North Dakota

HAZARDOUS WASTE COMPLIANCE GUIDE

NORTH Dakota | Environmental Quality

Be Legendary.™

Department of Environmental Quality
Division of Waste Management

2020
Seventeenth Edition

NORTH DAKOTA
HAZARDOUS WASTE COMPLIANCE GUIDE

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Introduction

One of the by-products of our industrial society is waste, some of which is hazardous to human health or the environment. In response to public concern over the result of improper handling and disposal of chemical wastes, the U.S. Congress enacted the Resource Conservation and Recovery Act (RCRA) in 1976. In 1980, Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). In November 1984, the Hazardous Waste and Solid Waste Amendments (HSWA) to RCRA were signed into law. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) in 1986.

Under these laws, the U.S. Environmental Protection Agency (EPA) was authorized to develop and oversee a nationwide program to regulate hazardous waste management. In 1981, the State of North Dakota enacted the Hazardous Waste Management Law under Chapter 23.1-04 of the North Dakota Century Code (NDCC) and under authority of this law promulgated the State Hazardous Waste Management Rules under Article 33.1-24 of the North Dakota Administrative Code (NDAC). These regulations provide:

- A definition of hazardous waste, including lists of hazardous chemical wastes;
- Handling requirements for generators and transporters of hazardous waste;
- A manifest system to track hazardous waste from generation point to final disposal cradle to grave
- Permit requirements for facilities that treat, store, and/or dispose of hazardous waste; and,
- Requirements for State hazardous waste programs.

EPA delegated authority to many states to operate their own hazardous waste regulatory programs. To be authorized, individual State programs must be at least as stringent as the Federal program. After receiving authorization, State programs operate in place of the Federal program. North Dakota received final authorization to regulate hazardous waste management in 1984. The program was administered by the North Dakota Department of Health until April of 2019, when the Environmental Health Section split off from the Department of Health to form the Department of Environmental Quality (the Department).

The Department is separated into five divisions; the Division of Waste Management, the Division of Air Quality, the Division of Municipal Facilities, the Division of Water Quality, and the Division of Chemistry. The Hazardous Waste Program (the Program) within the Division of Waste Management is the hazardous waste regulatory program for the state of North Dakota.

In order to retain its authorization, the Program regularly updates its rules to incorporate changes

made in the Federal regulations. As the Federal hazardous waste program is revised, there may be Federal regulations which have not yet been included in the North Dakota Hazardous Waste Management Rules. During this time generators, transporters, and treatment, storage, or disposal facilities must comply with the requirements of all applicable State rules and any Federal rules not yet incorporated.

Compliance with Federal, State, and local regulations can sometimes be costly. However, the environmental and financial consequences of noncompliance are much more expensive. Because these regulations are complex, the Program developed this guidebook to assist North Dakota's generators of hazardous waste in complying with the North Dakota Hazardous Waste Management Rules.

Information on the North Dakota Hazardous Waste Program is available on our web site: deq.nd.gov/WM/

Section One: Compliance in Ten Steps

The Program (like other states) developed a systematic approach to hazardous waste management called "Compliance in Ten Steps". The ten steps are as follows:

1. Identify waste streams and generator status;
2. Obtain a state/EPA site identification number;
3. Containers, labels and markings, and placards;
4. Storage and accumulation;
5. Transportation and disposal;
6. Manifests;
7. Emergency planning and response;
8. Personnel training;
9. Reporting requirements; and
10. Records

STEP 1: Identify Waste Streams and Generator Status.

A hazardous waste is a subset of waste that poses a substantial threat to human health or the environment. North Dakota Hazardous Waste Management Rules require a person who generates a solid waste to determine if the waste is a hazardous or non-hazardous waste.

Table 1 "Typical Hazardous Wastes Generated by Small Businesses" will give you an idea of which waste streams may be hazardous.

Table 1

Typical Hazardous Wastes Generated by Small Businesses			
Business Type	**Generation Processes**	**Waste Types**	**Waste Codes**
Dry cleaning and Laundry Facilities	Commercial dry cleaning processes	Still residues from solvent distillation, spent filter cartridges, cooked powder residues	D001, D039, F002
Construction	Painting prep and operations, carpentry and floor work, specialty contracting, heavy construction, wrecking and demolition, vehicle and equipment maintenance	Ignitable wastes, toxic wastes, solvent wastes, paint wastes, off-specification used oil, acids/bases	D001, D002, D003, F001-F005
Vehicle Maintenance	Degreasing, rust removal, painting prep and operations, spray booth, spray guns, brush cleaning, paint removal, tank cleanout, lead/acid batteries	Acids/bases, solvent wastes, ignitable wastes, toxic wastes, paint wastes, used batteries, off-specification used oil	D001, D002, D006, D007, D008, D018, F001-F005
Printing and Allied Industry	Plate prep, stencil prep for screen printing, photoprocessing, printing, cleaning	Acids/bases, heavy metal wastes, solvent wastes, toxic wastes, used ink	D002, D006, D007, D008, F001-F005
Equipment Repair	Degreasing, rust removal, painting prep and operations, spray booth, spray guns, brush cleaning, paint removal	Acids/bases, solvent wastes, ignitable wastes, toxic wastes, paint wastes, used batteries, off-specification used oil	D001, D002, D006, D007, D008, D018, F001-F005
Educational and Vocational Shops	Auto engine and body repair, metalworking, graphic arts-plate prep, woodworking	Ignitable wastes, solvent wastes, acids/bases, paint wastes	D001, D002, F001-F005

A: Evaluate Waste Streams

The hazardous waste determination for each solid waste must be made at the point of waste generation, before any dilution, mixing, or other alteration of the waste occurs. The determination also must take place before the waste experiences changes, or has the potential to experience changes, in properties that would affect the RCRA classification as a result of exposure to the environment. Listed below are three procedures to be used to evaluate a given waste:

First, determine if the waste is not regulated under Section 33.1-24-02-04 NDAC.

1. Exempt Wastes

a. Some wastes are exempted from regulation as hazardous waste. Examples of exempted waste include:

- Household refuse
- Sewage
- Fly and bottom ash
- Oilfield wastes
- Irrigation return flows
- Mining overburden
- Scrap metal
- Nuclear materials
- North Dakota Pollution Discharge Elimination System (NDPDES)-permitted discharges
- Used oil (See Section 2, Topic 3)
- Some solvent-contaminated wipes (See Section 2, Topic 1)

NOTE: This is not a complete list of exemptions. Contact the Program for further information.

b. Empty containers and liners used to hold a hazardous waste (except a compressed gas or acutely hazardous (P) waste) are exempt if all the removable products or wastes have been removed from the container using common practices (i.e. pumping or pouring) and one of the following conditions is met:

- No more than one inch of residue remains on the bottom;

- No more than 3% by weight of the waste remains inside of a container having a total capacity of 119 gallons or less; or

- No more than 3/10's of 1% by weight of the waste remains inside of a container having a total capacity greater than 119 gallons.

If a container held compressed gas, it is considered empty when internal pressure approaches atmospheric pressure. If a container held an acutely hazardous (P) waste, contact the Program for more information.

<u>Second</u>, determine if the waste is a listed hazardous waste in Sections 33.1-24-02-15, 33.1-24-02-16, or 33.1-24-02-17, or 33.1-24-02-18 NDAC, which references the non-specific source (F), specific source (K), and commercial chemical product wastes (P and U).

2. Listed Hazardous Wastes

Wastes listed in the North Dakota Hazardous Waste Management Rules are included because they meet one or more of the following criteria: the waste exhibits any of the characteristics (ignitability, corrosivity, reactivity, or toxicity), the waste has been found to be fatal to humans in low doses or significantly contributing to an increase in illness, or the waste contains any toxic constituent that if the waste is improperly managed is capable of posing a hazard to human health or the environment.

Listed hazardous wastes are split into the following three categories:

a. Non-specific sources (F wastes)

Wastes that are generated but are not distinct to any certain manufacturing process are listed as F wastes. Examples include:

- Waste solvents and distillation bottoms from solvent recovery;
- Electroplating wastes (e.g., sludges, bath solutions, etc.); and,
- Other non-specific sources.

b. Specific sources (K wastes)

Wastes produced during the manufacturing process are listed as K wastes, such as from the manufacture of:

- Pesticides
- Explosives
- Inks and inorganic pigments
- Organic chemicals
- Inorganic chemicals
- Wood preservatives
- Petroleum refining
- Iron and steel

c. Discarded products, off-spec products, spill residues, and acute hazardous waste (P or U wastes).

Wastes such as commercial chemical products, manufacturing chemical intermediates, off-specification commercial chemical products or manufacturing chemical intermediates, mixtures of the chemicals listed and spill residues may be classified as P- or U-listed wastes.

Some listed hazardous wastes are subject to additional regulation as acute hazardous waste. If you suspect that you have or generate an acute hazardous waste, contact the Program to confirm if the waste is acute and to discuss additional management

procedures.

<u>Third</u>, for the purposes of compliance, the generator must determine whether the waste is identified as a characteristic hazardous waste (D) in Sections 33.1-24-02-10 through 33.1-24-02-14 NDAC by:

-Testing the waste in accordance with the methods in Chapter 33.1-24-02 NDAC, or by other Department approved equivalent methods; or

-Applying knowledge of the hazardous characteristic of the waste in light of the materials or processes used.

3. Characteristic Hazardous Wastes (D wastes)

There are four categories of characteristic hazardous waste.

a. ***Ignitability***. A liquid waste is considered ignitable if it has a flashpoint of 140ºF or less. Gases are considered to be ignitable if classified as ignitable compressed gases or oxidizers. A solid is ignitable if it can spontaneously catch fire and burns so vigorously that it creates a hazard. Many solvents are ignitable. Ignitable hazardous wastes have the waste code D001.

b. ***Corrosivity***. Any aqueous (water-based) waste having a pH of less than or equal to 2.0 or greater than or equal to 12.5 is considered corrosive. A liquid able to corrode steel at a rate of 3 inch per year is also corrosive. Strong acids and bases are examples of corrosive materials. Corrosive hazardous wastes have the waste code D002.

c. ***Reactivity***. Wastes that are unstable or explosive, that react violently with water or air, that form potentially explosive mixtures with water or air, and that can release toxic gases (such as hydrogen cyanide or hydrogen sulfide) are considered reactive. Reactive hazardous wastes have the waste code D003.

d. ***Toxicity***. A waste exhibits the characteristic of toxicity if, using the toxicity characteristic leaching procedure (TCLP), the waste or an extract of the waste contains any contaminants at concentrations equal to or greater than those listed in Table 2.

Some waste streams that may exhibit a toxicity characteristic include:

- Paints
- Sludges
- Inks
- Greases
- Pesticides
- Adhesives
- Solvents
- Metals

If you generate any listed or characteristic wastes as described in parts 2 and 3, **you are a generator of hazardous waste**. You must manage that waste in accordance with the North Dakota Hazardous Waste Management Rules. If you are uncertain about your waste determination, contact the Program.

TABLE 2

HAZARDOUS CONTAMINANT LEVELS FOR TOXICITY CHARACTERISTIC

EPA HW #	Contaminant	Regulatory Level (mg/l)
D004	Arsenic	5.0
D005	Barium	100.0
D018	Benzene	0.5
D006	Cadmium	1.0
D019	Carbon Tetrachloride	0.5
D020	Chlordane	0.03
D021	Chlorobenzene	100.0
D022	Chloroform	6.0
D007	Chromium	5.0
D023	o-Cresol	200.0[a]
D024	m-Cresol	200.0[a]
D025	p-Cresol	200.0[a]
D026	Cresol	200.0[a]
D016	2,4-D	10.0
D027	1,4-Dichlorobenzene	7.5
D028	1,2-Dichloroethane	0.5
D029	1,1-Dichloroehtylene	0.7
D030	2,4-Dinitrotoluene	0.13[b]
D012	Endrin	0.02
D031	Heptachlor (& its epoxide)	0.008
D032	Hexachlorobenzene	0.13[b]
D033	Hexachlorobutadiene	0.5
D034	Hexachloroethane	3.0
D008	Lead	5.0
D013	Lindane	0.4
D009	Mercury	0.2
D014	Methoxychlor	10.0
D035	Methyl Ethyl Ketone	200.0
D036	Nitrobenzene	2.0
D037	Pentachlorophenol	100.0
D038	Pyridine	5.0[b]
D010	Selenium	1.0
D011	Silver	5.0
D039	Tetrachloroethylene	0.7
D015	Toxaphene	0.5
D040	Trichloroethylene	0.5
D041	2,4,5-Trichlorophenol	400.0
D042	2,4,6-Trichlorophenol	2.0
D017	2,4,5-TP (Silvex)	1.0
D043	Vinyl Chloride	0.2

[a] If o-, m-, and p-cresol cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

[b] Quantification limit is greater than the calculated regulatory level. The quantification limit therefore becomes the regulatory level.

4. Other Regulated Wastes

a. Asbestos abatement generates two regulated wastes: the asbestos contaminated materials and airborne particulate materials. For more information regarding asbestos removal or disposal contact the Division of Waste Management.

b. Radioactive wastes are not regulated by the North Dakota Hazardous Waste Management Rules. These wastes are regulated under Article 33-10 NDAC, Radiological Health Rules. For disposal methods of radioactive wastes, please contact the Division of Waste Management.

c. Wastes containing polychlorinated biphenyls (PCBs) are not regulated under the North Dakota Hazardous Waste Management Rules but are regulated under 40 CFR 761 Toxic Substance Control Act (TSCA), CERCLA (Superfund) and the Clean Water Act (CWA). Under Section 33.1-24-02-04.7 NDAC, PCBs should not be included in hazardous waste biennial reporting. If you suspect you have PCBs, contact the Program for proper management and disposal procedures. Additional information about PCBs is contained in Section 2, Topic 9.

d. Many chlorofluorocarbons (CFCs) are not regulated under the Hazardous Waste Management Rules but are regulated under the Air Pollution Control Rules. However, some CFCs are regulated under both. Many CFCs may not be released to the atmosphere because of the impacts CFCs have on the ozone. An example of an ozone-depleting CFC is Freon 12, a refrigerant normally found in refrigerators and automobile air conditioners. Questions regarding the disposal of CFCs may be addressed to either the Program or the Division of Air Quality.

B: Calculating Generator Status

The level of regulation which a generator must follow is determined by the amount of hazardous waste generated. The generator status is based on the total amount of all hazardous wastes generated during the month. Be careful to add pounds to pounds and kilograms to kilograms. If your waste production changes seasonally, your generator status may change. It is recommended that you manage your hazardous waste based on your routine highest monthly generation status.

Tables 3 and 4 describe the three categories of generators and which hazardous wastes must be counted in order to determine your generator status.

Table 3 – Categories of Generator Status

Generator category	Quantity of acute (P listed) hazardous waste generated in a calendar month	Quantity of a non-acute (D characteristic, F, K, U listed) hazardous waste generated in a calendar month	Quantity of residues from a cleanup of acute (P listed) hazardous waste generated in a calendar month
Large quantity generator (LQG)	Greater than 1 kg (2.2 lbs)	Any amount	Any amount
Large quantity generator (LQG)	Any amount	Greater than or equal to 1,000 kg (2,200 lbs)	Any amount
Large quantity generator (LQG)	Any amount	Any amount	Greater than 100 kg (220 lbs)
Small quantity generator (SQG)	Less than or equal to 1 kg (2.2 lbs)	Between 100 kg (220 lbs) and 1,000 kg (2,200 lbs)	Less than or equal to 100 kg (220 lbs)
Very small quantity generator (VSQG)	Less than or equal to 1 kg (2.2 lbs)	Less than or equal to 100 kg (220 lbs)	Less than 100 kg (220 lbs)

Table 4 – Countable/Noncountable Wastes

Countable wastes. A generator must count all LISTED and CHARACTERISTIC wastes as previously defined that:	Noncountable waste. A generator does not have to count wastes that:
- Accumulates on-site for any period of time prior to subsequent management. - Are packaged and then transported off-site. - Are placed directly in a regulated on-site treatment or disposal unit. - Are generated as still bottoms or sludges and removed from product storage containers or tanks. - Are placed into satellite accumulation containers. - Are universal wastes which are managed as hazardous wastes.	- Are specifically exempted from counting. - Are left as residue in conventionally emptied containers or in the bottom of product storage tanks. - Are reclaimed continuously **without** storing prior to being reclaimed. - Are managed in an elementary neutralization unit, totally enclosed treatment unit, or a wastewater treatment unit. - Are discharged directly to a POTW without being stored or accumulated first. - Are already counted once in a calendar month, treated on-site or reclaimed and reused. - Are managed as universal wastes.

The next nine steps outline requirements hazardous waste generators must follow to be in compliance with the North Dakota Hazardous Waste Management Rules. Generators may use Table 5 below to see what requirements they may have. The Program advises all generators to be aware of the applicable regulations, and to read each step of this guide closely.

Table 5 - Quick Reference

	VSQG	SQG	LQG
Hazardous waste determination	✞	✞	✞
State/EPA ID number		✞	✞
Storage quantity and/or time limits	✞	✞	✞
Storage standards		✞	✞
Acceptable facilities for off-site management of wastes specified	✞	✞	✞
Manifest		✞	✞
Biennial Report	*	✞	✞
Training, contingency plan and emergency procedures	**	✞	✞
DOT requirements		✞	✞
Land disposal restrictions		✞	✞
Universal waste requirements	***	✞	✞
Used Oil Requirements	✞	✞	✞

* VSQGs are not required to complete biennial reports, however, the Program occasionally sends out reporting forms to VSQGs in order to maintain our database.

** Although VSQGs are not required by the North Dakota Hazardous Waste Management Rules to train their employees and have a contingency plan, it is in their best interests to discuss these issues with their employees.

*** VSQGs have the option of managing their universal wastes as either a universal waste or as a hazardous waste. The Program cautions those VSQGs who manage these wastes as hazardous waste to ensure that they still meet the exemption criteria of less than 220 pounds per month of total hazardous wastes generated

STEP 2. Obtain a State/EPA ID Number

Businesses that generate hazardous wastes in regulated quantities (220 pounds per month or more) are required to obtain a site identification number. State/EPA ID numbers are site (physical location) specific and are used to identify the facility on manifests, reports, container labels, and other required documents. You may obtain a State/EPA ID number by filing a Notification of RCRA Subtitle C Activity, EPA Form 8700-12. The form is available on our web site. The Department also allows businesses to submit the form electronically through myRCRAid. To register for an account, go to https://rcrainfo.epa.gov/rcrainfoprod, click register and select "Industry User".

A. How to Complete the Form

If you are an SQG or an LQG, you must obtain a State/EPA ID number. Many TSDF's require that VSQG's also have a State/EPA ID number. The notification form and instructions are available on the Programs webpage. The information requirements for form completion include the mailing and location address, facility contact, ownership information, and a description of the regulated activity.

If further assistance is needed, contact the Program. If submitting a paper copy, mail the completed form to:

North Dakota Department of Environmental Quality
Division of Waste Management
1120 28th Ave N, Suite B
Fargo, ND 58102

B. Renotification

SQGs are now required to re-notify the Department as to their generator status every four years. Since SQGs in North Dakota are required to submit biennial reports every two years, this requirement is met and SQGs do not have to submit a separate renotification form.

The responsibility of renotification lies with the generator. The Program suggests that a generator renotify when the company name or ownership changes. Since a State/EPA ID number is site-specific, it will not change for that location. An EPA Form 8700-12 should be filed with the Program showing the changes.

If a company relocates or starts a branch at another location, the Program must be notified of the relocation or new location if this location generates regulated quantities (220 pounds per month or more) hazardous waste. An EPA Form 8700-12 will need to be completed and filed with the Program, and a State/EPA ID number issued for the new location.

If your generator status changes, the Program only requires renotification if the facility

generator status increases. If generator status decreases, it may be in the best interests of the facility to renotify.

If you are a VSQG or an SQG and you are closing your facility an EPA Form 8700-12 should be completed and filed with the Program.

If you are a LQG closing either a waste accumulation unit or your facility, both prior to closing and after conducting closure performance operations under section 33.1-24-03-29(1)(h)(1) an EPA Form 8700-12 must be completed and filed with the Program.

C. Multiple State/EPA ID Numbers

Large companies may be composed of several separate buildings. If these buildings are on contiguous property (not divided by public roads or other property), then the facility may use a single State/EPA ID number. If a company operates several sites which are not on common property, then separate State/EPA ID numbers may be required for each site depending on generator status.

STEP 3: Containers, Labels and Markings, and Placards

A. Containers

Hazardous waste must be stored safely in appropriate containers. The type of container used depends on the type of waste stored. If you are uncertain of what container to use, contact the Treatment Storage and Disposal Facility (TSDF), the Department of Transportation (DOT), or the Program for recommendations.

Requirements for hazardous waste containers include:

- Containers must be made of sturdy, leak-proof materials and must meet DOT specifications for materials and construction. Typically, DOT 1A1 and 1A2 drums are used for hazardous liquid wastes and hazardous solid wastes.

- The container must be made of, or lined with, materials which will not react with the hazardous waste stored inside. For example, use a plastic container for corrosive wastes. Steel containers may be damaged by corrosive wastes, which could lead to a release of hazardous waste.

- All containers holding hazardous waste must be closed during storage, except when it is necessary to add or remove waste.

B. Container Labels and Markings

It is the generator's responsibility to ensure all containers are correctly labeled. There are separate requirements for container labels, markings for storage, and markings for transportation.

Using commercial preprinted hazardous waste labels is one way to meet most requirements for container labeling. When using a preprinted label, some suggestions for filling them out are:

- Complete as much information as possible before attaching to the container;

- Use an all-purpose, indelible felt-tip pen for marking on the label;

- Protect the label from spills by placing the label away from the bung or covering the label with clear plastic tape; and,

- Keep a photocopy of a properly filled out label for each hazardous waste stream generated for reference.

1. Marking for Storage

- Mark with the words "**Hazardous Waste**".
- An indication of the hazards of the contents in the container. You can use any of the following methods: Department of Transportation (DOT) hazard communication labels, Occupational Safety and Health Administration (OSHA) hazard statement or pictogram, National Fire Protection Association (NFPA) chemical hazard label or RCRA characteristic. Labeling should occur when the waste is first placed in the container.

- Each container must be clearly marked with an accumulation start date. The accumulation start date is either the date that waste is first placed (accumulated) in the container or the date the container is filled and placed in storage if the container meets the requirements of a satellite accumulation container, see Step 4.E.

Generic label example

2. Marking for Transportation

49 CFR Part 172 dictates how to properly mark and label containers for transportation. Each hazardous waste container must be labeled and clearly marked with the following information:

- Proper shipping name and UN/NA number (found in 49 CFR 172.101).
- Generator name and address.
- Manifest document number.
- Hazardous Waste Warning. This warning states, Hazardous Waste Federal Law Prohibits Improper Disposal. If found, contact the nearest police, public safety authority, or the U.S. EPA.
- Hazard labels. Hazard labels are 4" by 4" labels stating information such as FLAMMABLE, CORROSIVE, or OXIDIZER.

C. Placards

Placards are large labels that are placed on transport vehicles. It is the generators responsibility to provide the transporter with correct placards. However, most transporters carry an assortment of vehicle placards. The placarding information can also be found in 49 CFR Part 172.

STEP 4: Storage and Accumulation

Once a waste is generated at a facility it must be safely accumulated and properly stored. Storage and accumulation of waste are a primary concern. Proper accumulation and storage of hazardous waste ensures that the wastes are not mismanaged or accidentally or intentionally disposed. All generators are required to properly manage and handle storage containers to ensure that there are no leaks to the environment.

All storage containers must be properly identified, as stated in Step 3. Employees must be familiar with proper waste management of the wastes they generate and should know what to do when the container is full.

A. General Storage Requirements

1. A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

2. Containers, whether in storage or satellite accumulation, must be properly marked and labeled. See item 3 in **Section E. Satellite Accumulation** for label and marking

requirements.

3. Containers must not be stored or handled in any manner that may cause them to rupture, leak, corrode, or otherwise fail.

4. The storage area must maintain sufficient aisle space to allow unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the facility operation in an emergency.

5. SQGs and LQGs that have containers of hazardous waste in storage must inspect those containers weekly, and an inspection log must be kept. The containers must be visually inspected for leaks, structural integrity, container deterioration, and deterioration of the containment system. An example of a container inspection log is located in the back of this guidebook.

6. Incompatible wastes, or incompatible wastes and materials must not be placed in the same container. Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste. Storage of incompatible wastes must be separated by dikes, berms, walls, or other devices.

7. Ignitable and/or reactive wastes generated by LQGs must be stored at least 50 feet away from the facility property line, unless a written approval is obtained from the authority having jurisdiction over the local fire code allowing hazardous waste accumulation to occur within this restricted area. A record of the written approval must be maintained as long as ignitable or reactive hazardous waste is accumulated in this area.

8. Wastes may only be stored on-site in limited quantities for a limited time dependent on your generator status. Table 6 illustrates time and accumulation limits for each generator status.

9. Different regulations apply if you store your hazardous waste in tanks. Contact the Program for information and regulatory requirements.

B. Containment Standards

1. A container storage area must be designed and operated in accordance with the following items:

   - The underlying base must be free of cracks and gaps, and be sufficiently impervious to contain leaks, spills, and accumulated precipitation.

   - The base must be sloped or designed and operated to drain and remove leaks, spills, and precipitation to a collection system unless the containers are elevated or are otherwise protected from contact with accumulated liquids.

- The containment system must be designed to have a capacity of 10 percent of the total volume of containers or the total volume of the largest container stored within that system, whichever is greater.

- The system must be designed to prevent run-on.

- Accumulated material must be removed from the collection system in a timely manner to prevent overflow.

2. Storage areas holding containers with no free liquids are not required to have secondary containment systems provided that (1) the storage area is sloped or otherwise designed and operated to remove precipitation; or (2) the containers are elevated or otherwise protected from contact with accumulated liquid.

C. Storage Quantity and Time Limits

The quantities of wastes that may be accumulated on-site by generators varies with the generator status and the distance to the TSDF facility. Table 6 gives a brief explanation of the quantity and time limits.

D. Storage Time Limit Extensions

If your hazardous waste cannot be shipped off-site within the specified time limit, you may request a storage time extension. If you need to request an extension, the request must be in writing, addressed to the Division of Waste Management, Hazardous Waste Program.

The letter must explain why the extension is needed, detail the types and quantity of waste the extension is requested for, and describe the anticipated schedule for shipping of the waste. The extensions approval is based on the adequacy of the reasons presented in the extension request. Obtaining the extension is very important. Companies storing wastes in excess of the time and accumulation limits are operating an unpermitted storage facility, and as such are subject to enforcement actions.

E. Satellite Accumulation

Many generators produce one or more waste streams which accumulate very slowly. In these cases, compliance with the 90-day or 180-day accumulation storage time may be economically difficult, since the containers may not be full when the time limit is up. The Program allows for longer accumulation times under what is called “satellite accumulation”.

Containers used in satellite accumulation of hazardous waste must meet the following criteria to qualify as satellite accumulation points:

1. The container is stored at or near the point of generation where the wastes initially

accumulate and is under the control of the operator of the process generating the waste;

2. No more than 55 gallons of hazardous waste or one quart of acutely hazardous waste per waste stream may be accumulated at the site;

3. The container is marked with the words "Hazardous Waste" and indication of the hazards of the contents in the container. You can use any of the following methods: Department of Transportation (DOT) hazard communication labels, Occupational Safety and Health Administration (OSHA) hazard statement or pictogram, National Fire Protection Association (NFPA) chemical hazard label or RCRA characteristic. Labeling should occur when the waste is first placed in the container.

4. The container is in good condition and is compatible with the accumulated waste;

5. The container is kept closed, except when it is necessary to add or remove waste; and,

6. Once full the drum must be moved to a storage area within three (3) consecutive calendar days; and

7. During the three (3) consecutive calendar-day period, an accumulation start date must be clearly marked on the container when it is full and placed in storage.

A generator may have more than one satellite accumulation site throughout the facility if hazardous waste is generated from more than one process. A satellite accumulation point may contain more than one 55-gallon waste container if distinct waste streams are being separately accumulated.

Table 6 - Quantity and Time Limits

Generator Category	Storage Limit	Shipping Schedule
VSQG	1000 kg (2200 lbs); if exceeded, generator is regulated at next higher category.	Less than 1000 kg may be stored indefinitely. Once 1000 kg is accumulated, the waste must be shipped off-site within 180 days, or 270 days if TSDF is located more than 200 miles distant.
SQG	6000 kg (13200 lbs); if exceeded, generator is operating an unpermitted storage facility.	All accumulated wastes must be shipped off-site within 180 days of the storage date, or 270 days if the TSDF is located more than 200 miles distant.
LQG	No limit.	All accumulate wastes must be shipped within 90 days of the storage date.

STEP 5: Transportation and Disposal

The generator has a "cradle to grave" responsibility for their hazardous waste, and this includes during transportation and after disposal. Selecting a hazardous waste transporter and treatment, storage, disposal or recycling facility is an important aspect of your waste management program.

Hazardous waste regulations dictate that a generator may not offer their hazardous waste for transport to a transporter who does not have a State/EPA identification number and a current North Dakota Solid Waste Transporter Permit. Though self-transportation is not prohibited, it demands careful consideration.

Many TSDFs offer a full management program where the TSDF prepares a manifest and contracts the transportation. The generator must still review the manifest and ensure that the transporter is properly permitted to operate in North Dakota.

A. Selecting a Transporter

1. Assess your needs. To assist in choosing a transporter, the Program has compiled a searchable list of currently permitted hazardous waste transporters available on our web site available at the following link:

   https://deq.nd.gov/FOIA/SolidWaste/ActiveWasteHaulers.aspx.

The list should only be a starting point. By providing the list, the Program does not suggest or imply that any listed transporters are reputable or are in compliance with applicable State and Federal laws. Before contacting a transporter, consider:

a. Type and quantity of wastes generated.

- Note whether they are solid, liquid, or sludge containers. Check the size, type, and condition. If a container appears to be in poor condition, a transporter may want you to repackage the waste; and,

b. Frequency of shipments.

- Check the frequency you need to have your waste removed. The location of your chosen TSDF may allow you more storage time.

2. Narrow the selection. Ask these questions:

- Can the transporter take the quantity of waste I generate to my chosen TSDF as often as I need it done?;

- What costs are involved?;

- Does the transporter charge layover time?;

- How long has the transporter handled hazardous wastes?;

- Which parts of the manifesting process will the transporter handle? Remember, as a generator, you are ultimately responsible for an accurately filled out manifest;

- Does the transporter have local customers? Contact them to find out what kind of job the transporter is doing; and,

- Contact local trade associations, the Better Business Bureau, and the Chamber of Commerce. See if anyone has registered a complaint against the hauler.

3. Research the transporter. To lessen the chance of waste mismanagement, you want to hire a reputable and responsible transporter who has a working knowledge of the rules. You may ask your potential transporter these questions:

a. What permits or licenses does the transporter have or need?

- **ALL** transporters must have a State/EPA ID number.

- Transporters who pickup from or deliver waste to facilities located in North Dakota must have a current North Dakota Solid Waste Transporters Permit.

b. Are the transporters drivers qualified according to the Federal Motor Carrier Safety Act (FMCSA)?

c. Are drivers trained for safe hazardous waste handling and emergency response procedures?

- Do they carry a copy of the Emergency Response Guidebook?;
- Do they know proper DOT shipping names, UN/NA numbers, hazard classes, shipping numbers, etc.?;
- Do they know how to properly mark and label containers of hazardous waste?;
- Are they familiar with proper loading procedures such as segregating incompatible wastes and container inspection?
- Do they correctly placard the transportation vehicle?
- Do they inspect emergency equipment prior to each trip (fire extinguisher, road flares, reflective triangles)?
- Are they trained in hazardous waste manifesting?

B. Select a Treatment, Storage, and Disposal Facility (TSDF)

Because the generator is ultimately responsible for proper waste disposal, selecting a TSDF is another important part of your waste management program. Proper management of wastes will protect your company from liability for environmental damages resulting from mismanagement.

Ideally, a company representative visiting the TSDF is the best way to assess how your waste will be managed. It is not always possible to do this. Contacting the regulatory agency in the state where the TSDF is located is one way to check on a TSDF's current regulatory status. Here is some guidance on choosing a TSDF.

- Is the facility the final TSDF or a broker? If a broker, ask who is the final facility and how will the final facility treat, store, or dispose of the waste?
- Who are some of the facilities local customers? Check with them on the facilities reputation.
- How will waste be transported to the facility, does the facility have their own vehicles or use a common/contract carrier?
- Can the facility handle your wastes?

- Is there a minimum shipment or minimum shipment charge?

- Is a sample required? If so, what fee is assessed for this sample? If your waste has already been analyzed, is that analysis acceptable? Can waste streams be mixed to reduce costs?

- How long will it take to complete arrangements for a shipment?

- What happens to the waste? is it treated? incinerated? fuel blended? recycled? landfilled?...etc.

Contact the environmental officials in the state where the TSDF is located. Ask the official who inspects that facility:

- Is the facility currently in compliance with State and Federal regulations? If not, ask what ways are they not in compliance.

- Has the facility been fined in the past?

- How often is the facility inspected?

Before arranging to ship hazardous waste to your chosen TSDF:

- Ask for a copy of their certificate of insurance.

- Obtain a contract with the facility for their services. Know where your waste is going, how it is managed, and the disposition of residues, ash, and empty containers**.** Scrutinize the contract for hidden costs, such as per diem charges, safety equipment, miscellaneous testing, extra materials, etc.

C. Disposal of VSQG Wastes

Many VSQGs dispose of their hazardous wastes at a permitted TSDF and ship wastes using permitted hazardous waste transporter; however, a VSQG may transport their hazardous waste off-site to a permitted hazardous waste treatment, storage, disposal facility; a large quantity generator under the control of the operator; a permitted municipal waste landfill; or an industrial waste landfill, contingent upon approval by the local landfill authority. Many permitted municipal waste and industrial waste landfills are no longer accepting these hazardous wastes or are refusing to accept very small quantities of hazardous waste.

D. Household Hazardous Waste Collection Programs

Household hazardous wastes are excluded from the hazardous waste regulations.; however, your community may offer a Household Hazardous Waste (HHW) collection program to dispose of household hazardous waste. These programs can be sponsored by

a business or group of businesses, the city or county. Costs for these programs are sometimes deferred, but this is not always the case. Many programs are specific as to the type, form, and quantity of waste accepted, disposal charges, pre-registration requirements, operation times, etc.

Some of these sponsored activities include exchanges of household waste paints, solvents, certain pesticides, cleaning and automotive products, and other materials. Contact the city, Chamber of Commerce~~,~~ or county in your area, or the Department, for information concerning these programs.

STEP 6. Manifests

A manifest is a multi-copy form used for shipping hazardous waste off-site. This form details information concerning the generator, transporter, TSDF, and the amount and type of waste. It may also be used to ship nonhazardous waste.

A. Why Are Manifests Required

Generators of hazardous waste are considered forever responsible (and liable) for the proper handling and disposal of their waste. They are responsible from the time the waste is generated, "the cradle", to the time it is delivered to the final treatment, storage, or disposal site, "the grave". The manifest is a way to track hazardous waste after it leaves the generation site. This tracking provides protection from mismanagement.

In North Dakota, a generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal must prepare a uniform hazardous waste manifest before transporting the waste off-site. This means the generator is ultimately responsible for the proper completion of the manifest.

B. Manifest

Generators must use the Uniform Hazardous Waste Manifest, EPA Form 8700-22. Instructions for completing the manifest are found in Appendix I of Chapter 33.1-24-03 NDAC which is available on our web site. Each section is labeled with the information required for completing that section. Be careful to:

- Type or firmly print all required information. You are making at least ~~six~~ five copies.

- Enter accurate information for the generator, transporter, and destination facility.

- Enter the appropriate DOT shipping name(s), hazard class, ID number and packing group.

- Enter correct quantities, weights and waste codes.

- Enter a telephone number for emergency 24-hour contact. Many facilities have registered with CHEMTREC as a 24-hour emergency contact, non-emergency telephone number (800) 262-8200.

C. Electronic Manifest System

EPA established a national system for tracking hazardous waste shipments electronically. This system, known as "e-Manifest," will modernize the nation's cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states. EPA launched e-Manifest on June 30, 2018.

EPA established the e-Manifest system according to the Hazardous Waste Electronic Manifest Establishment Act, enacted into law on October 5, 2012. The "e-Manifest Act" authorized the EPA to implement a national electronic manifest system and required that the costs of developing and operating the new e-Manifest system be recovered from user fees charged to those who use hazardous waste manifests to track off-site shipments of their wastes. Manifest data will be publicly available 90-days post-receipt to EPA's RCRAInfo Website.

1. Who Must Register for e-Manifest?

- All receiving facility sites that receive manifested waste under either federal or state law of either the generation state or the destination state are required to register for e-Manifest. Registration is required for user fee invoicing, to submit manifests electronically, and to submit post-receipt data corrections to manifests.

- Generators and transporters must register for e-Manifest if they wish to electronically create and sign manifests in the system. Registration is also required to view manifest records in the system or to submit post-receipt data corrections to manifests, regardless of the type of manifest (i.e., paper versus electronics).

- Brokers must register for e-Manifest if they wish to create manifests electronically for their clients.

2. How to Register for e-Manifest

- Step 1: Obtain an EPA ID number

- Step 2: Assign a Site Manager for your site or EPA ID. The Department encourages each site to register at least two Site Managers before registering for any other permission levels.

- Step 3: Register for e-Manifest in RCRAInfo:

https://rcrainfo.epa.gov/rcrainfoprod/action/secured/login

- Step 4: The Department or Site Manager approves registration.

D. Distribution of Manifest Copies

By rule, only LQGs are required to send manifest copies to the Program. Other generators may also submit manifest copies to the Program. When using the Uniform manifest, you must:

- Give 4 copies to the transporter;
- Retain one copy in your records for a minimum of three years;
- If you are an LQG, send one legible copy of the manifest when first signed by the generator and transporter to the Program; and,
- If you are an LQG, send one legible copy of the returned, designated facility signed manifest to the Program.

E. Exception Reports

SQGs that do not receive a copy of the designated facility-signed manifest within 60 days of shipment are required to submit to the Program one legible copy of the manifest and indicate that the generator has not received confirmation of delivery to the final disposal facility.

If a LQG does not receive a copy of the manifest back from the TSDF within 35 days of shipment, they must contact the transporter, the TSDF, or both, to check on the status of their hazardous waste shipment. If they still do not receive a copy of the manifest within 45 days of shipment, the LQG is required to notify the Program in writing within 60 days of shipment that they have not received a copy of the designated facility- signed manifest. This letter must include a legible copy of the manifest for which the generator does not have confirmation of delivery to the final disposal facility and should state the steps taken to resolve the situation.

F. Land Disposal Restrictions

The North Dakota Hazardous Waste Management Rules Sections 33.1-24-05-250 through 33.1-24-05-300 NDAC pertain to land disposal restrictions. Land disposal is the placement of waste in or on the land and uncontrolled land disposal of hazardous waste can threaten human health and the environment. Regulating land disposal is one of the most important strategies used by EPA and the Department to protect groundwater.

The Land Disposal Restrictions (LDR) provide a second measure of protection from threats posed by hazardous waste disposal. The LDR regulations ensure that hazardous waste cannot be placed on the land until the waste meets specific treatment standards to

reduce the mobility or toxicity of the hazardous constituents in the waste.

Generators must determine if their waste is subject to LDR at the point of generation. If the waste is subject to LDR and does not meet applicable treatment standards, the generator must prepare a one-time notice to accompany the initial waste shipment. A new notice is only required if any changes were made to the process which generates the waste, the character or composition of the waste, or the receiving facility. Copies of the LDRs must be retained in your files for at least three years from the date the waste was sent to the treatment, storage or disposal facility with the notification.

If the waste meets the applicable treatment standards, then the generator must send a one-time notification and certification statement with the initial waste shipment. The notification and certification statements must be retained for three years from the date the waste was sent to the treatment, storage or disposal facility with the notification and certification statements.

Dilution of a restricted hazardous waste is prohibited as a substitute for adequate treatment to achieve compliance. Dilution of characteristic hazardous wastes in a treatment system which discharges to waters of the United States is also prohibited.

STEP 7. Emergency Planning and Response

Generators of hazardous waste must carefully manage their wastes in order to minimize the risk of an accident and complete emergency planning requirements which describe what to do in response to an emergency. Emergency planning requirements are based on your generator status and may be similar to what other laws require.

A. VSQG Requirements

VSQGs are not required by the North Dakota Hazardous Waste Management Rules to have any contingency planning; however, such planning may be required by the city or county, or by insurance carriers. Some parts of contingency planning are common safety practices. If a VSQG becomes a SQG during the year, contingency planning is required.

B. SQG Requirements

SQGs are required to:

1. Designate at least one employee either on-site or on call at all times to act as the emergency coordinator.

2. Post the following information next to the telephone:

   - Name and phone number of the emergency coordinator(s).

   - Location of fire extinguishers, spill control equipment, and, if present, fire alarm.

- Telephone number of the fire department, unless the facility has a direct alarm.

3. Ensure all employees are familiar with proper hazardous waste handling procedures, relevant to their responsibilities.

4. Designate responses the emergency coordinator(s) need to fulfill in case of emergency. Such responses include:

   - In the event of a fire, calling the fire department or attempting to extinguish the fire with a fire extinguisher.

   - In the event of a spill, stop the spill, contain the flow, and as soon as practicable, cleanup the spilled material and contaminated debris.

   - In the event of a fire, explosion, or other release of hazardous materials which may threaten human health outside the facility, or when the generator has knowledge that a spill has reached surface water, the emergency coordinator will notify the national response center at 1-800-424-8802. The report must include the following:

     1. The name, address, and State/EPA ID number of the facility;

     2. Date, time, and type of occurrence (e.g., spill or fire);

     3. Quantity and type of hazardous waste involved;

     4. Extent of injuries, if any; and,

     5. Estimated quantity and disposition of recovered materials, if any.

     6. Attempt to make arrangements with the local police department, fire department, other emergency response teams, hospitals and contractors. They must document the arrangements or confirm that attempts to make such arrangements were made.

C. LQG Requirements

LQG requirements include all SQG requirements plus require a written contingency plan. The contingency plan must include the following:

1. A description of actions (emergency procedures) facility personnel must take to respond to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste to air, soil, or surface water;

2. A description of arrangements with local police departments, fire departments,

hospitals, contractors, and state and local emergency response teams to coordinate emergency services;

3. A list naming all qualified personnel who can act as emergency coordinator, including their priority of assumption, work and home telephone numbers, and addresses;

4. A list of all emergency equipment available at the facility including fire extinguishing systems, alarm systems, spill control equipment, communications equipment, and decontamination equipment, the location and physical description or each item on the list and a brief outline of their capabilities; and,

5. An evacuation plan for all areas of the facility, particularly those pertaining to the treatment, storage, and disposal areas of the facility. The plan must describe signals, evacuation routes and alternate routes.

Copies of the contingency plan must be kept at the facility and be submitted to the local authorities. Amendments and updates can be submitted at any time to maintain current, up-to-date information. Updates must be submitted to all recipients of the original contingency plan. Commonly, updates are submitted in the form of substitution pages containing the corrected information.

In addition, all LQGs must submit a quick reference guide for their contingency plan to the local authorities. The quick reference guide must include the following elements:

a. The types, names, and associated hazards of each hazard waste present at any one time (e.g., toxic paint wastes, spent ignitable solvent, corrosive acid, etc.);

b. The estimated maximum amount of each hazardous waste that may be present at any one time;

c. The identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff;

d. A map of the facility showing where hazardous wastes are generated, accumulated, and treated along with routes for accessing these wastes;

e. A street map of the facility in relation to surrounding businesses, schools, and residential areas to understand how best to get to the facility and evacuate citizens and workers;

f. The locations of water supply (e.g., fire hydrants and its flow rate);

g. The identification of onsite notification systems (e.g., an offsite fire alarm, smoke alarms); and

h. The name of the emergency coordinator and twenty-four/seven emergency telephone number or, in the case of a facility where an emergency coordinator is continuously on duty, the emergency telephone number for the emergency coordinator.

STEP 8. Personnel Training

Education and training ensure that proper procedures for handling hazardous waste or responses to emergency situations are known by all personnel. The Program recommends that all facilities that generate hazardous waste have some form of employee training and that this training be documented.

Ideas for training include brief safety meetings, webinars, and outside contractor-supplied training. Records should include the type and description of the training, the date the training was held, and which employees attended.

Many government regulatory agencies such as OSHA also have training requirements. A program may be developed which addresses all of these agencies training objectives.

A. VSQG Requirements

There are no training requirements for VSQGs. It is recommended that personnel receive proper guidance on hazardous waste handling procedures and emergency procedures.

B. SQG Requirements

Training for SQGs consists of familiarizing employees with proper hazardous waste handling and emergency procedures. There are no formal training record requirements.

C. LQG Requirements

LQGs are subject to a formal personnel training program. Requirements for the programs are:

1. Classroom or on-the-job training provided the training is site-specific and teaches facility personnel proper hazardous waste handling procedures including contingency plan implementation and emergency response procedures.

2. Must be directed by a person trained in hazardous waste management procedures.

3. New personnel must complete initial training within six months of employment. Employees may not work unsupervised until completion of this training.

4. All personnel shall have an annual training review.

5. Documents and records must be maintained that contain:

- Job title and description for each position related to hazardous waste management, including name of employee;

- Written documentation describing the type and amount of introductory and continuing training for each person filling a job position; and,

- Training records on current personnel must be kept until facility closure. Former employee records must be kept for a minimum of three years after the employee leaves employment with the facility.

D. Hazardous Waste Operations and Emergency Response (HAZWOPER) Training

The Department of Labor under OSHA enacted training requirements for employees involved with certain hazardous waste operations. Persons requiring this training include those involved in:

- Cleanup at uncontrolled waste dump sites.
- Working at permitted hazardous waste TSDFs.
- Responding to emergencies involving hazardous materials.
- First responder occupations.

The HAZWOPER training required by OSHA is different than the training required for hazardous waste management outlined above. For more information, contact OSHA at (701) 250-4521.

STEP 9. Reporting Requirements

A. Biennial Reports

The Program sends all SQGs and LQGs biennial hazardous waste notifications for reporting hazardous waste generation activity for every odd numbered year. The SQGs and LQGs are required to complete the biennial hazardous waste report and return the completed report to the Program by March 1 of every even numbered year. The Department is also accepting reports electronically through the RCRA Industry Application. Generators can register using the same process and you would when applying for an EPA ID number or registering for access to e-manifest.

The biennial report records information on hazardous waste generation, transportation and disposal for the previous odd numbered calendar year only. This means that generators do not need to track two years worth of data for reporting purposes.

VSQGs are not required to file biennial reports. The Program periodically sends a hazardous waste reporting form to VSQGs in order to maintain correct information in our database. If a VSQG has experienced an episodic event (described in Section C. Episodic Generation &

Short-Term Generator) a biennial report does not need to be prepared, assuming all applicable regulatory requirements were met.

B. Intent to Import or Export

The Program requires that facilities that intend to import from or export to another country notify the Program. The Program requires that the notification include the date of shipment, quantity shipped/received, frequency of shipment, and descriptions of the waste material, how it is to be treated, stored, transported, and/or disposed of.

If you are importing or exporting hazardous wastes into North Dakota from a foreign country, you must contact the Program for further detailed information on reporting requirements.

C. Episodic Generation vs Short-Term Generator

On occasion, a company may need to dispose of hazardous wastes that are not generated on a regular basis or from an event (either planned or unplanned). There are two types of generators for these events: Episodic and Short-Term.

An Episodic Generator is a very small or small quantity generator that experiences a planned or unplanned event that generates an abnormal quantity of wastes. Instead of being subject to a changing generator category, the generator may manage these wastes according to the Episodic Generator regulations in 33.1-24-03. Episodic Generator events may be planned (tank cleanouts, high volume period, etc.) or unplanned (release, expired or old product, etc).

No more than one episodic event per calendar year will be allowed unless a petition is granted by the NDDEQ. If your facility is planning, or has experienced, an episodic event contact the NDDEQ for additional guidance and refer to NDAC 33.1-24-03-34to ensure all requirements are being met.

Notification must be provided to the NDDEQ at least thirty (30) days prior to a planned episodic event, and no more than 72 hours (3 days) after an unplanned event. The episodic event may last no more than sixty (60) calendar days.

A Short-Term Generator is a site that will generate waste from a short-term or one-time event and then cease activity and is not from on-going processes. It can happened because of generation of off-spec/out-of-date chemicals at a site that normally doesn't have hazardous waste, site or production process decommissioning by new operator or Remediation/spill cleanup sites that fit the definition of short-term. A site will need to apply for an EPA ID number (see Section One, Step 2). On the form a Generator Status must be provided and an explanation must be provided in the comment section of the form. Short-Term ID numbers will be inactivated after thirty (30) days.

D. Right-to-Know, SARA Title III, and EPCRA Reporting

Communities and employees have the right to know about the amounts, location, and potential effects of hazardous chemicals being used or stored in designated quantities. These right to know laws are also known as the Superfund Amendments and Reauthorization Act (SARA) Title III and Emergency Planning and Community Right-to-know Act (EPCRA). Facilities are required to submit Safety Data Sheets (SDS), on Occupational Safety and Health Administration (OSHA) chemicals defined as hazardous by the Hazardous Communication Standard, to the North Dakota Department of Emergency Services (NDDES), Division of Homeland Security and the Local Emergency Planning Committees (LEPCs).

An annual report is required to be submitted to the State Emergency Response Commission (SERC), LEPCs, and fire departments. This report is to include the names of chemicals, their quantities, and associated physical and health hazards. This report is due every March 1 of each year for the preceding calendar year.

Employers are required to make SDSs on hazardous materials used by the company available to their employees. Employees must be trained in the proper handling of hazardous materials. SDSs must be kept on file at the facility for thirty years. For further information concerning Right to Know, contact OSHA or the NDDES.

STEP 10. Recordkeeping Requirements

Tracking of hazardous wastes is done using manifests. Biennial reporting of hazardous waste generated is completed using these manifests. To facilitate ease in reporting quantities generated, proper record keeping practices should be followed by generators. In all cases, the periods for record retention are automatically extended during the course of any unresolved enforcement action regarding the regulated activity or at the request of the Program.

A. VSQG Requirements

There are very limited recordkeeping requirements for VSQGs. It is recommended that if hazardous waste shipments are manifested off-site and land disposal restriction forms are completed, that these documents be retained for the same time frames as listed below. Contractual agreements for the recycling of hazardous wastes should be maintained on-site.

B. SQG Requirements

Records required to be retained for SQGs include:

1. Signed manifests from the designated facility for three years from the date of shipment.

2. Land disposal restriction notifications (LDRs) for at least three years from date of shipment. If you have a contractual agreement, you will need to keep the LDR forms

and the agreement for at least three years after termination or expiration of the agreement.

3. Copies of biennial reports and exception reports for the last three years.

4. Records of waste analysis for at least three years from the date the waste was shipped to an to onsite or off-site ~~(~~TSDF~~)~~.

5. Contractual agreements for the recycling of hazardous wastes must be maintained on-site and for three years after termination or expiration of the agreement.

C. LQG Requirements

LQGs must follow the record retention requirements for SQGs as well as the following:

1. Training records for current employees handling hazardous waste must be kept until closure of the facility. For employees that are no longer employed, training records must be kept for at least three years after their employment has ceased.

2. Manifest discrepancy reports.

3. Documentation from updating and revising the contingency plan.

LQGs that are also TSDFs will also need to keep the following records:

1. Plans and designs of all buildings and facilities used to treat, store, or dispose hazardous waste.

2. Operating records, to include all provisions of Section 33.1-24-05-40 NDAC.

Section Two: Selected Topics

Topic 1: Excluded Solvent-Contaminated Wipes

Reusable: Solvent-Contaminated wipes sent for cleaning and reuse are not hazardous wastes if they are contaminated with one of the solvents from the list below.

Disposable: Solvent-Contaminated wipes sent for disposal are not hazardous wastes if they are contaminated with one of the solvents from the list below.

-Acetone
-Benzene
-n-Butanol
-Chorobenzene
-Creosols
-Cyclehexanone
-1,2-Dichlorobenzene
-Ethyl acetate
-Ethyl benzene
-2-Ethoxyethanol
-Isobutyl alcohol
-Methanol
-Methyl ethyl ketone
-Methyl isobutyl ketone
-Methylene chloride
-Tetrachloroethylene
-Toluene
-1,1,2 – Trichloroethane
-Xylenes
-Trichloroethylene (Reusable ONLY)

There are other requirements generators must comply with:

1. Labeling – Containers must be labeled "Excluded Solvent Contaminated Wipes".

2. Accumulations Time Limit – generators may accumulate wipes up to 80 days from the date a wipe was first placed in the container.

3. Recordkeeping - Generators must maintain documentation that includes:

    a. Name and address of the laundry, dry cleaner, landfill, or combustor;
    b. Documentation that the 180-day accumulation time limit is being met; and
    c. Description of the process the generator is using to meet the "no free liquids" condition.

At the point of being sent for cleaning on-site or sent off-site for cleaning or disposal, the container and wipes cannot contain any free liquids. Any free liquids removed from the wipes of the container holding the wipes must be managed according the hazardous waste regulations, a appropriate.

Topic 2: Sewering Wastes

Certain characteristic hazardous wastes may be managed by neutralization in tanks or containers and sewered. Acids and bases that are hazardous only due to having a pH less than 2 or greater than 12.5, may be neutralized, diluted, and discharged to a Publicly Owned Treatment Works (POTW) with permission. Some wastes may be discharged to lagoon systems with permission from the treatment works. At no time should wastes be sewered to either septic systems or storm drains.

You should always notify the local POTW prior to sewering any chemicals. All treatment works have pre-treatment influent requirements that they must comply with. For more information, contact your local POTW or the Division of Municipal Facilities.

Topic 3: Small Quantity Inventory

Small quantity inventory disposal occurs when school laboratories or other laboratory facilities conduct chemical cleanouts to remove un-useable or expired chemicals from their inventory. Some of the chemicals may be non-hazardous and can be landfilled; or diluted, neutralized and sewered.

The Program requests that you send a letter listing all obsolete stock and quantities that require disposal. The Program will review the list of chemicals and determine which chemicals can be landfilled, sewered, or diluted, neutralized, and sewered. Chemicals which may be diluted and sewered may cause problems with the POTW (see Topic ~~1~~2). Some chemicals may not be appropriate for these treatment techniques. These chemicals will require handling as hazardous wastes.

Topic 4: Used Oil, Filters & Antifreeze

A. Used Oil

Used oil is defined as any oil that has been refined from crude oil or any synthetic oil, which has been used, and as a result of such use are contaminated by physical or chemical impurities. This definition includes vehicle crankcase, lubricating, hydraulic, some cutting, and many other oils. Used oil is exempt from hazardous waste regulation if:

1) it does not exhibit the characteristic of ignitability.
2) it does not contain a listed hazardous waste.
3) it is recycled.

The used oil rules apply to all generators equally. This means there are no different rules for very small, small, or large quantity generators to follow.

Containers or tanks used to store used oil must be clearly labeled with the words "Used Oil". This includes fill pipes for underground storage tanks. The containers and aboveground storage tanks must be in good condition with no severe rusting, apparent structural defects or deterioration, and must not be leaking;

Burning of used oil for energy recovery is an approved management method. Used oil-fired space heaters must be designed to burn used oil as a fuel, have a heating capacity of 500,000 Btu per hour or less, be vented to the outside atmosphere, and burners may burn only used oil they generate themselves or accept from household do-it-yourselfers. There is no limit on the number of used oil-fired space heaters a facility may use, however if the total aggregate capacity of aboveground used oil storage at a facility is greater than 1,320 gallons, the facility may be subject to the federal Spill Prevention, Control, and Countermeasure (SPCC) Regulations. (https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations)

Underground storage tanks containing used oil for heating purposes burned on the premises where stored are not regulated. If you have any questions regarding tanks that store used oil contact the North Dakota Underground Storage Tank Program.

It is illegal to dispose of used oil in solid waste landfills, on the ground, or in waters of the state. Used oil utilized as road oil for dust suppression is also illegal. Environmentally safe management methods for used oil include recycling, re-refining, and burning for energy recovery. The Department encourages recycling of used oil whenever possible.

All used oil releases should be cleaned up immediately and reported to the Department. The Department incident reporting webpage can be found at:

https://deq.nd.gov/WQ/4_spill_Investigations/IncidentReporting.aspx

B. Used Oil Filters

Used oil filters are not generally considered a hazardous waste, however, the used oil they contain will eventually end up in the leachate generated in the final disposal site, normally a landfill.

Used oil filters must be hot-drained (temperature above 60ºF) of all free-flowing oil for twelve hours before being considered drained. The Program recommends the filters be either punctured, dismantled, or crushed along with the hot-draining to ensure the maximum amount of oil is recovered. Used oil filters that have been hot-drained may be recycled as scrap metal or disposed in a permitted municipal waste or industrial waste landfill.

C. Antifreeze

Ethylene glycol or propylene glycol (the main ingredients in antifreeze) are sweet tasting and

can be toxic to animals and children in small amounts. The Department recommends that used antifreeze be recycled.

Small amounts of used antifreeze may be disposed by sewering to a POTW with approval. At no time is antifreeze to be discharged to septic systems, storm sewers, streams, or dumped on the ground. Any spilled antifreeze should be cleaned up or liberally diluted with large amounts of water.

Topic 5: Used Lead-Acid Batteries

It is illegal to dispose of used lead-acid batteries in municipal waste landfills or in the municipal waste stream. By law, used lead-acid batteries must be accepted by vendors of new batteries as trade-ins. Storage requirements for lead-acid batteries include a leakproof structure and that the batteries be elevated above the floor to detect leakage. If you plan to store lead-acid batteries for reclamation or operate a reclamation facility, contact the Program for further requirements.

Under the Universal Waste rules (See Topic ~~6~~7), any rechargeable battery may be managed in accordance with the universal waste regulations. This includes, but is not limited to, sealed cell lead-acid batteries, nickel-cadmium batteries, mercury batteries, and lithium batteries.

Topic 6: Pesticides

Farmers and private citizens using pesticides are exempt from most hazardous waste provisions, however, pesticide registration and application restrictions with the North Dakota Department of Agriculture still apply. Pesticide wastes range from rinsate and empty containers to unused or unusable mixtures to pesticide contaminated soils.

Guidelines for disposal and handling of pesticides:

1. Triple rinse or pressure rinse pesticide containers. Use rinsate for the required dilution of concentrated pesticides.
2. Use only the amount of pesticide required for your needs and apply the pesticide in accordance with the label directions.

3. Purchase only the amount of pesticide required to accomplish the job.

4. Store pesticides away from food or feed and in a manner that protects humans, animals, and the environment. All pesticides must be kept in their original containers.

Some pesticides, when disposed, are considered a hazardous waste. Pesticides that were commonly used only a few years ago are now considered hazardous wastes when disposed, such as Dinoseb, Chlordane, and Toxaphene. Some current pesticides are hazardous waste when disposed, such as 2,4-D.

If you have any questions about old pesticides or pesticide collection programs, contact your local Ag Extension Office, the North Dakota Department of Agriculture Pesticide Director, or

the Program. Article 4-35 NDCC, the Pesticide Act, is available from the North Dakota Department of Agriculture.

The Department of Agriculture has operated a program named Project Safe Send. Project Safe Send collects and then subsequently manages the collected pesticides in accordance with applicable regulations. The program is paid for by pesticide registration fees and is offered at no cost to the participants. For more information, contact your local Ag Extension office or the Department of Agriculture.

Topic 7: Universal Wastes and the Universal Waste Rule

The universal waste rule is designed to reduce the amount of hazardous waste items that ultimately end up in the municipal landfills by encouraging recycling and proper disposal of certain common hazardous wastes. This protects the environment while encouraging effective and efficient waste management, while also reducing the regulatory burden on businesses that generate these wastes.

In North Dakota, the universal wastes include:

1. Rechargeable Batteries: such as nickel-cadmium, lithium- or mercury-containing batteries, which are found in many common items in business and home settings. Lead-acid batteries, such as automotive batteries, may be covered by the universal waste rule.

2. Pesticides: such as those pesticides which have been recalled or banned from use, obsolete or unusable pesticides, and those pesticides which are no longer needed.

3. Mercury-containing devices: which include, but are not limited to, thermostats, switches, and other items in which mercury is contained in a capsule or other container and the mercury is used to transmit pressure, temperature or electricity. Used mercury spill kits are not covered by the universal waste rule.

4. Lamps: which include, but are not limited to, fluorescent tubes, high intensity discharge lamps, neon, mercury vapor, high pressure sodium, and metal halide lamps.

Universal waste handlers are people who generate or produce universal waste as well as people who receive universal waste from other generators or handlers and consolidate it before sending it to another handler, recycler, or treatment storage and disposal facility. Handlers accumulate universal waste but do not treat, recycle, or dispose of the waste. The universal waste regulations include requirements for two groups of handlers based on the amount of universal waste accumulated on site at any one time:

A. Small Quantity Handlers of Universal Waste (accumulates less than 5,000 kilograms at any time) are not required to notify the Program of their universal waste management activities. They are not required to keep records of their universal waste shipments, however, the Program encourages all handlers to keep records of their shipments.

B. Large Quantity Handlers of Universal Waste (accumulates a total of 5,000 kilograms or more at any time) are required to notify the Program of their universal waste management activities and keep records of those activities for a period of three years. Records which meet the requirements need to show the originator of the waste, the type and quantity of waste, the transporter and the destination facility. The rule does not require any specific forms which need to be used as long as this information is covered. Hazardous waste generators do not need to re-notify for universal waste management activities.

All handlers of universal waste must label or mark the universal waste as specified below:

1. Universal waste batteries (for example, each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Battery(is)", or "Waste Battery(is)", or "Used Battery(is)";

2. A container (or multiple container package unit), tank, or transport vehicle or vessel in which recalled universal waste pesticides are contained must be labeled or marked clearly with:

   a. The label that was on or accompanied the product as sold or distributed; and

   b. The words "Universal Waste - Pesticide(s)" or "Waste - Pesticide(s)";

3. A container, tank, or transport vehicle or vessel in which unused pesticide products are contained must be labeled or marked clearly with:

   a. The following label:

      (1) The label that was on the product when purchased, if still legible;

      (2) If using the labels described in paragraph 1 is not feasible, the appropriate label as required under department of transportation regulation 49 CFR part 172; or

      (3) If using the labels described in paragraphs 1 and 2 is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by the state; and

   b. The words "Universal Waste - Pesticide(s)" or "Waste - Pesticide(s)".

4. Universal waste mercury containing devices (for example, each mercury containing device) or a container in which mercury containing devices are contained must be labeled or marked clearly with any one of the following phrases: "Universal Waste - Mercury Containing Device(s)", or "Waste Mercury Containing Device(s)", or "Used Mercury Containing Device(s)".

5. Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: “Universal Waste - Lamp(s)”, or

"Waste Lamp(s)", or "Used Lamp(s)".

All handlers of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated or received from another handler. Handlers must be able to demonstrate the length of time that the universal waste has been accumulated.

All handlers of universal waste need to have some type of employee training to describe the proper waste handling and emergency procedures appropriate for the type or types of universal waste handled at the facility and relative to their responsibilities during normal facility operations and emergencies.

Very Small Quantity generators may opt to manage their wastes under either the universal waste rule or continue to manage their wastes under the conditional exemption found in Section 33.1-24-02-05 NDAC.

Topic 8: Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are manmade chemicals. PCBs were primarily used as a fire retardant in the cooling liquids of electrical transformers and capacitors. Because of careless use and disposal causing damage to human health and the environment, PCBs have been banned from manufacture since 1979. Once released, PCBs stable nature allows them to persist in the environment for a very long period of time.

Studies done relating to PCB exposure have shown both short- and long-term probable health effects. Concerns are for PCBs toxicity to the liver, adverse reproductive effects, carcinogenic risk upon exposure, and irritation to eyes, nose, throat, and skin. Laboratory data demonstrate that PCBs have caused cancer in animals. PCBs are categorized as a possible human carcinogen.

Concentrations of PCBs over 49 ppm are regulated by the Toxic Substance Control Act (TSCA) under 40 CFR 761 and covers PCB use, record keeping, storage, leak or spill cleanup, and disposal. As PCBs are regulated under TSCA, they should not be included in hazardous wastes biennial reports. One pound of pure PCBs (approximately 10 PCB fluorescent light ballasts) is the reportable quantity when disposing in a landfill under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). North Dakota's air and water quality requirements regulate concentrations of PCBs under 50 ppm.

Topic 9: Pollution Prevention & Waste Minimization

Pollution prevention (P2) is any practice that reduces, eliminates, or prevents pollution at its source, also known as "source reduction. While this is not always possible, it is a good place to start when looking at reducing your potential for waste generation.

While P2 prevents waste generation, waste minimization reduces the amount or toxicity of wastes generated. Waste minimization is important for conserving the environment, but it can also save your company time and money. North Dakota regulations require LQGs to make a concerted effort to reduce the amount of hazardous waste generated.

Pollution prevention and waste minimization go hand in hand and can be accomplished in many ways.

1. Improved housekeeping: Sloppy housekeeping can result in more waste being generated than is necessary. To help reduce excess waste generation, be sure to:

    - Buy only the amount of materials needed. Buying in quantity saves money initially but leaves you with excess material which may exceed its shelf life and require expensive disposal.

    - Use only as much material as is needed so that little or no excess is generated. This is one time where using more is definitely not better.

    - Use materials in correct proportions so that little or no excess is generated by making defective products or formulations.

    - Ensure that equipment is working and maintained properly. Check for faulty valves or loose pipes and fittings to make sure that products are not lost or unintentionally contaminated.

    - Inventory all wastes produced, clearly mark and label, and properly store these wastes. Inadequate labeling may make it difficult to identify wastes later on. Improper storage of hazardous wastes can result in accidental contamination of non-hazardous waste.

2. Material substitution: Substituting non-hazardous or less hazardous products for hazardous materials that are presently used can reduce or eliminate some hazardous waste streams. Examples are switching citrus-based cleaners and degreasers for hazardous solvents, or nonmetallic, water-based paint for solvent, metallic pigmented paint, switching from solvent-based inks to non-petroleum, vegetable-based inks, or using a natural sorbent material (e.g., ground corn husks or nut shells) for oil spills which may then be burned for energy recovery.

3. Waste concentration: Some hazardous wastes contain large volumes of water making transportation, treatment, and disposal very costly. Commercially available equipment, such as sludge dryers or filter presses, remove the water content of a pretreatment sludge, thus reducing the volume of hazardous waste and disposal costs.

    Other non-hazardous wastes, such as used oil filters or empty paint cans, may be crushed for volume reduction. This process saves volume in both the receptacle and the landfill if the crushed filters or paint cans are not able to be recycled. Many scrap metal dealers will accept used oil filters, both crushed and uncrushed.

4. Process redesign/modernization: Replacing existing equipment with newer, more efficient equipment for the same operation can significantly reduce waste generation,

such as use of high-volume low pressure (HVLP) paint spray guns or powder coating equipment.

5. Recycle/reuse: Closer evaluation of the way wastes are handled can sometimes result in opportunities for recycling. For example, waste solvent may be clean enough for another application in a different process. Use of distillation equipment to remove suspended materials in solvents can result in decreased waste volume and the reduced need for virgin solvents.

6. Waste exchange: Unused products, excess inventory, off-specification materials, and hazardous wastes may be exchanged for beneficial re-use as a management technique. A company utilizing a waste exchange lists a "product" in a waste exchange newsletter, allowing interested companies to contact for an exchange of the waste product. Assistance for waste minimization can be obtained from either the Hazardous Waste or the Solid Waste Program.

Topic 10: Environmental Services

Environmental services available from the Department of Environmental Quality include technical assistance, training, regulatory interpretations, and a variety of other services. Technical assistance reviews are on-site visits where the facility management practices are audited for compliance with applicable environmental or occupational safety regulations.

Resources are available from the following sources:

1. North Dakota Department of Environmental Quality
   918 East Divide Ave.
   Bismarck, ND 58501-1947

   a. **Aboveground and Underground Storage Tank Technical Assistance**

      Division of Waste Management
      Underground Storage Tank Program
      701-328-5166
      https://deq.nd.gov/WM/

   b. **Air Quality Technical Assistance**

      Division of Air Quality
      701-328-5188
      https://deq.nd.gov/AQ/

   c. **Hazardous Waste and Used Oil Technical Assistance**

      Division of Waste Management
      Hazardous Waste Program

701-328-5166
https://deq.nd.gov/WM/

d. **Water Quality Technical Assistance**

Division of Water Quality
701-328-5210
https://deq.nd.gov/WQ/

e. **Solid Waste Technical Assistance**

Division of Waste Management
Solid Waste Program
701-328-5166
https://deq.nd.gov/WM/

f. **Spill Investigation and Reporting**

Division of Water Quality
Spill Investigation Program
701-328-5210
https://deq.nd.gov/WQ/4_spill_Investigations/IncidentReporting.aspx

2. **Non-regulatory OSHA Technical Assistance**

ND Occupational Safety and Health Consultation Program
Bismarck State College Continuing Education and TrainND
NDOSH
1200 Schaffer St.
PO Box 5587
Bismarck, ND 58506
701-224-5600
https://bismarckstate.edu/continuingeducation/ndosh/

3. **Occupational Safety and Health Assistance (OSHA)**

US Dept. of Labor Occupational Safety and Health Administration
521 E Main Ave., Suite 200
Bismarck, ND 58501
701-250-4521
https://www.osha.gov/contactus/bystate/ND/areaoffice

4. **Pesticide Technical Assistance**

North Dakota Department of Agriculture
Pesticide and Fertilizer Division

Pesticide Program
600 E. Blvd., 6th Floor
Bismarck, ND 58505
701-328-4756
https://www.nd.gov/ndda/pesticide-fertilizer-division/pesticide-program

5. **Small Business Assistance**

North Dakota Department of Commerce
Economic Development and Finance Division
1600 E Century Ave., Suite 2
PO Box 2057
Bismarck, ND 58503
701-328-5300
https://www.business.nd.gov/resources/BusinessAssistance/

6. **Hazardous Material Spill Reporting**

Department of Emergency Services
Division of State Radio Communications
PO Box 5511
Bismarck, ND 58504

Non-emergency 8-5 Monday-Friday
800-773-3259 or 701-328-8100
Emergency: 24 hours
800-472-2121
https://www.des.nd.gov/response-section/reporting-hazmat-spillrelease

National Response Center
800-424-8802

7. **Tier II Reporting and Community Right-to-Know**

North Dakota Department of Emergency Services
Division of Homeland Security
Haz-Chem Preparedness and Response
701-328-8100
https://www.des.nd.gov/response-section/haz-chem-preparedness-and-response

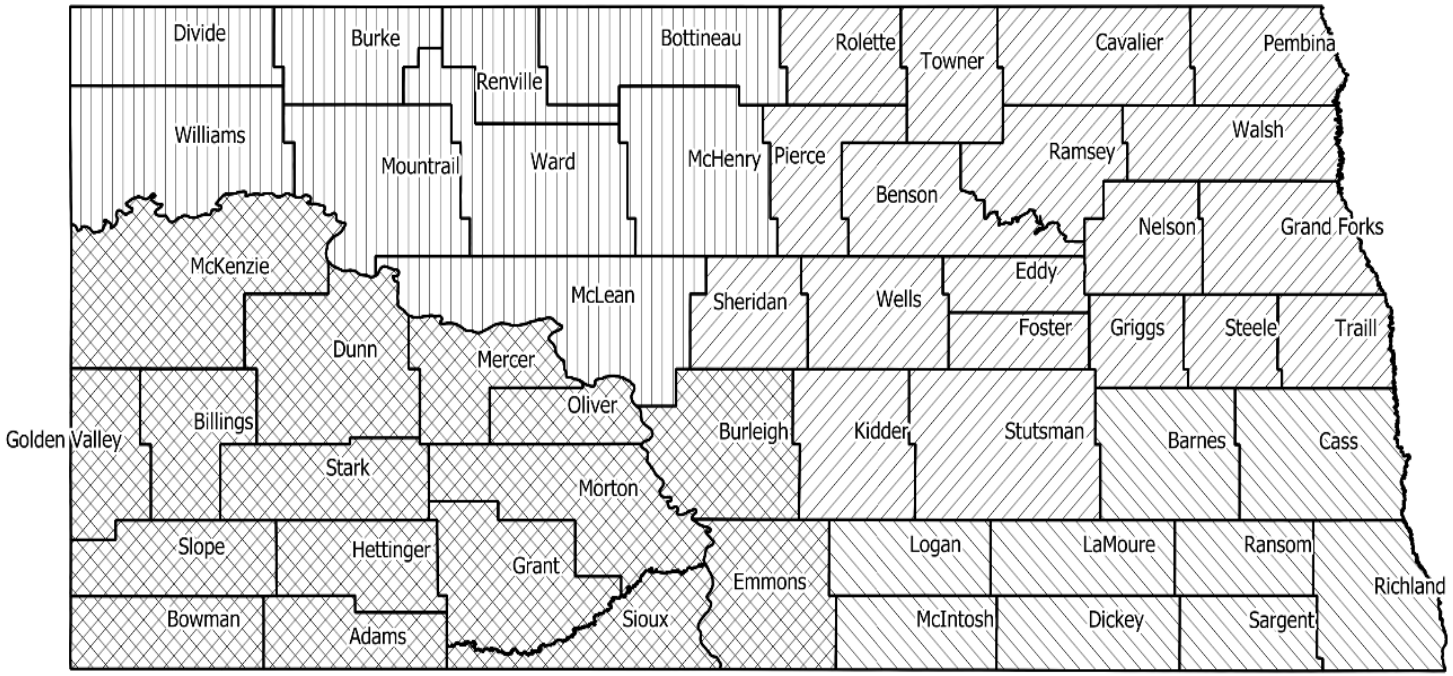
8. **Transportation Requirements**

North Dakota Department of Transportation
608 E. Blvd.
Bismarck, ND 58505
701-328-2500

https://www.dot.nd.gov/

North Dakota Highway Patrol
Motor Carrier Operations
600 E Blvd., Dept. 504
Bismarck, ND 58505
701-328-2447
https://www.nd.gov/ndhp/motor-carrier-operations

Hazardous Waste Management Regions



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Environmental Quality

Hazardous Waste Program Contacts

- Ivana Striebel: 701-328-5265
- Christine Roob: 701-298-4638
- Derek Hall: 701-328-5168
- Robert Disney: 701-328-5159

CONTAINER INSPECTION LOGSHEET

WEEKLY INSPECTION		CONTAINER INFORMATION					INVENTORY		COMMENTS
DATE	INSPECTOR	LABEL?	DATED?	CLOSED?	CONDITION?	PALLET?	QTY	SIZE	WASTE TYPE OR ACTIONS TAKEN

ACRONYMS & EQUIVALENTS CHART

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFC	Chlorofluorocarbon
CWA	Clean Water Act
DOT	Department of Transportation
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FMCSA	Federal Motor Carrier Safety Act
HAZWOPER	Hazardous Waste Operations and Emergency Response
HHW	Household Hazardous Waste
HSWA	Hazardous and Solid Waste Amendments
LDR	Land Disposal Restriction
LEPC	Local Emergency Planning Committee
LQG	Large Quantity Generator
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NDDES	North Dakota Division of Emergency Services
NDPDES	North Dakota Pollution Discharge Elimination System
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyl
PPB	Parts Per Billion
PPM	Parts Per Million
POTW	Publicly Owned Treatment Works
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheet
SERC	State Emergency Response Commission
SPCC	Spill Prevention, Control and Countermeasures
SQG	Small Quantity Generator
TCLP	Toxicity Characteristic Leaching Procedure
TSCA	Toxic Substance Control Act
TSDF	Treatment, Storage, or Disposal Facility
VSQG	Very Small Quantity Generator

Measurement Comparisons

Unit	**1 ppm (Fg/g, mg/l, mg/kg)**	**1 ppb (Fg/kg, Fg/l)**
Cash	1 cent/$10,000	1 cent/$10 million
Time	1 minute/2 years	1 minute/2,000 years
Weight	1 pound/500 tons	1 pound/500,000 tons
Length	1 inch/16 miles	1 inch/16,000 miles
Volume	1 12-oz. can/42,000 cases	1 can/42 million cases
Area	1 acre/1,600 square miles	1 acre/1.6 million square miles