as a corrosive waste. Two properties: a) Aqueous solutions with a pH less than or equal to 2 or greater than or equal to 12.5, and b) Liquid that corrodes steel at a rate of greater than 0.25 in. per year at 130°F. Examples are rust removers, acid or alkaline cleaning fluids, and battery acid.

- 3) Reactive (D003): It is unstable and explodes, undergoes violent change without detonating, or produces toxic fumes, gases, and vapors when mixed with water or under other conditions, such as heat or pressure. This is known as a reactive waste (D003). Examples are certain cyanides or sulfide-bearing wastes.

- 4) Toxic (D004 – D043): It is harmful or fatal when ingested or absorbed, or it leaches toxic chemicals into the soil or ground water when disposed on land. This is known as a toxic waste. Examples are wastes that contain high concentrations of heavy metals, such as cadmium, lead, mercury, or silver. Other examples are wastes that contain high concentrations of benzene, methyl ethyl ketone (MEK), or tetrachloroethylene (PERC).

You can determine if your waste is toxic by having it tested by a state licensed laboratory using the Toxicity Characteristic Leaching Procedure (TCLP), by simply knowing that your waste is hazardous or that your processes generate hazardous waste (called generator knowledge). However, you must have written documentation if using generator knowledge for both hazardous and non-hazardous waste.

Mixture Rule & Derived-from Rule

A “mixture” of hazardous waste with solid waste (e.g., motor oil, trash, debris) may become a hazardous waste. The waste “derived from” the treatment, storage, or disposal of hazardous waste may also be a hazardous waste.

TIPS

One way to help determine if your waste exhibits a characteristic is to check the Safety Data Sheet (SDS) that comes with all products containing hazardous materials. In addition, your national trade association or its local chapter should be able to help you.

Identifying Your Waste

To help you identify some of the waste streams common to your business, consult the table below to find a list of typical hazardous wastes generated by small businesses. Use the EPA *Hazardous Waste Codes for Waste Streams Commonly Generated by Small Quantity Generators* list located in the center of this handbook for a more detailed listing of the EPA waste codes associated with these waste streams to determine if your waste is hazardous. Commercial chemical products that are discarded might also become hazardous waste. For a complete listing of hazardous waste codes, consult 40 CFR Part 261 (as incorporated by A.A.C. R18-8-261).

If your waste is hazardous, you will need to manage it according to appropriate federal and state hazardous waste regulations.

- ✓ **First, determine if you generate hazardous waste.**
- ✓ **Measure the amount of hazardous waste you produce per month.**
- ✓ **Determine your generator category to learn the management requirements that apply to you.**

TYPICAL HAZARDOUS WASTES GENERATED BY BUSINESSES

Type of Business	How Generated	Types of Wastes	Waste Codes
Dry Cleaning and Laundry Plants	Commercial dry cleaning processes	Still residues from solvent distillation, spent filter cartridges, cooked powder residue	D001, D039, F002
Furniture/Wood Manufacturing and Refinishing	Wood cleaning and wax removal, refinishing/ stripping, staining, painting, finishing, brush cleaning, and spray brush cleaning	Ignitable wastes, toxic wastes, solvent wastes, paint wastes	D001, F001- F005
Construction	Paint preparation and painting, carpentry and floor work, other specialty contracting activities, heavy construction, wrecking and demolition, vehicle and equipment maintenance for construction activities	Ignitable wastes, toxic wastes, solvent wastes, paint wastes, used oil, acids/bases	D001, D002, F001-F005
Laboratories	Diagnostic and other laboratory testing	Spent solvents, unused re-agents, reaction products, testing samples, contaminated materials	D001, D002, D003, F001- F005, U211
Vehicle Maintenance	Degreasing, rust removal, paint preparation, spray booth, spray guns, brush cleaning, paint removal, tank cleanout, installing lead- acid batteries	Acids/bases, solvents, ignitable wastes, toxic wastes, paint wastes, batteries	D001, D002, D006, D008, F001-F005
Printing and Allied Industries	Plate preparation, stencil preparation for screen printing, photo processing, printing, cleanup	Acids/bases, heavy metal wastes, solvents, toxic wastes, ink, unused chemicals	D002, D006, D008, F001- F005, U-Listed
Equipment Repair	Degreasing, equipment cleaning, rust removal, paint preparation, painting, paint removal, spray booth, spray guns, and brush cleaning	Acids/bases, toxic wastes, ignitable wastes, paint wastes, solvents	D001, D002, D006, D008, F001-F005
Pesticide End- Users/Application Services	Pesticide application and cleanup	Used/unused pesticides, solvent wastes, ignitable wastes, contaminated soil (from spills), contaminated rinsewater, empty containers	D001, F001- F005, U129, U136, P094, P123
Educational and Vocational Shops	Automobile engine and body repair, metal- working, graphic arts—plate preparation, woodworking	Ignitable wastes, solvent wastes, acids/ bases, paint wastes	D001, D002, F001-F005

WHAT DO YOU MEASURE TO DETERMINE YOUR GENERATOR CATEGORY?

DO MEASURE:

For your monthly total, all quantities of listed and characteristic hazardous wastes that are:

- Accumulated on the property for any period of time before disposal or recycling. (Dry cleaners, for example, must count any residue removed from machines, as well as spent cartridge filters.)
- Packaged and transported away from your business.
- Placed directly in a regulated treatment or disposal unit at your place of business.
- Generated as still bottoms or sludges and removed from product storage tanks.

HOW MANY DRUMS IS THAT?

Many hazardous wastes are liquids and are measured in gallons—not pounds. In order to measure your liquid wastes, you will need to convert from gallons to pounds. To do this, you must know the density of the liquid. A rough guide is 27.5 gallons (half of a 55-gallon drum) of waste with a density similar to water weighs about 220 pounds (100 kg); 275 gallons (five 55-gallon drums) of a waste with a density similar to water weighs about 2,200 pounds (1,000 kg).

KEY:*



- = 55 gallon drum
- = 440 pounds (water)
- = 200 kg (water)

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)



- <1/2 drum or
- <27.5 gallons or
- <220 pounds or
- <100 kg

Per calendar month

SMALL QUANTITY GENERATOR (SQG)



- 1/2 to 5 drums or
- 27.5 to 275 gallons or
- 220 to 2,200 pounds or
- 100 to 1,000 kg

Per calendar month

LARGE QUANTITY GENERATOR (LQG)



OR MORE

- >5 drums or
- >275 gallons or
- >2,200 pounds or
- >1,000 kg

Per calendar month

*This is for guidance purposes only. Not all chemicals have the same density.

DO NOT MEASURE:

Wastes that:

- Might be left in the bottom of containers that have been thoroughly emptied through conventional means such as pouring or pumping.
- Are left as residue in the bottom of tanks storing products, if the residue is not removed from the product tank.
- Are reclaimed continuously on-site without storing prior to reclamation, such as dry cleaning solvents.
- Are managed in an elementary neutralization unit, a totally enclosed treatment unit, or a wastewater treatment unit without being stored first. (See definitions at the end of this handbook for an explanation of these types of units.)
- Are discharged directly to publicly owned treatment works (POTWs) without being stored or accumulated first. This discharge to a POTW must comply with the Clean Water Act. POTWs are public utilities, usually owned by the city, county, or state that treat industrial and domestic sewage for disposal.
- Have already been counted once during the calendar month, and are treated on-site or reclaimed in some manner, and used again.
- Are regulated under the universal waste rule or have other special requirements. The federal regulations contain special, limited requirements for managing certain commonly generated wastes. These wastes can be managed following the less burdensome requirements listed below instead of the usual hazardous waste requirements.
 - ✓ Used oil—40 CFR Part 279 (as incorporated by ARS 49-801-818).
 - ✓ Lead-acid batteries that are reclaimed—40 CFR Part 266, Subpart G (as incorporated by A.A.C. R18-8-266).
 - ✓ Scrap metal that is recycled—40 CFR §261.6 (a) (3) (as incorporated by A.A.C. R18-8-261).
 - ✓ Universal wastes (e.g., certain batteries, recalled and cancelled pesticides, mercury-containing thermostats, and mercury-containing waste lamps)—40 CFR Part 273 (as incorporated by A.A.C. R18-8-273).

TIPS

Substance	lbs. per gallon	lbs. per drum
Water	8.340	458.7
Lead	94.659	5,206.25
Methylene chloride	11.134	612.37
Acetone	6.605	363.275

This chart shows different weights per gallon and per drum.

FINDING YOUR GENERATOR CATEGORY

Once you know that you generate hazardous waste, you need to measure the amount of waste you produce each calendar month. The amount of hazardous waste you generate in a calendar month determines your generator category. For waste management purposes, depending on your type of business and your waste generating activities, you might be regulated under different rules at different times.

If, for example, you generate less than 220 pounds (100 kg) of hazardous waste during the month of June, you would be considered a CESQG and your June waste would be subject to the hazardous waste management requirements for CESQGs.

If in July, you generate between 220 and 2,200 pounds (100 to 1,000 kg) of hazardous waste, your generator status would change and you would be considered an SQG for the rest of the calendar year. Your July waste and facility would then be subject to the management requirements for SQGs.

If in August, you generate greater than 2,200 pounds (1,000 kg) of hazardous waste, your generator status would change again and you would be considered an LQG for the rest of the calendar year. Your August waste and facility would then be subject to the management requirements for LQGs.

For annual registration fee purposes, your fee is based on the maximum amount generated in any one month of the previous year. Remember to use your monthly generation amounts to determine your registration status, not a monthly average based on your annual total.

In the example above, you are required to register as an LQG since you generated greater than 2,200 pounds of hazardous waste in August. You are an SQG if you have generated 220 pounds (100 kg) or more but less than 2,200 pounds (1,000 kg) of hazardous waste in any calendar month of the previous year. If this is the case, you are required to pay an annual registration fee of \$100. If you have generated less than 220 pounds (100 kg) of hazardous waste in each calendar month of the previous year, you are a CESQG and do not have an annual registration fee. See Appendix C.

TIPS

If the generator facility generates more than 2.2 pounds (1 kg) of acute hazardous waste or 220 pounds (100 kg) acute spill residue in any calendar month or accumulates those amounts on site, all of the acute hazardous waste must be managed according to the regulations applicable to LQGs.

GENERATION FEE

SQGs are invoiced annually for generation fees and LQGs are invoiced quarterly. Arizona requires a hazardous waste generation fee prorated per ton. See Appendix C.

\$67.50 per ton

ANNUAL REGISTRATION FEE

There is no registration fee for CESQGs.

SQGs = \$100 annually

LQGs = \$300 annually

EPA has established three generator categories, each of which is regulated differently:

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS (CESQGS)

40 CFR § 261.5

You are considered a CESQG if you generate no more than 220 pounds (100 kg) of hazardous waste in any calendar month and do not accumulate over 2,200 pounds (1,000 kg) of total hazardous on-site. You are exempt from hazardous waste management regulations provided that you comply with the basic requirements described in this handbook.

SMALL QUANTITY GENERATORS (SQGS)

40 CFR 262.34(c) & (d)

You are considered an SQG if you generate between 220 and 2,200 pounds (100 and 1,000 kg) of hazardous waste in any calendar month and do not accumulate hazardous waste over 13,228 pounds (6,000 kg). SQGs must comply with federal and state requirements for managing hazardous waste described in this handbook.

LARGE QUANTITY GENERATORS (LQGS)

40 CFR 262.34(a), (b), & (c)

You are considered an LQG if you generate more than 2,200 pounds (1,000 kg) of hazardous waste in any calendar month. LQGs must comply with more extensive hazardous waste rules than those summarized in this handbook.

REQUIREMENTS FOR CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS

If you generate no more than 220 pounds (100 kg) of hazardous waste in any month, you are a conditionally exempt small quantity generator (CESQG). You must comply with three basic waste management requirements to remain exempt from the full hazardous waste regulations that apply to generators of larger quantities (SQGs and LQGs).

First, you must identify all hazardous waste that you generate and keep documentation of your waste determinations.

Second, you may not store more than 2,200 pounds (1,000 kg) total of hazardous waste, 2.2 pounds (1 kg) of acute hazardous waste, and 220 pounds (100 kg) of acute hazardous residue, debris, or soil on-site at any time.

Finally, you must ensure delivery of your hazardous waste to an off-site treatment or disposal facility that is one of the following:

- An Arizona- or federally-regulated hazardous waste treatment, storage, or disposal facility (TSDF).
- A facility permitted, licensed, or registered by Arizona to manage municipal or industrial solid waste.
- A facility that uses, reuses, or legitimately recycles the waste (or treats the waste prior to use, reuse, or recycling).
- A universal waste handler or destination facility subject to the universal waste requirements of 40 CFR Part 273 (as incorporated by A.A.C R18-8-273) if your waste is universal waste. Universal wastes are wastes such as certain batteries, recalled and banned pesticides, or mercury-containing thermostats, and mercury-containing waste lamps.
- Or, if you treat or dispose your hazardous waste on-site, your facility must also meet the above definitions.

TIPS

There are different quantity limits for acute hazardous waste. If you generate more than 2.2 pounds (1 kg.) then you are not considered a CESQG. See page 6 *Finding Your Generator Category* for more information.

CESQGs are not required to obtain an EPA identification number, but it is highly recommended.

CESQGs with EPA identification numbers must complete a Registration Form/Facility Annual Report yearly. See Appendix C.

REQUIREMENTS FOR SMALL QUANTITY GENERATORS

Most small businesses accumulate some hazardous waste on-site for a short period of time and then ship it off-site to a treatment, storage, or disposal facility (TSDF). You will need to use your EPA ID number when you send waste off-site to be managed.

ACCUMULATING YOUR WASTE

Accumulating hazardous waste on-site can pose a threat to human health and the environment, so you may only keep it for a short time without a permit. Before shipping the waste for disposal or recycling, you are responsible for its safe management which includes safe storage, safe treatment, preventing accidents, and responding to emergencies in accordance with federal and Arizona regulations.

SQGs can accumulate no more than 13,228 pounds (6,000 kg) of hazardous waste on-site for up to 180 days without a permit. You can accumulate this amount of waste for up to 270 days if you must transport it more than 200 miles away for recovery, treatment, or disposal. Limited extensions may be granted by the ADEQ director. If you exceed these limits, you may be considered a TSDF and may be required to obtain a hazardous waste permit.

SQGs must ensure their hazardous waste is properly stored (ex: tanks or containers, such as 55-gallon drums). Your storage tanks and containers must be managed according to the following summarized requirements. For detailed information, refer to 40 CFR 262.34(d) and 40 CFR 265 Subpart I & J.

- ✓ **Accumulate wastes according to limits established for SQGs.**
- ✓ **Follow the storage and handling procedures required by federal and Arizona rules for SQGs.**
- ✓ **Ensure to train employees so that they are thoroughly familiar with proper waste handling and emergency procedures.**
- ✓ **Follow requirements for emergency equipment testing and maintenance, access to communications or alarms, aisle space, and posting emergency information as required by federal and Arizona rules.**

For storage containers, you must:

- Label each container with the words “HAZARDOUS WASTE,” and mark each container with the date waste was first added.
- Use a container made of, or lined with, a material that is compatible with the hazardous waste to be stored. (This will prevent the waste from reacting with or corroding the container.)
- Keep all containers holding hazardous waste closed during storage, except when adding or removing waste. Do not open, handle, or store (stack) containers in a way that might rupture them, cause them to leak, or otherwise fail.
- Inspect areas where containers are stored at least weekly. Look for leaks and for deterioration caused by corrosion or other factors.
- Maintain the containers in good condition. If a container leaks, put the hazardous waste in another container, or contain it in some other way that complies with EPA and state regulations.
- Do not mix incompatible wastes or materials unless precautions are taken to prevent certain hazards.

For tanks, you must:

- Label each tank with the words “HAZARDOUS WASTE.”
- Store only waste that will not cause the tank or the inner liner of the tank to rupture, leak, corrode, or fail.
- Equip tanks that have an automatic waste feed with a waste feed cutoff system or a bypass system for use in the event of a leak or overflow.
- Inspect discharge control and monitoring equipment and the level of waste in uncovered tanks at least once each operating day. Inspect the tanks and surrounding areas for leaks or other problems (such as corrosion) once each operating day.
- Use the National Fire Protection Association (NFPA) buffer zone requirements for covered tanks containing ignitable or reactive wastes. These requirements specify distances considered to be safe buffer zones for various ignitable or reactive wastes. You can reach the NFPA at (617) 770-3000.
- Do not mix incompatible wastes or materials unless precautions are taken to prevent certain hazards.
- Do not place ignitable or reactive wastes in tanks unless certain precautions are taken.
- Provide at least two feet (60 centimeters) of freeboard (space at the top of each tank) in uncovered tanks, unless the tank is equipped with a containment structure, a drainage control system, or a standby tank with adequate capacity.

TIP

Special storage requirements apply to liquid hazardous wastes containing polychlorinated biphenyls (PCBs).

TREATING YOUR WASTE TO MEET THE LAND DISPOSAL RESTRICTIONS (LDRs)

Most hazardous wastes may not be disposed on land unless they meet treatment standards. The Land Disposal Restrictions (LDR) program requires that the waste is treated to reduce the hazardous constituents to levels set by EPA, or that the waste is treated using a specific technology. It is your responsibility to ensure that your waste is treated to meet LDR treatment standards before it is disposed on land. (See page 14 for a description of required LDR notices.) Most SQGs probably will have their designated TSDF do this treatment. If you choose to treat your waste yourself to meet LDR treatment standards, there are additional requirements, including waste analysis plans, notifications, and certifications. To learn about these requirements call the EPA RCRA Hotline (800) 424-9346, the ADEQ Inspections & Compliance Unit (800) 234-5677, or consult 40 CFR Part 268 (as incorporated by A.A.C. R18-8-268).



SHIPPING HAZARDOUS WASTE OFF-SITE

When shipping waste off-site, SQGs must follow certain procedures that are designed to ensure safe transport and proper management of the waste.

LABELING WASTE SHIPMENTS

- Package, label and mark your shipment, and placard the vehicle in which your waste is shipped as specified in Department of Transportation (DOT) regulations.
- Prepare a hazardous waste manifest to accompany your shipment.
- Include an LDR notice and certification with each waste shipment.
- Ensure the proper management of any hazardous waste you ship (even when it is no longer in your possession).

SQGs must properly package, label and mark all hazardous waste shipments, and placard the vehicles in which these wastes are shipped following DOT regulations. Most small businesses use a commercial transporter to ship hazardous waste. These transporters can advise you on specific requirements for placarding, labeling, marking, and packaging; however, you remain responsible for compliance. For additional information, consult DOT regulations (49 CFR Parts 172 and 173), or call the DOT hazardous materials information line at (202) 366-4488. In Arizona, you can also contact ADOT Hazardous Materials, at (602) 712-4407.

Federal and Arizona regulations allow you to transport your own hazardous waste to a designated TSDF provided that you comply with DOT rules and register with ADEQ as a hazardous waste transporter. Some states, however, do not allow this practice. Call DOT and the state hazardous waste management agency to which you are shipping the waste regarding applicable regulations.

SELECTING A TSDF

It is important to choose your transporter and your TSDF carefully since you remain responsible for the proper management of your hazardous waste even after it has left your site and has been processed by your TSDF.

SQGs may send their waste only to a regulated TSDF or recycler. Most regulated TSDFs and recyclers will have a permit from the state or EPA. Some, however, may operate under other regulations that do not require a permit. Check with the appropriate state authorities to be sure the facility you select has any necessary permits. All TSDFs and recyclers must have EPA ID numbers.

TIP

EPA WASTE CODES:

Ensure to include all hazardous waste codes applicable to the waste being manifested.

PREPARING HAZARDOUS WASTE MANIFESTS

A hazardous waste manifest must accompany all hazardous waste that is shipped off-site. A hazardous waste manifest is a multipart form designed to track hazardous waste from generation to disposal. It will help you track your waste during shipment and ensure it arrives at the proper destination. If you send waste to a recycling facility, you may be able to use a tolling agreement instead of a manifest. A tolling agreement is a closed-loop arrangement whereby a generator contracts with a recycling company to reclaim its hazardous waste and return it as a recycled product, thereby avoiding disposal. A copy of the contract must be kept on file for three years after the contract has ended.

Various versions of hazardous waste manifest forms are available.

- Some states require their own manifest form. Arizona uses the federal form (Uniform Hazardous Waste Manifest, EPA form 8700-22). If the state to which you are shipping your waste requires its own manifest, use that state's form. To obtain manifest forms, contact the hazardous waste management agency of the recipient state, your transporter, or the TSDF that you intend to use.
- If the state to which you are shipping does not require its own manifest, you can use the federal form. Copies are available from some transporters, TSDFs, and some commercial printers.

TIP

FOR HELP IN CHOOSING A TRANSPORTER OR TSDF, CHECK WITH THE FOLLOWING SOURCES:

- References from business colleagues who have used a specific hazardous waste transporter or TSDF.
- Trade associations for your industry that might keep a file on companies that handle hazardous waste.
- The Better Business Bureau or Chamber of Commerce in the TSDF's area, which might have a record of any complaints registered against a transporter or a facility.
- ADEQ can tell you whether the transporter or TSDF has a U.S. EPA ID number and a permit, if required.

**HAZARDOUS WASTE CODE
CHART**

**PULL OUT AND POST FOR
QUICK REFERENCE**

SOLVENTS



Solvents, spent solvents, solvent mixtures, or solvent still bottoms are often hazardous. The following are some commonly used hazardous solvents (also see ignitable wastes for other hazardous solvents, and 40 CFR 261.31 for most listed hazardous waste solvents):

Benzene	F005	Petroleum Solvents	D001
Carbon Disulfide	F005	(Flashpoint less than 140°F)	
Carbon Tetrachloride	F001	Pyridine	F005
Chlorobenzene	F002	1,1,1-Trichloroethane	F001, F002
Cresols	F004	1,1,1,2-Trichloroethane	F002
Cresylic Acid	F004	Tetrachloroethylene	F001, F002
O-Dichlorobenzene	F002	(Perchloroethylene)	
Ethanol	D001	Toluene	F005
2-Ethoxyethanol	F005	Trichloroethylene	F001, F002
Ethylene Dichloride	D001	Trichlorofluoromethane	F002
Isobutanol	F005	Trichlorotrifluoroethane	
Isopropanol	D001	(Valcylene)	F002
Kerosene	D001	White Spirits	D001
Methyl Ethyl Ketone	F005		
Methylene Chloride	F001, F002		
Naphtha	D001		
Nitrobenzene	F004		
2-Nitrobenzene	F004		

ACIDS



Acids, bases, or mixtures having a pH less than or equal to 2 or greater than or equal to 12.5 are considered corrosive (for a complete description of corrosive wastes, see 40 CFR 261.22). All corrosive materials and solutions have the waste code *D002*. The following are some of the more commonly used corrosives:

Acetic Acid
Ammonium Hydroxide Oleum
Chromic Acid
Hydrobromic Acid
Hydrochloric Acid
Hydrofluoric Acid
Nitric Acid

IGNITABLE WASTES



Ignitable wastes are any liquids that have a flashpoint less than 140°F, any non-liquids that are capable of causing a fire through friction, absorption of moisture, or spontaneous chemical change, or any ignitable compressed gas as described in 49 CFR 173.300 (for a complete description of ignitable wastes, see 40 CFR 261.21).

Examples are spent solvents, solvent still bottoms, epoxy resins and adhesives, and waste inks containing flammable solvents. Unless otherwise specified, all ignitable wastes have the waste code *D0*

Acetone	F003	Ethyl Benzene	F003
Benzene	F005	Ethyl Ether	F003
n-Butyl Alcohol	F003	Ethylene Dichloride	D001
Chlorobenzene	F002	Methanol	F003
Cyclohexanone	F003	Methyl Isobutyl Ketone	F003
Ethyl Acetate	F003	Petroleum Distillates	D001
		Xylene	F003

LEAD-ACID BATTERIES

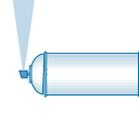


Used lead-acid batteries should be reported on the notification form only if they are not recycled. Used lead-acid batteries that are recycled do not need to be counted in

determining the quantity of waste that you generate in any month. Special requirements do apply if you recycle your batteries on your own premises (see 40 CFR 266).

Lead Dross D008
Spent Acids D002
Lead-Acid Batteries D008

PESTICIDES



The pesticides listed below are hazardous. Wastes marked with an asterisk (*) have been designated acutely hazardous.

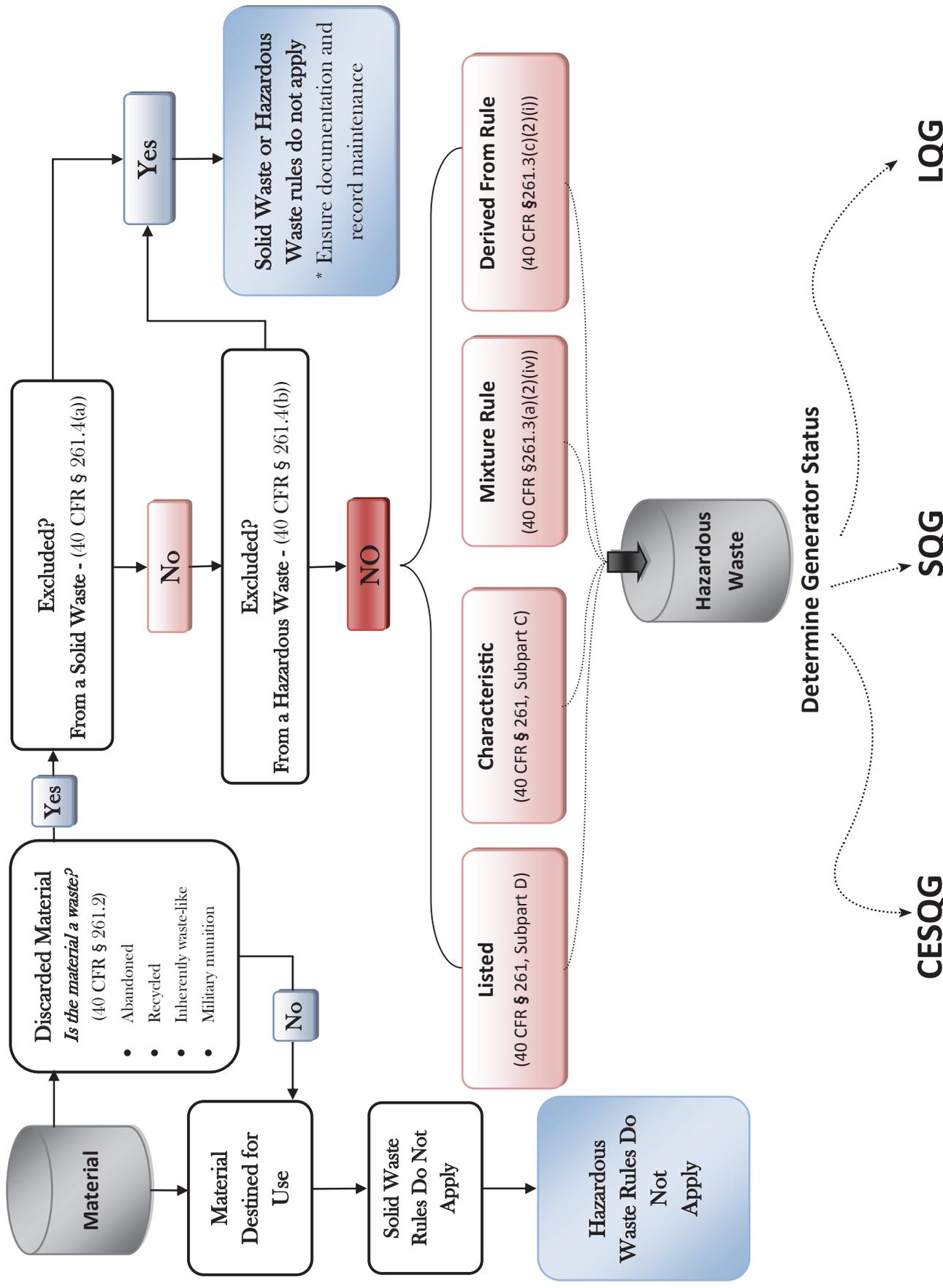
For a more complete listing, see 40 CFR 261.32 for specific listed pesticides, and other wastes, wastewaters, sludges, and by-products from pesticide formulators.

EPA HAZARDOUS WASTE CODES FOR WASTE STREAMS COMMONLY GENERATED BY SMALL QUANTITY GENERATORS

**STEPS TO BASIC
HAZARDOUS WASTE
MANAGEMENT**

**PULL OUT AND POST FOR
QUICK REFERENCE**

Steps to Basic Hazardous Waste Management



GENERATOR CLASS COMPARISON CHART

	Conditionally Exempt Small Quantity Generator	Small Quantity Generator	Large Quantity Generator
Monthly Generation Rate	≤ 100 kg (220 lbs.) - or - ≤ 1 kg (2.2 lbs.) of Acute waste - or - ≤ 100 kg (220 lbs.) residue, debris, soil	> 100 kg (220 lbs.) - and - ≤ 1000 kg (2,200 lbs.)	> 1000 kg (2,200 lbs.) -or - > 1 kg (2.2 lbs.) of Acute waste
Maximum Amount Stored	≤ 1000 kg (2,200 lbs.) of total (acute + non-acute waste) - or - ≤ 1 kg Acute waste (2.2 lbs.) - or - ≤ 100 kg (220 lbs.) Acute residue, debris, soil	≤ 6000 kg (~13,228 lbs.) total (acute + non acute waste) - or - ≤ 1 kg (2.2 lbs.) Acute waste - or - ≤ 100 kg (220 lbs.) Acute residue, debris, soil	No Amount Limit - but - < 20,000 kg (~44,100 lbs.) for F006 ~2 roll-offs 15 yds. each; ~1 standard 44,000 lb. truck load
Storage Time Limit	No Time Limit	≤ 180 days ≤ 270 days if greater than 200 miles to treatment, storage, disposal facility (TSDF) 30 day extension with prior ADEQ approval	≤ 90 days ≤ 180 days for F006 sludge when within 200 miles to TSDF 30 day extension with prior ADEQ approval
ADEQ Registration and Generation Fees	Not Required No Fees	\$100 Annual Fee \$67.50 Generation Fee per ton (* No more than \$200,000/generator/yr./site/hazardous waste generated)	\$300 Annual Fee \$67.50 Generation Fee per ton (* No more than \$200,000/generator/yr./site/hazardous Waste generated)
EPA ID Number	Not Required, but recommended	Required (3010; 8700-12 form)	Required per 40 CFR § 262.12 (3010; 8700-12 form)
Facility Annual Report	Not required	ADEQ Facility Registration Form for Hazardous Waste is the Facility Annual Report (FAR)	Required Federal Long Form [AACR 18-8 262.H] EPA Form 8700-13 due March 1st of the current year for generator waste activity for the previous year
RCRA Subtitle C	Site identification form required for any facility when initially registering with ADEQ or to update change to initial form (8700-12)		
Contingency Plan	Not Required	Basic Information posted by Phone	Full Plan Required (40 CFR §265 Subpart D)
Personnel Training	Not Required	Basic Training (40 CFR §262.34(d)(5)(iii))	Required (40 CFR §265.16)
Preparedness and Prevention	Not Required	Required (40 CFR §265 Subpart C)	Required (40 CFR §265 Subpart C)
Manifest	Not Required	Required [AACR 18-8-262.F & I]	Required [AACR 18-8-262.F & I]
Exception Report	Not Required	Required after 60 Days (40 CFR §262.42(b))	Required after 45 Days (40 CFR §262.42(a)(2))
Satellite Containers	Allowed	Allowed (40 CFR §262.34 (c)(1))	Allowed (40 CFR §262.34 (c)(1))
Storage Requirements	Limited requirements. Identify all hazardous wastes; comply with quantity limits; ship to approved solid or hazardous waste facility; do not discharge to soil/water/air.	Comply with the technical standards under 40 CFR §265 Subpart I for containers, except 265.176 (50 foot setback for ignitables) and 265.178 (air emissions). Comply with reduced Subpart J requirements for tanks.	Comply with the technical standards under 40 CFR Subpart I for containers including air emission standards. Comply with full Subpart J requirements for tanks.
General Reference	40 CFR §261.5	40 CFR §262.34(d)&(e)	40 CFR §262.34(a)&(b)

*This graph is only for basic informational purposes only. Please refer to the corresponding federal and state regulations for a complete list of requirements.

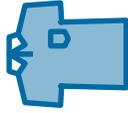
**STEPS TO BASIC
HAZARDOUS WASTE
MANAGEMENT**

**PULL OUT AND POST FOR
QUICK REFERENCE**

Perchloric Acid
 Phosphoric Acid
 Potassium Hydroxide
 Sodium Hydroxide
 Sulfuric Acid

DRY CLEANING FILTRATION RESIDUES

Cooked powder residue (perchloroethylene plants only), still residues, and spent cartridge filters containing perchloroethylene or valclore are hazardous and have the waste code *F002*. Still residues containing petroleum solvents with a flashpoint less than 140°F are considered hazardous and have the waste code *D001*.



HEAVY METALS/INORGANICS

Heavy metals and other inorganic waste materials are considered hazardous if the extract from a representative sample of the waste has any of the specific constituent concentrations as shown in 40 CFR 262.24, Table 1. Materials may include dusts, solutions, wastewater treatment sludges, paint wastes, and waste inks. The following are common heavy metals/inorganics:

Arsenic	D004	Lead	D008
Barium	D005	Mercury	D009
Cadmium	D006	Selenium	D010
Chromium	D007	Silver	D011



INK SLUDGES CONTAINING CHROMIUM AND LEAD

This category includes solvent washes and sludges, caustic washes and sludges, and water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead. All ink sludges have the waste code *K086*.



This list can be used as a guide for small quantity generators to determine which of their wastes, if any, are hazardous, and to determine the EPA waste codes associated with each waste. It is not intended to provide a comprehensive list of all waste codes and waste streams that small businesses could generate. Except for the pesticide and wood preserving categories, this list does not include waste codes for commercial chemical products that are hazardous when discarded unused. These wastes, as well as all others not listed here, can be found in Title 40 of 40 CFR Part 261. If you have any questions, contact ADEQ at (800) 234-5677, the RCRA Hotline at (800) 424-9346 or TDD (800) 533-7672 from other locations.

Aldicarb* P070
 Amitrole U011
 1,2-Dichloropropene U084
 Heptachlor* P059
 Lindane U129
 Methyl Parathion* P071
 Parathion* P089
 Phorate* P094

REACTIVES



Reactive wastes include materials or mixtures that are unstable, react violently with or form explosive mixtures with water, generate toxic gases or vapors when mixed with water (or when exposed to pH conditions between 2 and 12.5 in the case of cyanide or sulfide-bearing wastes), or are capable of detonation or explosive reaction when heated or subject to shock (for a complete description of reactive wastes, see 40 CFR 261.23). Unless otherwise specified, all reactive wastes have the waste code *D003*. The following materials are commonly considered to be reactive:

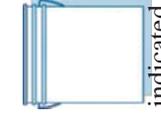
Acetyl Chloride | Cyanides | Organic Peroxides | Permanganates
 Chromic Acid | Hypochlorites | Perchlorates | Sulfides

SPENT PLATING AND CYANIDE WASTES

Spent plating wastes contain cleaning solutions and plating solutions with caustics, solvents, heavy metals, and cyanides. Cyanide wastes may also be generated from heat treatment operations, pigment production, and manufacturing of anti-caking agents. Plating wastes generally have the waste codes *F006-F009*, with *F007* and *F009* containing cyanide. Cyanide heat treating wastes generally have the waste codes *F010-F012* (see 40 CFR 261.31 for a more complete description of plating wastes).



WOOD PRESERVING AGENTS



The wastewater treatment sludges from wastewater treatment operations are considered hazardous. Bottom sediment sludges from the treatment of wastewater processes that use creosote and pentachlorophenol have the waste code *K001*. In addition, unless otherwise indicated, specific wood preserving compounds are:

Chromated Copper Arsenate D004 | Pentachlorophenol F027
 Creosote U051

**HAZARDOUS WASTE CODE
CHART**

**PULL OUT AND POST FOR
QUICK REFERENCE**

TIP

EXPORT NOTIFICATION:

If you choose to export your hazardous waste, you must notify EPA 60 days before the intended date of shipment to obtain written consent. EPA's Acknowledgment of Consent document must accompany the shipment at all times. For more information on how to obtain the consent to export hazardous waste, contact the EPA RCRA Hotline at (800) 424-9346.

WASTE MINIMIZATION: THE KEY TO BETTER WASTE MANAGEMENT

The easiest and most cost-effective way of managing any waste is not to generate it in the first place. You can decrease the amount of hazardous waste your business produces by developing a few good housekeeping habits. Good housekeeping procedures generally save businesses money, and they prevent accidents and waste. To help reduce the amount of waste you generate, try the following practices at your business.

- Do not mix wastes. Do not mix non-hazardous waste with hazardous waste. Once you mix non-hazardous waste with hazardous waste, you may increase the amount of hazardous waste created, as the whole batch may become hazardous. Mixing waste can also make recycling very difficult, if not impossible. A typical example of mixing wastes would be putting nonhazardous cleaning agents in a container of used hazardous solvents.
- Recycle and reuse manufacturing materials. Many companies routinely put useful components back into productive use rather than disposing them. Items such as oil, solvents, acids, and metals are commonly recycled and used again. In addition, some companies have taken waste minimization actions, such as using fewer solvents to do the same job, using solvents that are less toxic, or switching to a detergent solution.
- Change materials, processes, or both. Businesses can save money and increase efficiency by replacing a material or a process with another that produces less waste. For example, you could use plastic blast media for paint stripping of metal parts rather than conventional solvent stripping.
- Safely store hazardous products and containers. You can avoid creating more hazardous waste by preventing spills or leaks. Store hazardous product and waste containers in secure areas, and inspect them frequently for leaks. When leaks or spills occur, materials used to clean them up also become hazardous waste.

You must fill in all parts of a manifest and sign it. Information requested includes: name of transporter, EPA ID number, quantity of waste, hazardous waste codes, and a description of the waste based on DOT requirements, such as proper shipping name and hazard class. Call the DOT information line for more information on DOT waste description requirements. Arizona requires the EPA Waste Codes, (D001 – D043, F-, K-, P-, or U-listed), to be listed in Column I.

The transporter is required to sign the completed manifest when the shipment is accepted for transport. The facility operator at the designated TSDF also signs the form when the shipment is received and sends a copy of it back to you. You must keep this copy on file for three years. (It might be a good practice, however, to keep it for as long as you are in business.) Arizona also requires the generator and transporter to send a copy of the manifest to ADEQ, GIS & IT Unit, 1110 W. Washington St., 4415A-1, Phoenix, AZ, 85007. All TSDFs located in Arizona are also required to send copies to ADEQ.

Arizona requires generators to submit manifests for hazardous waste shipments only. The generator copy, also known as the "Destination Facility to Generator Copy," that is submitted to ADEQ must be legible and have three signatures: the generator, the transporter, and the TSDF.

Any SQG that does not receive a signed copy of the manifest from the designated TSDF must submit a legible copy of the manifest to ADEQ together with a written notice indicating that a signed copy was not received from the TSDF. This is known as an exception report and must be submitted to ADEQ within 60 days following the end of the month of shipment of the waste.

If errors are found on your manifest, you will be notified by ADEQ. You must correct the manifest and pay a \$20 per manifest resubmittal fee.

LAND DISPOSAL RESTRICTIONS (LDR) REPORTING REQUIREMENTS

Regardless of where the waste is being sent, for each shipment of waste subject to LDRs, you must send the receiving TSDF or recycler an LDR notice. This notice must provide information about your waste, such as the EPA hazardous waste code and the LDR treatment standard. The purpose of this notice is to let the TSDF know that the waste must meet treatment standards before it is land disposed. There is no required form for this notice, but your TSDF may provide a form for you to use. A certification may also be required in specific situations. Call the EPA RCRA Hotline at (800) 424-9346, the ADEQ Inspections and Compliance Unit at (800) 234-5677, and consult 40 CFR Part 268 for help with LDR notification and certification requirements.

RESPONDING TO EMERGENCIES

You must be prepared for an emergency at your facility. One way is to develop a contingency plan. A contingency plan usually answers a set of “what if” questions. For example: “What if there is a fire in the area where hazardous waste is stored?” or “What if I spill hazardous waste or one of my hazardous waste containers leak?” Although EPA does not require SQGs to develop a written contingency plan, in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents, having such a plan would provide an organized and coordinated course of action. EPA does require SQGs to establish basic safety guidelines and response procedures to follow in the event of an emergency.

Worksheets 1 and 2 (see Page 25) can help you set up these procedures. The information on Worksheet 1 must be posted near your phones. You must ensure that employees are familiar with these procedures. Keep information current.



TIP

Clean up spills and leaks quickly to avoid larger problems.

IF YOU THINK YOU HAVE AN EMERGENCY, IMMEDIATELY CALL THE NATIONAL RESPONSE CENTER AT (800) 424-8802 AND ADEQ AT (800) 234-5677.

In the event of a fire, explosion, or other release of hazardous waste that could threaten human health outside the facility, or if you think that a spill has reached surface water, call the National Response Center to report the emergency. The Response Center will evaluate the situation and help you make appropriate emergency decisions. In many cases, you will find that the problem you faced was not a true emergency, but it is better to call if you are not sure. Stiff penalties exist for failing to report emergencies.

PREVENTING ACCIDENTS

Whenever you store hazardous waste on-site, you must minimize the potential risks from fires, explosions, or other accidents.

All SQGs that store hazardous waste on-site must be equipped with the following, unless none of the hazards posed by the waste handled at the facility could require a particular kind of equipment specified below:

- An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to all personnel.
- A device, such as a telephone (immediately available at the scene of operations) or a hand-held, two-way radio, capable of summoning emergency assistance from local police and fire departments or emergency response teams.
- Portable fire extinguishers, fire control devices (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control materials, and decontamination supplies.
- Water at adequate volume and pressure to supply water hose streams, foam-producing equipment, automatic sprinklers, or water spray systems.

You must test and maintain all equipment to ensure proper operation. You must allow sufficient aisle space to permit the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation. You must attempt to secure arrangements with fire departments, police, emergency response teams, equipment suppliers, and local hospitals, as appropriate, to provide services in the event of an emergency. You must ensure that personnel handling hazardous waste have immediate access to an alarm or emergency communications device.



TIP

It is good practice never to mix wastes. Mixing wastes can create an unsafe work environment and lead to complex and expensive cleanups and disposal.

WORKSHEET 1

REQUIRED. Fill in and post this information next to your telephone.

EMERGENCY RESPONSE INFORMATION

EMERGENCY COORDINATOR

Name: _____

Telephone: _____

FIRE EXTINGUISHER

Location(s): _____

SPILL CONTROL MATERIALS

Location(s): _____

FIRE ALARM (IF PRESENT)

Location(s): _____

FIRE DEPARTMENT

Telephone: _____



WORKSHEET 2

Fill in shaded area and post this information next to your telephone. Make sure all employees read and are familiar with its contents.

EMERGENCY RESPONSE PROCEDURES

In the event of a spill:

Contain the flow of hazardous waste to the extent possible, and as soon as is possible, clean up the hazardous waste and any contaminated materials or soil.

Our company name: _____

Our address: _____

In the event of a fire:

Call the fire department and, if safe, attempt to put out the fire using a fire extinguisher.

Our U.S. EPA ID number: _____

Date of accident: _____

Time of accident: _____

Type of accident (e.g., spill or fire): _____

Quantity of hazardous waste involved: _____

Extent of injuries, if any: _____

In the event of a fire, explosion, or other release that could threaten human health outside the facility, or if you know that the spill has reached surface water: Call the National Response Center at its 24-hour number (800) 424-8802 and ADEQ at its 24-hour number (800) 234-5677 or (602) 771-2330.

Provide the following information:

Estimated quantity and disposition of recovered materials, if any: _____



SUMMARY OF REQUIREMENTS FOR LQGS

If you are a large quantity generator (LQG) [generating more than 2,200 pounds (1,000 kg), 2.2 pounds (1 kg) of acute hazardous waste, or 220 pounds (100 kg) of acute spill residue in any calendar month], you must comply with the full set of hazardous waste regulations. If you accumulate more than 13,228 pounds (6,000 kg) of hazardous waste, 2.2 pounds (1 kg) of acute hazardous waste or 220 pounds (100 kg) of acute spill residue, debris, or soil, you must comply with the full set of hazardous waste regulations. This table summarizes the federal and state LQG requirements. This is only a summary and does not include all of the LQG requirements. For more details, call the EPA RCRA Hotline, ADEQ Inspections & Compliance Unit, or see 40 CFR Part 262.

LQG FEES

Registration = \$300 annually

Hazardous waste generation = \$67.50 per ton
(prorated)

Submit annual reports by March 1 of each year covering generator activities for the previous year

LQG REQUIREMENTS	SUMMARY
Hazardous waste determination (40 CFR 262.10) Generator category determination (40 CFR 262.10 (b) and 261.5 (b) & (c))	Identify and document all hazardous wastes you generate. Measure the amount of hazardous waste you generate per calendar month to determine your generator category (e.g., LQG).
EPA ID numbers (40 CFR 262.12)	Obtain a copy of EPA Form 8700-12, fill out the form, and send it to the contact listed with the form. An EPA ID number will be returned to you for your location. See Page 7.
Prepare hazardous waste for shipment off-site (40 CFR 262.30–262.33)	Package, label, mark, and placard wastes following DOT requirements. Ship waste using hazardous waste transporter.
The manifest (40 CFR 262.20–262.23, 262.42)	Ship waste to a hazardous waste treatment, storage, disposal, or recycling facility. Ship hazardous waste off-site using the manifest system (EPA Form 8700-22) or state equivalent. Send copy to ADEQ.
Managing hazardous waste on-site (40 CFR 262.34)	Accumulate waste for no more than 90 days without a permit. Accumulate waste in: Containers / drip pads / tanks / containment buildings, and comply with specified technical standards for each unit type. Comply with preparedness and prevention requirements. Prepare written contingency plan. Train employees in hazardous waste management and emergency response.
Recordkeeping, registration, fees, and annual report (40 CFR 262.40–262.41) <i>Arizona requires an annual report</i>	Retain specified records for three years. Register with ADEQ and pay annual fee of \$300. Arizona requires a hazardous waste generation fee of \$67.50 for each ton generated, beginning at 1 ton and prorated per additional ton. LQGs are invoiced quarterly. Submit annual reports by March 1 of each year covering generator activities for the previous year.
Comply with land disposal restrictions (40 CFR 268)	Ensure that wastes meet treatment standards prior to land disposal. Send notifications and certifications to TSDf as required. Maintain waste analysis plan if treating on-site.
Export/import requirements (40 CFR 262 Subparts E & F)	Ensure that wastes meet treatment standards prior to land disposal. Send notifications and certifications to TSDf as required. Maintain waste analysis plan if treating on-site.

POLLUTION PREVENTION (P2)



Pollution Prevention (P2) is defined as “source reduction” under EPA’s P2 Act that was established in 1990. Source reduction refers to practices that reduce the amount of hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment prior to recycling,

treatment, or disposal and reduces hazards to the public health and the environment associated with the releases of such substances. Arizona’s state P2 policy was adopted in 1991 and includes recycling of wastes or secondary material and reuse as well as activities such as modifying production processes to eliminate or substitute less toxic substances, implementing conservative techniques and reusing materials in lieu of placing them into the waste streams.

P2 STATUTE

The Arizona P2 Plan Program can be found in the Arizona Revised Statutes (A.R.S.) § 49-961 through 973.

REQUIRED FILING THRESHOLDS

A person who owns or operates a facility that meets the reporting requirements prescribed by A.R.S. § 49-962 shall prepare and implement a P2 plan that addresses a reduction in the use of toxic substances and the generation of hazardous wastes. [Ref: A.R.S. § 49-963.A]

A P2 Plan shall be prepared and implemented if any one of the following thresholds is met:

- During the preceding calendar year, the owner or operator was required to file an annual toxic chemical release (EPA Toxic Release Inventory (TRI)) form (Form A or Form R) for the facility. [Ref: A.R.S. § 49-962.1]
- During the preceding calendar year, the facility generated an average of 2.2 pounds (1 kg) per month of acute hazardous waste or an average of 2,200 pounds (1000 kg) per month of hazardous waste in a calendar year, exclusive of an episodic, accidental or remediation related release or occurrence. [Ref: A.R.S. § 49-962.2]
- A facility that uses in excess of ten thousand pounds in a calendar year of a toxic substance as defined in A.R.S. § 49-961 shall file a P2 plan by December 31 of the following year. [Ref: A.R.S. § 49-963.D]
- Please visit the U.S. EPA: Toxics Release Inventory (TRI) site for a list of toxic substances (chemicals and chemical categories) at: <http://www2.epa.gov/toxics-release-inventory-tri-program/tri-listed-chemicals>.

EXEMPTIONS TO THE P2 PLAN

If any of the following exemptions are met, a P2 Plan is not required, even if the facility meets the threshold requirements. The department welcomes voluntary submittal of a P2 Plan.

- The facility is located on tribal land.
- The facility is a household hazardous waste collection facility.
- The facility is primarily engaged in receiving waste from off-site and has a permit or plan approved under A.R.S. § 49 for storing, treating or disposing of solid, special, or hazardous waste.
- All of the toxic substances used are for metallurgical or mining purposes (smelting, refining) per A.R.S. § 27-901.9.
- The facility is required to file solely due to the storage, supply, application or use of a pesticide as defined in A.R.S. § 3-361 for agricultural application and is subject to the pesticide reporting or record keeping requirements, pursuant to A.R.S. §49-305 or rules adopted pursuant to A.R.S. § 3-363.
- The facility’s industry is issued an agricultural general permit pursuant to A.R.S. § 49-947.
- The facility caused a one-time, unexpected, event that generates a hazardous waste or an acute hazardous waste from an unused hazardous substance and;
 - ✓ The unused hazardous substance cannot be lawfully used due to changes in statute, or rule and;
 - ✓ A toxic data report has been filed for the event as prescribed in A.R.S. § 49-962 and;
 - ✓ The toxic data report is required solely as a result of the one-time generation event.

ADEQ’s Pollution Prevention Analysis and Plan Guidance Manual and editable plan forms can be downloaded at: <http://www.azdeq.gov/function/forms/appswaste.html#p2>

ADEQ staff can assist you with completing a P2 Plan, P2 Plan amendments, and/or annual progress reports; identifying P2 opportunities; or answering questions about the requirements. To contact the P2 Program, call (800)234-5677 or visit ADEQ’s P2 Website at <http://www.azdeq.gov/environ/waste/p2/index.html>.

FINAL TIPS

CAN YOU USE THE UNIVERSAL WASTE RULE?

Do you have hazardous wastes that can be managed under the universal waste rule? Items such as waste batteries, certain hazardous waste pesticides, mercury-containing thermostats, and mercury-containing waste lamps fall under the universal waste regulations.

Small and large businesses that generate hazardous waste that are in the universal waste categories listed above can use the more streamlined requirements under the universal waste rule. It eases the regulatory burden on businesses that generate these wastes. Specifically, it has streamlined requirements for: notification, labeling, marking, prohibitions, accumulation time limits, employee training, response to releases, off-site shipments, tracking, exports, and transportation.

For example, the rule extends the amount of time that businesses can accumulate these materials on site allowing storage for up to 1 year from the accumulation start date. It also allows companies to transport them with a common carrier, instead of a hazardous waste transporter, and no longer requires companies to obtain a hazardous waste manifest.

For additional assistance, contact the ADEQ Hazardous Waste Inspections & Compliance Unit at (800) 234-5677.



ARE YOU SURE?

- Have you done a hazardous waste determination?
- Have you kept the records of test results, waste analysis, or other determination?
- Have you marked your containers of hazardous waste with the words "HAZARDOUS WASTE?"
- Have you included the accumulation start date?
- Do you keep your containers closed at all times, except when adding or removing waste?
- Are you operating and maintaining your facility in a manner to minimize the possibility of hazards through abatement of potential fire, explosions, safety hazards, and potential releases?
- Are you providing adequate maintenance and repair of your equipment and structures so you are in compliance with state and local fire, electrical and building codes, and safety codes?
- Are you controlling, containing, cleaning up, and properly disposing any and all releases of hazardous waste?
- Have you developed a contingency plan or are you maintaining and posting the required emergency contact information next to your telephone?
- Are you filing your annual report and paying your registration and generation fees?

The above are issues that inspectors typically find when conducting facility inspections—don't be caught in violation.

DEFINITIONS

Accumulate – To generate and store an amount of hazardous waste over a period of time. A generator may accumulate hazardous waste for a short period of time before shipping it off-site. The waste must be accumulated in either tanks or containers; it may not be accumulated in surface impoundments.

Acute Hazardous Waste – Waste that is listed and even when managed properly is extremely dangerous. Any hazardous waste with an EPA waste code beginning with the letter "P" or any of the following "F" codes: F020, F021, F022, F023, F026, and F027.

By-product – A material that is not one of the primary products of a production process. Examples of by-products are process residues, such as slags or distillation column bottoms.

Commercial Chemical Product – A chemical substance that is manufactured or formulated for commercial or manufacturing use.

Container – Any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

Elementary Neutralization Unit – A tank, tank system, container, transport vehicle, or vessel (including ships) that is designed to contain and neutralize corrosive waste.

Management, Hazardous Waste – Systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, or disposal of hazardous waste.

Manifest, Uniform Hazardous Waste – The "cradle-to-grave" paperwork must accompany a shipment of hazardous waste as it moves from the generator to the transporter and eventually to the hazardous waste management facility.

Reclaimed Material – Material that is regenerated or processed to recover a usable product. Examples are the recovery of lead values from spent batteries and the regeneration of spent solvents.

Recovered Material – A material or by-product that has been recovered or diverted from solid waste. Does not include materials or by-products generated from, and commonly used within, an original manufacturing process.

Recycled Material – A material that is used, reused, or reclaimed.

Reused Material – A material that is employed as an ingredient in an industrial process to make a product, or as an effective substitute for a commercial product.

Spent Material – Any material that has been used and, as a result of contamination, can no longer serve the purpose for which it was produced without first processing it.

Sludge – Any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

Still Bottom – Residue or by-product of a distillation process, such as solvent recycling.

Tank – A stationary device designed to contain an accumulation of hazardous waste that is constructed primarily of nonferrous materials (e.g., wood, concrete, steel, plastic).

Totally Enclosed Treatment Facility – A facility for the treatment of hazardous waste that is directly connected to an industrial production process and that is constructed and operated so as to prevent the release of hazardous waste into the environment during treatment. An example is a pipe in which waste acid is neutralized.

Toxicity Characteristic Leaching Procedure (TCLP) – A testing procedure used to determine whether a waste is hazardous. The procedure identifies waste that might leach hazardous constituents into groundwater if improperly managed.

Treatment, Hazardous Waste – Any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such hazardous waste, or so as to render such hazardous waste nonhazardous/less hazardous, or so as to recover energy or material resources from the hazardous waste; safer to transport, store or dispose of; or amenable for recovery, amenable to storage, or reduced in volume.

Universal Waste – Any of the following hazardous wastes that are managed under the universal waste requirements of 40 CFR Part 273: batteries, pesticides, mercury-containing equipment, and lamps. Some States may have State-specific universal wastes defined as well.

Waste Code, Hazardous Waste – The number (or code) assigned by the EPA to each hazardous waste listed in 40 CFR Part 261, Subpart D and to each characteristic identified in 40 CFR Part 261, Subpart C. The codes consist of one letter (D, F, P, U, or K) and three numbers.

Waste Minimization – The reduction, to the extent feasible, of hazardous waste that is generated or subsequently treated, stored, or disposed. It includes any source reduction or recycling activity undertaken by a generator that results in: (1) the reduction of total volume or quantity of hazardous waste; (2) the reduction of toxicity of hazardous waste; or (3) both, as long as the reduction is consistent with the goal of minimizing present and future threats to human health and the environment.

Wastewater Treatment Unit – A tank or tank system that is subject to regulation under either Section 402 or 307(b) of the Clean Water Act, and that treats or stores an influent wastewater that is hazardous waste, or that treats or stores a wastewater treatment sludge that is hazardous.

WHERE TO GET MORE HELP

Your business may also be regulated by other sections of the Code of Federal Regulations (CFR). You may want to investigate the following CFRs:

- Handling PCBs (40 CFR Part 761)
- Toxic Release Inventory (TRI) Reporting (40 CFR Part 372)
- Domestic Sewage Waste Disposal Reporting (40 CFR Part 403)
- Shipping Hazardous Materials/DOT Regulations (49 CFR Parts 171-180)

STATE HAZARDOUS WASTE MANAGEMENT ASSISTANCE



For information regarding outreach events or further assistance in understanding the hazardous waste rules applicable to you, or your compliance with them, contact:

Hazardous Waste
Inspections & Compliance Unit
Arizona Dept. of Environmental Quality
1110 W. Washington St. Phoenix, AZ 85007
(800) 234-5677

For information regarding outreach events or further assistance with understanding ADEQ's Pollution Prevention Program, contact:

Pollution Prevention Program
Arizona Dept. of Environmental Quality
1110 W. Washington St.
Phoenix, AZ 85007
(800) 234-5677



To obtain the regulations, statutes, and rules referred to in this publication, contact the following or check out the websites listed.

Code of Federal Regulations:
Contact the Government Printing Office, (202) 512-1800;
www.ecfr.gov

Arizona Revised Statutes:
Contact the Arizona State Bar Association, (602) 252-4804;
<http://www.azleg.state.az.us/ars/49/title49.htm>

Arizona Administrative Code (AAC):
Contact the Secretary of State, (602) 542-4086,
http://www.sos.state.az.us/public_services/Table_of_contents.htm

EPA AND OTHER FEDERAL RESOURCE CENTERS



EPA Region 9/Hazardous Waste Management Division
75 Hawthorne Street
San Francisco, CA 94105
Phone: (415) 947-8708
Library: (415) 744-1510 www.epa.gov/region09/

RCRA/Superfund/LUST Hotline
1725 Jefferson Davis Highway
Arlington, VA 22202
Phone: (800) 424-9346 or TDD (800) 553-7672
Fax: (703) 486-3333

Answers questions on matters related to solid waste, hazardous waste, and underground storage tanks. Also can be used to find and order EPA publications.

Small Business Ombudsman Clearinghouse/Hotline
U.S. EPA/Small Business Ombudsman (1230C)
401 M Street SW Washington, DC 20460
Phone: (800) 368-5888
Fax: (703) 305-6462

Helps private citizens, small businesses, and smaller communities with questions on all program aspects within EPA.

Pollution Prevention Information Clearinghouse (PPIC)
PPIC-EPA
401 M Street SW (3404) Washington, DC 20460
Phone: (202) 566-0799
Fax: (202) 566-0794

E-mail: PPIC@epamail.epa.gov
Provides a library and an electronic bulletin board (accessible by any PC equipped with a modem) dedicated to information on pollution prevention.

APPENDIX A: FORMS/STATEMENTS

HAZARDOUS WASTE FACILITY REGISTRATION FORMS & FACILITY ANNUAL REPORT (FAR)

Registration Forms are mailed annually to CESQGs with EPA ID numbers, SQGs, LQGs, TSDFs, resource recovery facilities, and transporters. It will cover your registration for the current year, but is based on the highest amount of hazardous waste you generated in any one month of the previous year. This form acts as the Facility Annual Report (FAR) for CESQGs and SQGs. LQGs must submit a separate form, EPA Form 8700-13 Hazardous Waste Report, to ADEQ as the FAR and must report their hazardous waste activities through EPA's electronic software. These forms are due by March 1 of each year.



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street, Phoenix, Arizona 85007
(602) 771-2300 www.azdeq.gov

Janice K. Brewer
Governor



Henry R. Danish
Director

Waste Programs Division, Facility Registration Form
Facility Annual Report (FAR)

To: **Responsible Party Name** _____ Facility _____
Street Address _____ EPA ID # _____
City, State, Zip _____ Period Covered _____
 _____ Account No _____
 _____ Reference No. _____

Pursuant to A.R.S. 49-929 and 930, all hazardous waste transporters, hazardous waste generators, hazardous waste resource recovery facilities and hazardous waste treatment, storage and disposal facilities shall register annually, with the Arizona Department of Environmental Quality and pay an annual registration fee. Maximum annual payments of fees and taxes by mines are specified in A.R.S. 49-282.01. Maximum annual payments of fees and taxes by resource recovery facilities are specified in A.R.S. 49-930 B.

Please keep a copy for your records.

Facility Address: _____

Read carefully and check all boxes that apply. Enter quantities in tons on lines G and H if they apply.

A. Did not generate hazardous waste during 2013

B. Conditionally exempt small quantity hazardous waste generator which generated less than 100 kg (220 lbs.) of hazardous waste in each month during 2013

C. Small quantity hazardous waste generator which generated between 100 kg and 1,000 kg (220 lbs. and 2,200 lbs.) of hazardous waste in any month during 2013

D. Large quantity hazardous waste generator which generated more than 1,000 kg (2,200 lbs.) or more than 1 kg (2.2 lbs.) of acute hazardous waste in any month during 2013

E. Hazardous waste transporter: did not transport in Arizona during 2013

F. Hazardous waste transporter: did transport in Arizona during 2013

G. Hazardous waste treatment, storage and disposal facility: tons received during 2013 _____

H. Hazardous waste resource recovery facility: tons received during 2013 _____

The due date for returning this form is February 15.

Name (print) _____ Phone _____

Signature _____ Date _____

If you have questions about this form, call Dee Woodard, (602) 771-4232, or toll-free within Arizona at (800) 234-5677 extension: 771-4232.

Mall To: Arizona Department of Environment Quality
PO Box 18228
Phoenix, AZ 85005

DEQR0022DMH 07/12/2013

GENERATION FORMS

Generation Forms are mailed to SQGs annually and to LQGs quarterly. It covers the amount of hazardous waste you generated in the preceding year for SQGs or the preceding three months for LQGs.



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street Phoenix, Arizona 85007
(602) 771-2300 www.azdeq.gov

Henry R. Danish
Director

Generation Activity Form

Generator Customer Name: _____
 EPA ID: _____
 Period Covered: _____
 Account No.: _____
 Reference No.: _____

Apply for the generator listed below and return to the Arizona Department of Environmental Quality hazardous waste generation and disposal fees as required under A.R.S. 49-931. The DEQ large-quantity generators quarterly and small-quantity generators annually. The person shall affix the postmark on the invoice.

Keep a copy for your records.

Generated and shipped off-site: _____

B. Number of tons generated and retained on-site: _____

NOTE: (1 ton = 2000 pounds)

* **RETAINED ON-SITE (line B)** means that the waste is generated and disposed of at the same facility or that the waste is shipped to another facility which is owned or operated by the generator.

Tonnage figures must agree with manifests submitted to ADEQ and with your Facility Annual Report.

Name (print) _____ Phone Number _____

Signature _____ Date _____

If you have questions about this form, call Cathy Brock-Charney at (602) 771-4133 or toll-free within Arizona at (800) 234-5677 extension: 771-4133.

Mall To: Arizona Department of Environment Quality
PO Box 18228
Phoenix, AZ 85005

DEQR0023MM22 10/31/2013

APPENDIX A: FORMS/STATEMENTS (Cont.)

REGISTRATION/GENERATION FEE STATEMENTS

Once completed Registration & Generation Forms are received, ADEQ will generate and mail a statement to the owner or operator of the facility. The total amount due could include other fees owed to ADEQ and should be paid by the Payment Due Date, or the balance will be subject to interest.



Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street Phoenix, Arizona 85007
(602) 771-2300 www.azdeq.gov



Henry R. Darwin
Director

Bill ID:
Customer ID:

Responsible Party Name

Billing Period:
Payment Due Date:

Street Address
City, State, Zip

ACCOUNT SUMMARY

Account ID	Fee Code	Balance Carried Forward	Current Amount	Payments / Credits	Total Amount
B2005042	HZW Hazardous Waste	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL:		\$0.00	\$0.00	\$0.00	\$0.00

AGING SUMMARY

Current Charges	(1-30 days)	(31-60 days)	(61-90 days)	(91-120 days)	(Over 120 days)	Balance
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

* All payments received and not specifically allocated on the REMITTANCE ADVICE will be applied to the oldest amount due until fees are paid and then applied to interest.

Retain for your record

APPENDIX A: FORMS/STATEMENTS (Cont.)

REGISTRATION/GENERATION FEE INVOICES

Account Details for Account ID: B200

Fee Code: HZW Hazardous Waste

Place Name:

Charges Since 10/21/2013: \$651.38

Interest Charges Since 10/21/2013: \$0.00

Balance Carried Forward: -\$50,124.93

Payments: \$0.00

Other Credits: \$0.00

TOTAL: -\$49,473.56

AGING SUMMARY

Current Charges	(1-30 days)	(31-60 days)	(61-90 days)	(91-120 days)	(Over 120 days)	Balance
\$0.00	\$0.00	\$0.00	\$0.00	-\$176.04	-\$49,297.52	-\$49,473.56

CHARGES SINCE LAST BILL

Invoice Period	Invoice Number	0000163950X
Item Code	Description	Date
HWG	HWG - HWG - Q2 2013	11/18/2013
		Total: \$651.38

Program Contact:
 Name: David Janke
 Phone: (602) 771-4173 or (800) 234-5677

Retain for your record

DEQR0016 V1.47.01 11/22/2013 Page of

DEPARTMENT OF ENVIRONMENTAL QUALITY



Phoenix, Arizona 85007
 www.azdeq.gov

Henry R. Darwin
 Director

Billing Period: _____
 Payment Due Date: _____

Advice **Bill ID:** _____
 Customer ID: _____

Invoice Number	Amount Due	Payment Enclosed
TOTAL:	\$0.00	

For ADEQ use only:

Check #: _____

Received Date: _____

Post Marked: _____

Site Code: _____

Entered By: _____

DEQR0016 V1.47.01 Page of

APPENDIX B: HAZARDOUS WASTE GENERATORS CHECKLIST

These questions are geared toward the federal requirements for SQGs but may be helpful for other hazardous waste generators. Use them to help prepare for a visit from a federal, state, or local agency.

YES **NO**

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Do you have documentation on the amount and kinds of hazardous waste that you generate and how you determined that they are hazardous? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Do you have a U.S. EPA ID number? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Do you ship wastes off-site? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. If so, do you know the names of the transporter and the designated TSDf that you use? |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Do you have copies of completed manifests used to ship your hazardous wastes over the past three years? Have you sent copies with all three signatures to ADEQ? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Are the manifests filled out correctly? |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Have the manifests been signed by the designated TSDf and transporter? |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. If you have not received your signed copy of the manifest from the TSDf, have you filed an exception report? |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Is your hazardous waste stored in proper containers or tanks? |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Are the containers or tanks properly dated and/or marked? |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. Have you complied with the management requirements described in this document? |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. Have you designated an emergency coordinator? |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. Have you posted emergency telephone numbers and the location of emergency equipment? Is your Emergency Coordinator's name correct? |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. Are your employees thoroughly familiar with proper waste handling and emergency procedures? |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. Do you understand when you need to contact the National Response Center and ADEQ? |
| <input type="checkbox"/> | <input type="checkbox"/> | 16. Do you store your waste for no more than 180 days, or 270 days if you ship your waste more than 200 miles? |



