
GUIDELINES

FOR THE

CLASSIFICATION

AND

CODING

OF

INDUSTRIAL

AND

HAZARDOUS WASTES



TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

WASTE PERMITS DIVISION

RG-022 Revised 2/05

GUIDELINES FOR THE CLASSIFICATION AND CODING OF INDUSTRIAL AND HAZARDOUS WASTES

**THIS IS A GUIDANCE DOCUMENT AND SHOULD NOT BE
INTERPRETED AS A REPLACEMENT TO THE RULES.**

The rules for classifying and coding industrial wastes and hazardous wastes may be found in 30 Texas Administrative Code (TAC) Sections (§§) 335.501-.521 (Subchapter R).

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Introduction

Who Should Read This Booklet

The main purpose of this guidance document is to help generators of industrial and hazardous waste follow state and federal requirements on

- classifying and coding these wastes,
- keeping proper records, and
- notifying the Texas Commission on Environmental Quality (TCEQ) about the wastes, when required.

Specifically, this document gives guidance on the regulations in Title 30 of the Texas Administrative Code (TAC), Chapter 335, Subchapter R (Waste Classification). The rules in Subchapter R apply both to wastes generated in Texas and to those generated outside the state and sent to Texas for treatment, storage, and/or disposal. Correct and timely compliance with the regulations on industrial and hazardous wastes helps to protect the state's environment and safeguard the health of Texas citizens.

Waste Classes

Figure 1 shows the main categories of hazardous and nonhazardous waste. The following paragraphs give brief descriptions of these categories—important terms that will be used throughout this booklet. (For more details, see the classification checklist in Chapter 3 and the definitions in Chapter 8.)

Hazardous Waste

A hazardous waste is one that is listed as such by the U.S. Environmental Protection Agency (EPA) or that exhibits one or more hazardous characteristics (also as specified by the EPA). Hazardous wastes are threatening to human health and the environment.

Listed Hazardous Waste

EPA lists over 400 wastes as hazardous. For more information see Part I-A of the checklist in Chapter 3.

Characteristically Hazardous Waste

Waste that displays one or more of four hazardous characteristics:

- **ignitability** (easily flammable—for example, solvents);
- **reactivity** (capable of rapid chemical reaction—for example, peroxides);
- **corrosivity** (highly acidic or alkaline, able to dissolve metals or burn the skin—for example, hydrochloric acid or sodium hydroxide); and
- **toxicity** (a waste that can release toxic constituents into the environment—for example, lead-based paint).

For more information on hazardous characteristics, see Part I-B of the checklist in Chapter 3.

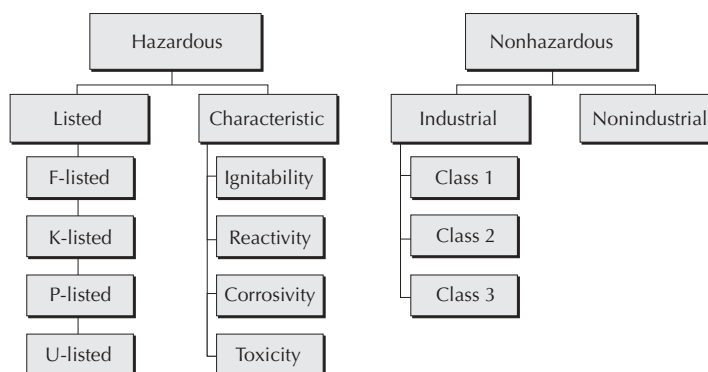
Nonhazardous Waste

Any industrial waste that is not listed as hazardous and does not have hazardous characteristics. (Class 1 nonhazardous industrial waste can include certain levels of constituents and specified properties that, at higher levels, might otherwise render the waste hazardous—see Part II of the checklist in Chapter 3.)

Industrial versus Nonindustrial Wastes

Industrial wastes result from (or are incidental to) operations of industry, manufacturing, mining, or agriculture—for example, wastes from power generation plants, manufacturing facilities, and laboratories serving an industry. *Nonindustrial wastes*, by contrast, come from sources such as schools, hospitals, churches, dry cleaners, most service stations, and laboratories serving the public.

Figure 1. Hazardous and Nonhazardous Wastes



Nonhazardous Industrial Waste

In this grouping, **Class 1** waste is considered potentially threatening to human health and the environment if not properly managed, because of the constituents and properties this class can include. Therefore, there are special handling requirements for Class 1 wastes. An example is water contaminated with ethylene glycol.

Examples of **Class 2** wastes include waste-activated sludge from biological wastewater treatment. **Class 3** includes materials such as demolition debris—for example, bricks—that are insoluble, do not react with other materials, and do not decompose. Class 2 and 3 wastes are often accepted by local landfills. However, a Class 2 or 3 designation does not mean that the waste is incapable of causing harm in every management (or mismanagement) situation.

What This Booklet Explains How to Do

After you have worked through this booklet (and that includes consulting the rules referred to in it), you will be able to accomplish the following tasks:

- **Identify which wastes you must classify, code, and notify** the TCEQ about. Chapter 2 introduces a key concept—“waste streams”—that helps you decide these points.
- **Classify your waste.** Chapter 3 gives you a step-by-step approach for putting your waste into one of four categories: either *hazardous* waste or *nonhazardous* industrial waste Classes 1, 2, or 3.
- Know what kind of information (either from **process knowledge** about your facility’s operation or from **analytical testing**) that you must **document** and keep on **file** (Chapter 4).
- **Understand the 8-character Texas waste code.** Chapter 5 explains the components of the waste code:
 - ▼ 4-character **sequence number** (may be a number, letters, or a combination; generally, identifies a particular waste or where it came from);
 - ▼ 3-digit **form** code; and
 - ▼ 1-character classification (from Chapter 3).
- **Know how to notify TCEQ** about your wastes and **which TCEQ form** to use (Chapter 6).

Some Things This Booklet Does NOT Cover

Nonhazardous Nonindustrial Waste. The rules in 30 TAC Chapter 335, **do NOT** apply to **nonhazardous** waste generated by **nonindustrial** facilities.

Selective Coverage of Chapter 335

Also, please be aware that this guidance document only covers 2 subchapters (A and R) of 30 TAC Chapter 335, which contains 18 subchapters in all. This booklet covers only classification and coding, documentation you must create and keep on file, and notifications you must send to TCEQ (and the forms to use for that purpose). This booklet is not a substitute for the complete rules themselves. (You can obtain your own copies of the full, official state rules from the TCEQ’s publications unit. Ways to contact this unit are listed under the heading “TCEQ and EPA Forms” in Chapter 6.)

Classification versus Risk Reduction

There is an important distinction between (1) classifying your wastes; and (2) meeting the **risk reduction standards**, which are set forth in 30 TAC Chapter 335, Subchapter S. Here are the most common situations where the risk reduction standards apply:

- a facility that handled industrial wastes is being closed;
- a site where unauthorized discharge of wastes occurred is being cleaned up.

If you are involved in a situation like these, you need to inform yourself about the risk reduction standards. The guidance document you are now reading does not cover this topic. (Again, you can obtain a copy of Subchapter S, and other information, from the TCEQ publications unit—see the heading “TCEQ and EPA Forms” in Chapter 6.)

Who Are “You” in This Booklet?

Throughout this guidance document, generators of industrial and/or hazardous wastes will be referred to as “generator,” “generators,” or—for a more direct way of writing—simply as “you.” Also, 30 TAC Chapter 335, Subchapter R, will be referred to as “these rules” or “the rules.” Finally, “this booklet,” “this document,” or “this guidance document” refers to *Guidelines for the Classification and Coding of Industrial and Hazardous Wastes*, TCEQ Publication Number RG-022—the booklet you are now reading.

“Waste Streams”—A Key Concept

When the preceding chapter mentioned that this booklet will instruct you on how to classify, code and report about wastes, a question that naturally might have come to your mind is “**How** do I know which wastes must be classified, coded, and reported?” (The general answer is that you must perform these processes on all hazardous wastes and nonhazardous industrial wastes.)

In discussing this point, federal regulators use the term *waste stream*, in both of the following senses: First, it can mean the total flow of all waste from homes, businesses, and industry. Second, within this total flow, smaller “waste streams” can be distinguished—for example, “the residential waste stream,” “the recyclable waste stream,” and others.

Similarly, within the overall flow of waste from your ordinary operations or processes, a number of particular waste streams can be identified. For example if your process ordinarily produces a hazardous acidic waste, and at some point you neutralize that waste, these are two separately identifiable “waste streams.”

Each waste stream—the acidic waste and the neutralized waste, in this example—must be identified by an 8-character Texas waste code, which identifies the waste stream as a separate entity and gives information about its origin, general nature, and hazardous status. (Chapters 3 through 5 go into the details of how this 8-character code is arrived at.)

Table 2-1 gives examples of some situations in which the waste flow from an operation or process can produce more than one waste stream, each of which must be classified and coded; and an example of a situation that does *not* result in more than one waste stream. For specific guidance on specific waste streams, contact the TCEQ.

In general, whenever you have or suspect the existence of an additional, distinct waste stream, you must determine its classification (Chapter 3), arrive at a Texas waste code for it (Chapter 5), and in most cases notify TCEQ about the additional waste stream (Chapter 6—which also gives details about some of the exceptions to the requirements for notification: for example, a slight change or variation in a waste stream’s composition may not require notification.)

Table 2-1. An Operation’s Overall Waste Flow Can Produce Multiple “Waste Streams”

IF you have WASTES that are ...	AND they come from PROCESSES that are ...	THEN the wastes are considered ...
different	similar	different “waste streams”—for example, a sludge removed from an electroplating vat is not the same waste stream as a liquid removed from an electroplating vat.
similar	different	different “waste streams”—for example, methylene chloride used in a paint-stripping operation is not the same waste stream as methylene chloride used in laboratory analysis.
similar	similar	the same “waste stream”—for example, a site may have several paint booths that perform the same activities with the same materials, and each produces drop cloth waste. These drop cloth wastes, from the various locations at this site, could be considered one waste stream as long as they were all classified the same (for more on classification, see Chapter 3).
altered physically or chemically by treatment	N/A	different “waste streams”—for example, if a sludge is dewatered, it may produce two new waste streams, one a solid and the other a liquid.

Waste Classification Checklist

This chapter provides a checklist to help you classify your hazardous waste and your nonhazardous industrial waste. For an overview of these types of waste, refer back to Figure 1 in Chapter 1; for more details, refer to 30 TAC Chapter 335 Subchapter R Sections 335.501–508. (You can obtain your own copy of state rules from the TCEQ publications unit; ways to contact this unit are listed under the heading “TCEQ and EPA Forms” in Chapter 6.)

Process Knowledge vs. Analytical Testing

In determining a waste stream’s classification, a generator may use *process knowledge* and/or *analytical testing*. Process knowledge is the owner or operator’s knowledge about how the facility operates, how a waste was produced and handled, and other information based on operating experience. Analytical testing is information about a waste from laboratory analysis.

In the checklist, the nonhazardous classification criteria that could involve analytical testing have been marked with an *. This marking **does not** mean that analytical testing is the only way to evaluate these criteria. If sufficient process knowledge is available, little or no analysis may need to be performed. You should evaluate whether you have enough process knowledge about the waste to classify it or whether analytical testing is needed.

Documentation

Regardless of whether you rely on process knowledge or opt for analytical testing, you must fully document the information used in making your waste classification. **A completed checklist does not qualify as full documentation.** Documentation should be in a written and/or electronically stored format that is reasonably accessible and easily reproducible. For details on documentation requirements, see Chapter 4.

Part I. Hazardous Waste Determination

All waste generators should work through Part I of this checklist. In this part you will determine whether your waste is hazardous because (a) it is listed as hazardous by EPA or (b) it displays characteristics that EPA says make it hazardous.

In federal regulatory language, the first step in classifying your waste is called “making a *hazardous waste determination*.” The definition of hazardous waste, based upon the Resource Conservation and Recovery Act (RCRA), is found in Title 40 of the Code of Federal Regulations (CFR), Part 261.

This TCEQ guidance document reflects the hazardous waste definition in the *Federal Register* as of July 1, 2004. If that definition changes, the generator is still responsible for making an accurate hazardous waste determination in accordance with the latest regulations—instead of with what is printed in this guidance document.

IF the answer to any of the questions in Part I is “Yes,”
THEN the waste is hazardous.

Possible Exclusions from Hazardous Classification

Under certain conditions, some types of wastes are excluded from being considered hazardous (40 CFR Sections 261.3–4). Generators may wish to review these exclusions before working through Part I of this checklist.

Part I-A. *Listed* Hazardous Waste Determination

The EPA lists some 400 hazardous wastes.

Information to Help You Make This Determination

Descriptions of listed waste are found in 40 CFR Part 261, Subpart D, Sections 261.31–33. These wastes are often referred to as follows:

- “F” listed waste (waste from nonspecific sources, Section 261.31);
- “K” listed waste (wastes from specific sources, Section 261.32);
- “P” listed waste (unused acutely hazardous off-specification materials as well as container residues and spill residues of these materials, Section 261.33);
- “U” listed waste (unused toxic hazardous off-specification materials as well as container residues and spill residues of these materials, Section 261.33).

QUESTION: Is the waste a listed hazardous waste, or is it mixed with or derived from one? ☐ Yes ☐ No

Part I-B. *Characteristic* Hazardous Waste Determination

Wastes may be hazardous if they display any of four characteristics: ignitability, corrosiveness, reactivity, or toxicity.

Information to Help You Make This Determination

Ignitability

Wastes that are hazardous because they may ignite include the following:

- Liquid wastes (other than those aqueous waste containing less than 24 percent alcohol by volume) that have a flash point less than 60°C (140°F). (The test method is the Pensky-Martens closed cup tester, using the test method specified in ASTM Standard D-93-79 or D-93-80, or a Setaflash closed cup tester, using the test method specified in ASTM Standard D-3278-78.)
- Nonliquid wastes that, under standard temperature and pressure, are capable of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burn so vigorously and persistently that they create a hazard.
- Wastes that meet the definition of an ignitable compressed gas (see 49 CFR Section 173.300).
- Wastes that meet the definition of an oxidizer (see 49 CFR Section 173.151).

QUESTION: Is the waste ignitable according to 40 CFR Section 261.21? ☐ Yes ☐ No

Corrosiveness

Wastes that are hazardous because they are corrosive include the following:

- aqueous wastes with a pH of 2 units or below or of 12.5 units or above;
- liquid wastes that corrode steel at a rate greater than 6.35 mm (0.250 inches) per year.

QUESTION: Is the waste corrosive according to 40 CFR Section 261.22? ☐ Yes ☐ No

Reactivity

A waste is considered reactive if it meets any of the following conditions:

- It is capable of detonation or explosive decomposition or reaction
 - ▼ at standard temperature and pressure,
 - ▼ if subjected to a strong ignition source, or
 - ▼ if heated under confinement.
- When mixed with water, it is
 - ▼ potentially explosive,
 - ▼ reacts violently, or
 - ▼ generates toxic gases or vapors.
- If a cyanide or sulfide-bearing waste is exposed to pH conditions between 2 and 12.5, it can generate enough toxic gases, vapors, or fumes to present a danger to human health or the environment. Generally, if a waste generates **250 ppm** or more of reactive cyanides or **500 ppm** or more of reactive sulfides, it is considered a reactive waste. (It should be noted that these levels of reactive compounds are just guidance. Each waste must be evaluated for reactivity on a case-by-case basis).
- It is normally unstable and readily undergoes violent change without detonating.
- It is a forbidden explosive (as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53).
- It is a Class B explosive (see 49 CFR Section 173.88).

QUESTION: Is the waste reactive according to 40 CFR Section 261.23?

☐ Yes ☐ No

Toxicity

A waste is toxic if the toxicity characteristic leaching procedure (TCLP) shows that a representative sample from the waste contains one or more constituents at or above the levels listed in Table 3-1. The TCLP is described in EPA Method 1311 (SW-846).

QUESTION: Is the waste toxic according to 40 CFR Section 261.24?

☐ Yes ☐ No

Table 3-1. TCLP Regulatory Levels

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

Review of Checklist Part I—Hazardous Waste

IF the answer to any of the preceding questions in Part I is “Yes,”
THEN the waste is HAZARDOUS; PROCEED to Chapter 4.

IF the answers are “No” to all the preceding questions,
AND the waste is NONINDUSTRIAL,
THEN STOP here.

IF the answers are “No” to all of the preceding questions,
AND the waste is INDUSTRIAL,
THEN PROCEED to Part II.

Part II: Nonhazardous Industrial Waste Classes 1 & 2

The determination in this part of the checklist applies only to nonhazardous industrial waste—see figure 1 in Chapter 1. (This part of the checklist is based on regulations found in 30 TAC Sections 335.505–06 and 335.508).

IF the answer to any of the **un-numbered** questions
in this part of the checklist is “Yes,”
THEN the nonhazardous industrial waste is a Class 1 waste.

IF all the answers to the **un-numbered** questions in this part are “No,”
THEN the industrial waste is a Class 2 waste.

Generator’s Self-Classification

QUESTION: Has the generator chosen to classify its nonhazardous waste as Class 1? ☐ Yes ☐ No

Container Waste

IF the waste is a container, greater than 5 gallons
in holding capacity, which has held

- ▼ a hazardous substance (as defined in 40 CFR Part 302
and listed in Appendix A of this guidance document),
- ▼ a hazardous waste (including acutely hazardous wastes),
- ▼ a Class 1 waste, and/or
- ▼ a material that would be classified as a hazardous or
Class 1 waste if disposed of,

THEN answer questions 1 and 2. *(Please note that containers that have held acutely hazardous wastes must be triple-rinsed before they can be classified as empty).*

IF these conditions are not present in your situation,
THEN proceed to the next un-numbered question.

1. Has the container had all its residues removed? ☐ Yes ☐ No
2. Has the container been rendered unusable? ☐ Yes ☐ No

QUESTION: Are **any** of the answers to questions (1) or (2) above “NO”? ☐ Yes ☐ No

Regulated Asbestos-Containing Material (RACM)

(See Chapter 8, Definition of Terms, for information on RACM.)

QUESTION: Does the waste contain asbestos material identified as RACM, as defined in 40 CFR Part 61? *

☐ Yes ☐ No

Polychlorinated Biphenyls (PCBs)

QUESTION: Is the waste contaminated by a material that originally contained 50 or more parts per million (ppm) total PCBs? *

☐ Yes ☐ No

QUESTION: Does the waste contain 50 or more ppm PCBs?*

☐ Yes ☐ No

Petroleum Substance Waste

1. Is your waste specifically identified as a *petroleum substance* (see Chapter 8, Definitions of Terms) or contaminated with a material identified as a petroleum substance waste?

☐ Yes ☐ No

2. Does the waste contain more than 1,500 ppm total petroleum hydrocarbons (TPH)?

☐ Yes ☐ No

QUESTION: Are the answers to **both** of the numbered questions above “Yes”?
(If one or both of the answers are “No,” enter “No” for this question.)

☐ Yes ☐ No

“New Chemical Substance”

See “new chemical substances wastes” in Chapter 8, Definitions and Terms, for a description of how this particular type of waste may be classified as Class 2 or 3.

QUESTION: Is the waste from the production of a “new chemical substance,” as defined by the federal Toxic Substances Control Act, 15 U.S.C.A. Section 2602(9)?

☐ Yes ☐ No

Out-of-State Origin

See “wastes generated out-of-state” in Chapter 8, Definitions of Terms, for details on how this particular type of waste may be classified as Class 2 or 3.

QUESTION: Is the waste generated outside Texas?

☐ Yes ☐ No

Constituent Levels and Specified Properties for Nonhazardous Industrial Class 1 Wastes

QUESTION: If the waste is a liquid, does it have a flash point of less than 65.6°C (150°F)? *

☐ Yes ☐ No

QUESTION: Is the waste a solid or semi-solid that—under conditions normally encountered in storage, transportation, and disposal—

■ is liable to cause fires through friction or through retained heat from manufacturing or processing; or

■ can be ignited readily, and when ignited burns so vigorously and persistently as to create a serious hazard?

☐ Yes ☐ No

QUESTION: Is the waste a semi-solid or solid that, when mixed with an equivalent weight of ASTM Type II laboratory distilled or deionized water, produces a solution with a pH of 2 or less or 12.5 or more?

☐ Yes ☐ No

(Exception: for solidified, stabilized, encapsulated, or otherwise chemically bound wastes, an exception is provided in 30 TAC Section 335.505(3)) *

QUESTION: Does the waste leach Class 1 toxic constituents at or above the levels listed in Table 1, Appendix 1 of 30 TAC Chapter 335 Subchapter R when submitted to the toxicity characteristic leaching procedure (TCLP)? *

☐ Yes ☐ No

(For a copy of Table 1, Appendix 1, see Appendix C of this guidance document.)

(Where matrix interferences of the waste cause the Practical Quantitation Limit (PQL) of the specific analysis to be greater than the Maximum Concentration listed in Table 1, Appendix 1 of 30 TAC Chapter 335 Subchapter R, then the achievable PQL becomes the Maximum Concentration, provided that the generator maintains documentation that satisfactorily demonstrates to the TCEQ that lower levels of quantitation of a sample are not possible.)

A satisfactory demonstration includes the results from the analysis of the waste for that specific constituent by a laboratory using an appropriate method found in *Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods* (EPA SW-846); *Methods or Chemical Analysis of Water and Wastes* (EPA-600 series); *Standard Methods for the Examination of Water and Wastewater*; *American Society for Testing and Materials (ASTM) Standard Methods*; or an equivalent method approved by the TCEQ.

Lack of Class 2 or 3 Information

QUESTION: Is information lacking that demonstrates the waste belongs in Class 2 or 3?

☐ Yes ☐ No

Review of Checklist Part II: Class 1 or 2 Nonhazardous Industrial Waste

IF the answer to any of the preceding
un-numbered questions in Part II is "Yes,"
THEN the nonhazardous industrial waste is a Class 1 waste.
PROCEED to Chapter 4.

IF the answers are "No" to all the preceding
un-numbered questions in Part II,
THEN the industrial waste is a Class 2 waste.
PROCEED to Chapter 4.

IF the answers are "No" to all of the preceding
un-numbered questions in Part II,
AND the industrial generator wishes to evaluate
the waste for a possible Class 3 status,
THEN PROCEED to Part III.

Part III: Nonhazardous Industrial Class 3 Waste

This part of the checklist applies only to nonhazardous, industrial waste that does not meet the definition of a Class 1 waste and is not specifically identified as a Class 2 waste. (The corresponding regulations for this part of the checklist can be found in 30 TAC Sections 335.507 and 335.508.)

Part III-A. Initial Determinations for Class 3 Status

IF the answer to any of the following questions in Part III-A is “Yes,”
THEN the nonhazardous, industrial waste **cannot** be considered a Class 3 waste.

Containers

QUESTION: Is the waste an empty container? ☐ Yes ☐ No

Medical Waste

(For a definition, see “medical wastes” in Chapter 8.)

QUESTION: Is the waste a medical waste regulated under 30 TAC Chapter 330, Subchapter Y? ☐ Yes ☐ No

Distilled Water Leaching Test

QUESTION: When subjected to the 7-day distilled water leaching test, does the waste leach constituents at or above the maximum contaminant levels listed in Table 3, Appendix 1 of 30 TAC Chapter 335, Subchapter R? *

☐ Yes ☐ No

(Table 3 is reproduced in Appendix D of this guidance document.)

Toxicity Characteristic Leaching Procedure

QUESTION: When submitted to the toxicity characteristic leaching procedure (TCLP), does the waste leach Class 1 toxic constituents listed in Table 1, Appendix 1 of 30 TAC Chapter 335 Subchapter R at or above their detection levels? *

☐ Yes ☐ No

(The list of Class 1 toxic constituents is reproduced in Appendix E of this guidance document.)

Exclusion: Excluded from this list of Class 1 toxic constituents are those addressed in the previous question (that is, constituents identified in Table 3, Appendix 1 of 30 TAC Chapter 335 Subchapter R).

Petroleum Hydrocarbons

QUESTION: Does the waste contain detectable levels of petroleum hydrocarbons (Method 1005)? *

☐ Yes ☐ No

Polychlorinated Biphenyls (PCBs)

QUESTION: Does the waste contain detectable levels of PCBs? *

☐ Yes ☐ No

Decomposition

QUESTION: Is the waste readily decomposable?

☐ Yes ☐ No

Review of Checklist Part III-A: Class 3 Nonhazardous Industrial Waste

IF the answer to any of the preceding questions in Part III-A is “Yes,”
THEN the nonhazardous, industrial waste **cannot** be considered a Class 3 waste.

IF all the answers to the preceding questions in Part III-A are “No,”
THEN proceed to Part III-B to continue the waste’s evaluation for possible Class 3 status.

Part III-B: Final Determinations for Class 3 Status

Inertness

QUESTION: Is the waste inert? (Inertness refers to chemical inactivity of an element, a compound, or a waste.)

☐ Yes ☐ No

Insolubility

QUESTION: Is the waste essentially insoluble?
(**Note:** wastes that contain liquids are **NOT** considered insoluble.)

☐ Yes ☐ No

Review of Checklist Part III

IF the answer to any question under Part III-B is “No,”
THEN the nonhazardous, industrial waste **cannot** be considered a Class 3 waste.

IF all the answers to the questions in Part III-A are “No,”
AND all the answers to the questions in Part III-B are “YES,”
THEN the nonhazardous industrial waste is a Class 3 waste.

Part IV. Variance from Waste Classification

The TCEQ may determine, on a case-by-case basis, the merits of a variance request for a specific nonhazardous classification. The burden of justifying the need for a variance is on the requestor. The requestor must submit information sufficient to clearly indicate the issues involved, the reason(s) for the request, and both the positive and negative impacts that may result from the granting of the variance. (The regulations corresponding to these types of variance requests can be found in 30 TAC Section 335.514, Variance from Waste Classification Provisions.)

* **As a reminder**, these characteristics need not necessarily be addressed by analytical testing. A generator may be able to address them through process knowledge. For more information on process knowledge, please see Chapter 4 of this guidance document.

Process Knowledge, Analytical Testing, and Documentation Requirements

Introduction

Now that you know how to classify your wastes, you are ready to compile supporting documentation. Documentation should support the classification and coding of a waste stream. You must properly document each waste stream generated by the facility, and keep that documentation for at least three years after the waste is no longer generated, stored, or recycled or until the site is closed.

The regulations on documentation requirements can be found in 30 TAC Section 335.9 (Record Keeping and Annual Reporting Procedures Applicable to Generators), Section 335.70 (Record Keeping), Section 335.510 (Sampling Documentation), Section 335.511 (Use of Process Knowledge), and Section 335.513 (Documentation Required).

The TCEQ randomly audits a portion of waste stream *notifications* (see Chapter 6) in order to ensure proper classification and coding of waste in Texas. When the TCEQ sends you a request for information for the purpose of an audit, you must send the agency the information that you have gathered to make your hazardous waste determination/waste classification. Please use Chapter 4 as a guide to compiling supporting documentation for each waste stream generated at your facility.

Process Knowledge

If process knowledge is used in classifying a waste, that knowledge must be documented and kept on file for three years. Process knowledge must be in writing or stored in some electronic form. It cannot be stored solely in someone's mind. The process knowledge must support a generator's reasoning about why the waste has been given a particular classification. It must also support the generator's reasoning about why a particular test method was not performed.

The following are some examples of process knowledge that may assist in classifying waste:

- description of the waste;
- date of initial waste generation;
- a detailed description of the process generating the waste (that is, identification of chemicals or other materials in the process that generated the waste stream (including any potential breakdown products);
- manufacturer's literature such as Material Safety Data Sheets—MSDSs (although they were not created for the purpose of determining Texas waste classification, and do not contain information on all constituents found in a product, MSDSs may be helpful);
- full description of activities that generated the waste stream;
- identification of potential contaminants;
- other documentation generated in conjunction with the particular process.

Analytical Data

If a generator uses analytical data to classify a waste, the data must be supported by documentation of the sampling procedure and the analytical testing. The following lists specify information that must be maintained when analytical data is used for classification purposes.

Sampling Procedures

The following procedure must be documented:

- dates of sample collection;
- description of the site and/or unit from which the sample was taken, including sampling locations;
- the method and equipment used for sampling;
- a description of the sampling techniques, including collection, containerization, and preservation;

- rationale—that is, supporting reasons—for the sampling plan (why the number, type, and location of samples taken accurately represent the waste stream being characterized).

Analytical Testing

Documentation of analytical testing must include the following:

- Analytical **results** (including quality control data).
- Analytical **methods** (including any preparatory methods).
- The **detection limits** for each analysis.
- **Name of laboratory** performing the analysis.
- **Chain of custody**—documentation tracking the condition of the waste containers. For example, were the waste containers and their seal intact or broken upon arrival at the laboratory? Were the containers full, half-full, or empty? Did all the containers arrive at the laboratory or just a partial shipment?
- Documentation that satisfactorily demonstrates that lower levels of *quantitation* are not possible (this is only necessary when the waste media causes the *Estimated Quantitation Limit* (EQL) of a Class 1 toxic constituent (as listed in Appendix E of this guidance document) to be greater than the concentration listed (*matrix interference*). (Terms in italics are explained in Chapter 8.)

Classification Checklist

Although the checklist in Chapter 3 can be used to help classify industrial and hazardous waste, a generator should support the checklist’s “yes” or “no” responses with process knowledge and/or ana-

lytical data. A completed checklist by itself is not sufficient documentation to submit to the TCEQ in response to a random audit of classification.

For example, a generator answers “no” to the question “Is the waste ignitable according to 40 CFR Section 261.21.” You can support this response by submitting process knowledge, analytical data, or both. If process knowledge is used, it must be **specific**. A general statement such as “the waste is not ignitable” would not be sufficient.

Instead, you should document specific actions you took and their results, such as (1) reviewed all constituents that may be present in the waste; (2) determined that each constituent present in the waste does not meet the definition of an ignitable waste; and (3) determined that the process generating the waste does not introduce any ignitable characteristics to the waste stream. You should keep copies of your documentation demonstrating that the constituents in the waste stream would not cause the waste to exhibit the characteristic of ignitability.

Rule of Thumb about Documentation

Remember that documentation should demonstrate why a waste has been given a particular classification. Here’s a good rule of thumb: if someone else can review your classification documentation, using the published criteria and/or the checklist, and arrive at the same classification you did, then you have probably done a good job of compiling supporting documentation for a waste classification. On the other hand, if someone reviews your classification and still has unanswered questions, then you may want to gather additional documentation (from process knowledge and/or analytical data) to support your classification of that waste stream.

Texas Waste Code Formula

Chapter 5 describes the 8-digit Texas waste code that identifies each of your waste streams. (Part of the information to complete this waste code comes from the waste determination process (described in Chapter 3) and from the documentation you must compile and keep on hand (described in Chapter 4).)

The formula for the Texas waste code is given in Figure 5-1. The rules corresponding to this formula can be found in 30 TAC Section 335.503 (Waste Classification and Waste Coding Required).

Sequence Number

Although called a sequence “number,” this part of the code may contain a mix of numbers and letters—alphanumeric; and sometimes it may consist of letters alone. Various types of 4-digit sequence numbers are used in the Texas waste code.

- An **arbitrary and unique 4-digit number from 0001 to 9999** (no alpha characters), which is assigned by the generator when adding a waste stream to Texas facility’s *Notice of Registration* (see Chapter 6, Notification Requirements). Once assigned to a particular waste stream, a sequence number **cannot be reassigned** to another waste stream. Generators need not sequentially assign sequence numbers to a facility’s waste streams.
- A **4-digit alphanumeric number** assigned by the TCEQ (under the **one-time shipment program**) to wastes generated by unregistered generators within Texas. (Spill waste not managed under the Emergency Response Program may be handled in this manner.)
- **“SPIL”** to be assigned only by the Emergency Response Team of the Field Operations Division **for spill wastes regulated under the Emergency Response Program**.
- **“OUTS”** to be used for **wastes generated outside of Texas**.
- **“CESQ”** to be used by **municipal hazardous and industrial CESQs** (Conditionally Exempt Small-Quantity Generators).
- **“TSDF”** (treatment, storage, and disposal facilities), to be used by facilities that

(1) receive and consolidate a waste stream with other like waste streams (thus not changing the form or composition of the waste); or (2) store a received waste without treating or changing its form or composition. This sequence number does not apply to wastes that are treated or altered in some other way. The “TSDF” designation is to be used only by **facilities that store and/or accumulate waste** from more than one site for subsequent shipment to a treatment or disposal facility.

Form Code

The second series of numbers found in the Texas waste code is the “form code.” The list of form codes as well as flowcharts that depict the choosing of a form code can be found in Appendix G.

Form codes are broken down into 10 major categories. They are Lab Packs, Inorganic Liquids, Organic Liquids, Inorganic Solids, Organic Solids, Inorganic Sludges, Organic Sludges, Inorganic Gases, Organic Gases, and Plant Trash. The various form codes and corresponding descriptions can be found under these categories in Appendix G.

In determining a waste stream’s form code, TCEQ recommends that the generator first determine the major category into which the waste stream fits. Then review all the form code descriptions in that category to determine which code or codes best describe your waste stream. From this narrowed-down list, choose a form code for the waste stream.

Classification

The waste stream’s classification completes the Texas waste code. As Figure 5-1 showed, this part of the Texas waste code will be “H” or “1”, “2”, or “3”.

Stop! Are You about to Misclassify a Waste?

Table 5-1 provides additional information about using certain combinations of form and class codes.

Figure 5-1. Components of a Texas Waste Code

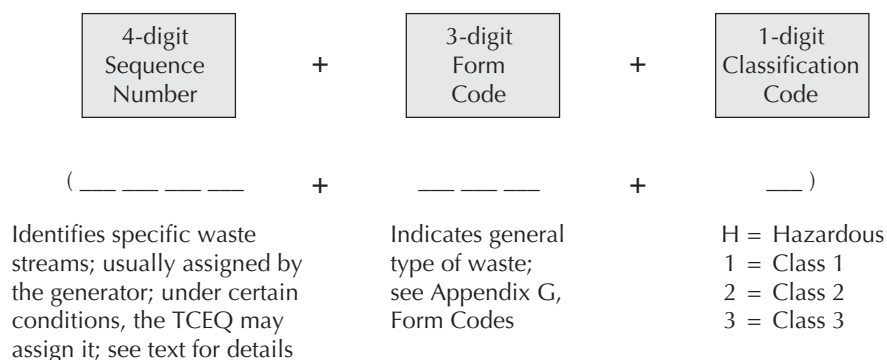


Table 5-1. Questions to Ask about Some Combinations of Coding and Classification

IF the waste is ...	AND you assigned form codes ...	Are you sure about a classification of ...
Any Class 3 waste	Any form code	<i>Class 3?</i> (You must submit all supporting documentation)
Asbestos solids, debris, slurry, sludge, etc.	311, 515	<i>Class 2?</i> (Wastes that contain regulated asbestos-containing material are Class 1)
Oils	205, 206 ^a	<i>Class 2?</i> (Wastes that contain more than 1,500 ppm total petroleum hydrocarbons are Class 1)
PCB-containing materials	297,298,394,395,396,397, 398,399,494,495,496,497, 498,499,598,599,698,699	<i>Class 2?</i> (Wastes that contain 50 ppm or more PCBs are Class 1)
Petroleum-containing materials	205,206 ^a ,296,489,510,603, 606,695,696	(Petroleum substance wastes that contain more than 1,500 ppm total petroleum hydrocarbons are Class 1)
Plant trash	902 and 999 ^b	<i>Hazardous, Class 1, or Class 3?</i> (Only wastes that are Class 2 may be given a form code for plant trash)
Spent lead acid batteries	309 ^c	Hazardous

^aIf your waste oil is nonhazardous, is managed under 40 CFR 279 and 30 TAC 324, and is recycled 100 percent, then do not add to your Notice of Registration (the central record that the TCEQ compiles from waste notifications you send in—see Chapter 6, Notification Requirements and Forms).

^bOnly form codes 902 and 999 may be used.

^cIf all your lead acid batteries are managed under the “universal waste” rule in 40 CFR Part 273, then do not add to your Notice of Registration.

Notification Requirements and Forms

This chapter describes forms and supporting documentation you must send to the TCEQ to notify the agency about waste streams that you generate. The regulations on notification can be found in 30 TAC Section 335.6 (Notification Requirements), Section 335.502 (Conversion to New Waste Notification and Classification System), Section 335.508 (Classification of Specific Industrial Solid Wastes), Section 335.509 (Waste Analysis), and Section 335.513 (Documentation Required).

Notifications about Industrial or Hazardous Waste

You must submit information about industrial or hazardous wastes no later than 90 days after the waste's initial generation and before handling, shipment, or disposal; use TCEQ form 00002 or the TCEQ State of Texas Environmental Electronic Reporting System (STEERS) software. (For information on obtaining TCEQ forms and how to access the STEERS information, see this chapter's section "TCEQ and EPA Forms.")

Please Note: All Large-Quantity Generators (LQG) **must** use STEERS to update their Notice of Registration (NOR). This requirement, effective December 15, 1997, is found in 30 TAC Section 335.6(b). Therefore, if you are a LQG and you need to update your NOR to replace inactivated waste code, please do so using STEERS.

The TCEQ uses the information submitted on these forms to create a record called the **Notice of Registration**, which contains site-specific waste management information about industrial and municipal hazardous waste generators in Texas.

Notifications about New Chemical Substance Waste

For a Class 2 or Class 3 waste generated as the result of the production of a "new chemical substance" (see Chapter 8, Definitions of Terms), you must follow the instructions below:

- Give the TCEQ notice that the waste is from the production of a "new chemical substance."
- Submit all supporting reasons and documentation used in that waste's classification.
- Manage nonhazardous waste from the production of a "new chemical substance" as a Class 1 waste, unless you can provide appropriate analytical data and/or process knowledge demonstrating that the waste meets the definition of a Class 2 or Class 3, and the TCEQ concurs. (For definitions of Class 2 and 3, see Chapter 8 and the classification checklist in Chapter 3.)
- If you have not received concurrence or denial from the TCEQ within 120 days from the date of your request for review, you may manage the waste according to the requested classification, but you must give the TCEQ 10 working days written notice before managing the waste as a Class 2 or a Class 3.

Notifications about Class 2 and Class 3 Out-of-State Waste

If you want to ship a nonhazardous waste into Texas, it is automatically considered a Class 1 waste (and expected to be managed as such) unless

- you request the TCEQ to review your waste classification documentation supporting a lower classification such as Class 2 or 3; and
- the TCEQ concurs with the lower classification.

After concurrence from the TCEQ you must comply with the lower classification's requirements on shipping, record keeping, and disposal of the waste. If, after review of your documentation, the TCEQ disagrees with your waste classification, you must continue managing the nonhazardous waste as Class 1 waste.

Notifications about Other Industrial and Hazardous Wastes from out of State

Please note the following special requirements for the documentation of industrial and hazardous waste that is imported to Texas from foreign countries and other U.S. states.

- If out-of-state generators and importers of record want to bring hazardous waste into Texas, they must have an EPA Identification number. Generators and importers who do not have this ID number must obtain one from the EPA, using EPA Form 8700-12.
- Out-of-state generators or importers of record must fill out a Uniform Hazardous Waste Manifest (TCEQ-00311) and place their EPA ID number in Box 1 of this form.
- In Box B of the Uniform Hazardous Waste Manifest, use one of the generic numbers for identifying the country or state of origin. For example: F0061 for hazardous and or nonhazardous industrial waste imported from Mexico, D0022 for Louisiana (Appendix H gives these codes). For more information about manifesting imported industrial and hazardous waste, see 40 CFR 262.60 and 30 TAC 335.76 (d).
- OUTS must be used as the 4-digit sequence number of the Texas waste code in Box I of the manifest.

Notifications about Alternate Analytical Methods

Generators who propose an alternate analytical method must validate their alternate method by demonstrating that it is equal to or superior in accuracy, precision, and sensitivity to the corresponding EPA-approved methods for analytical testing given in *Standard Methods for the Examination of Water and Wastewater*, SW-846, EPA-600/4-79/020.

In making this demonstration, the generator must provide the TCEQ, at a minimum, the following documentation:

- a full description of the proposed method (including all equipment and reagents to be used);
- a description of type of waste and *waste matrices* to be analyzed (for definitions of terms in italics, see Chapter 8);

- comparative results of the proposed method and corresponding SW-846 or ASTM method;
- a complete assessment of interferences with the proposed method (see, for example, *matrix interference* in Chapter 8);
- a description of quality control procedures;
- additional information as needed and/or requested by the TCEQ to adequately review the proposed alternate method.

TCEQ and EPA Forms

How to Order

Notification forms can be obtained in several ways:

- Contact the TCEQ regional office near you.
- On the Internet go to <http://www.tceq.state.tx.us> and select the “Forms & Publications” link. Access the Forms Database and type in the form number. (The instructions for form TCEQ-00002 are in a separate download file).
- Fax your order to 512/239-4488, or order forms by voice at 512/239-0028, the TCEQ’s publications unit. Be sure to give the form **numbers** that you want; this information will help the TCEQ get the correct form to you as quickly as possible.

How to Access STEERS

State of Texas Environmental Electronic Reporting System (STEERS) information, including an application package, can be obtained as follows:

- on the Internet, go to <https://www2.tceq.state.tx.us/steers>; or
- call the STEERS Help Line at (512) 239-6925.

Currently Available Forms

Notification forms available at the time of this printing include the following:

- The hazardous or industrial waste “**Initial Notification Form**,” used for initial notification about a site, and adding a waste stream to your Notice of Registration (see chapter 6) or when recording a 6-digit waste code into one or more 8-digit waste codes. (form number: **TCEQ-00002**)
- The “**Hazardous or Industrial Waste Management Unit Form**,” used when adding information about a waste management unit to a Notice of Registration. (form number: **TCEQ-00002**)

- The “**Uniform Hazardous Waste Manifest,**” used by generators and transporters of hazardous waste and by owners or operators of hazardous waste treatment, storage, and disposal facilities for both inter- and intrastate transportation. (form number: **TCEQ-00311**—Only order form available on the Web)
- The “**One-Time Shipment Request ... for Shipment of Class 1, 2, 3 and EPA Hazardous Waste,**” used by unregistered generators,

not by generators that already have a site’s Notice of Registration. (form number: **TCEQ-00757**)

- The EPA “**Notification of Regulated Waste Activity**” form, used when notifying EPA of a federally regulated hazardous waste activity—for example, the generation of hazardous waste. (form number: **EPA 8700-12**—Available on the Web as part of TCEQ-00002)

Management of Mechanical Shredding Wastes

The regulations on mechanical shredding waste can be found in 30 TAC Section 335.508 (Classification of Specific Industrial Solid Wastes).

Wastes generated by the mechanical shredding of automobiles, appliances, or other items of scrap, used, or obsolete metals are handled according to the provisions of the Texas Solid Waste Disposal Act, Health and Safety Code, Section 361.019 (Vernon Pamphlet 1992), until the TCEQ develops specific

standards for the classification of this waste and ensures adequate disposal capacity.

These provisions say that you can dispose of mechanical shredding wastes in a municipal landfill facility authorized to accept Class 1 and 2 industrial solid wastes, if the shredding waste:

- contains no free liquids, and
- is not a hazardous waste.

As mentioned earlier, TCEQ may establish other requirements.

Definitions of Terms

For readers' convenience, this chapter gives the full version of some abbreviations and brief descriptions of some important terms used in this guidance document. Full, official definitions can be found in the sources cited. Nothing in this chapter takes the place of any definitions in laws, rules, or regulations.

Acutely hazardous wastes (40 Code of Federal Regulations (CFRs) Parts 261.31–33 and subject to the exclusion established in 40 CFR Part 261.5: EPA hazardous waste numbers F020, F022, F023, F026, and F027)—A subset of *listed hazardous wastes* that carry the “H” code; they are considered very harmful to human health and the environment.

ASTM—American Society for Testing and Material

CFR—Code of Federal Regulations

Characteristically hazardous waste (40 CFR Part 261 Subpart C)—Any waste that exhibits the characteristics of ignitability, corrosivity, reactivity, and/or toxicity as defined by the EPA in 40 CFR Part 261 Subpart C. These are often referred to as the “D” wastes. (Also see Chapter 3 of this guidance document.)

Class 1 waste [30 TAC Section 335.1(14)]—Any waste or mixture of waste that, because of its concentration or physical or chemical characteristics is toxic; corrosive; flammable; a strong sensitizer or irritant; a generator of sudden pressure by decomposition, heat, or other means; or may pose a substantial present or potential danger to human health or the environment when improperly processed, stored, transported, disposed of, or otherwise managed. (The checklist in Chapter 3 takes you through the process of distinguishing hazardous waste from nonhazardous Class 1 waste.)

Class 2 waste [30 TAC Section 335.1(15)]—Any individual waste or combination of waste that cannot be described as hazardous waste or as nonhazardous Class 1 or Class 3 waste.

Class 3 waste [30 TAC Section 335.1(16)]—Waste that is *inert* and *essentially insoluble* (see definitions of terms in italics), usually including but not limited to materials such as rock, brick, glass, dirt, certain plastics, rubber, and similar materials that are not readily decomposable.

Classification code (30 TAC Section 335.503)—This last digit of the Texas waste code

represents the classification of the waste stream. The letter H represents hazardous wastes; and the number 1, 2, or 3 represents nonhazardous industrial waste Class 1, 2, or 3.

Conditionally Exempt Small-Quantity Generator (30 TAC Section 335.78)—Generators of less than 100 kg (220 lbs) per month of hazardous waste, or less than 1 kg (2.2 lbs) per month of *acutely hazardous waste* (see description of term in italics in this chapter).

Essential insolubility (30 TAC Section 335.507)—Is established when using:

- the Seven-Day Distilled Water Leachate Test, and the extract from the sample of waste does not leach greater than the Maximum Contaminant Level listed in Appendix 1, Table 3 of 30 TAC Chapter 335, Subchapter R;
- the test methods described in 40 Code of Federal Regulations Part 261, Appendix II, and the extract from the sample of waste does not exhibit detectable levels of the constituents found in Appendix 1, Table 1 of 30 TAC Chapter 335, Subchapter R;
- an appropriate test method, and a representative sampling of the waste does not exhibit detectable levels of total petroleum hydrocarbon (TPH); (“Petroleum substance wastes” are not subject to 30 TAC’s subsection on essential insolubility.)
- an appropriate test method, and a representative sampling of the waste does not exhibit detectable levels of polychlorinated biphenyls (PCBs).

Form code (30 TAC Section 335.503)—This code describes the general type of waste stream. It consists of three numbers, the 5th, 6th, and 7th digits in the Texas waste code (see Figure 4-1 in Chapter 4). More than one form code may apply to a particular waste stream.

Hazardous substance (30 TAC Section 335.508)—Any substance designated as “hazardous” in 40 CFR Part 302 (Table 302.4) including, but not limited to, waste designated as hazardous in the Resource Conservation Recovery Act (RCRA).

Hazardous waste (40 CFR 261.3.)—The EPA defines a waste as hazardous if it exhibits one or more of four hazardous “characteristics,” or if it is one of several hundred wastes “listed” as hazardous. For details, see Chapters 1 and 3 of this guidance document.

Hazardous waste determination (30 TAC Section 335.504)—An evaluation of a waste to determine whether it meets the RCRA definition of a hazardous waste.

Inert (30 TAC Section 335.507)—Inertness refers to the chemical inactivity of an element, compound, or waste. Ingredients added to mixtures chiefly for the purposes of bulk and/or weight are normally considered inert.

Listed hazardous wastes (40 CFR Part 261 Subpart D)—Specific wastes that have been identified by the EPA as hazardous. These are often referred to as the “F” wastes (waste from nonspecific sources); “K” wastes (wastes from specific sources); “P” wastes (acutely hazardous off-specification materials, container residues, and spill residues of these materials); and “U” wastes (toxic, hazardous off-specification materials, container residues, and spill residues).

A waste is considered hazardous if

- it is listed in 40 CFR Part 261 Subpart D, or
- is mixed with or derived from a waste listed there, and
- has not been provided a particular exclusion from the definition of hazardous as provided in 40 CFR Sections 261.3–4.

Matrix interference—Interference with the precision of analytical testing for a particular constituent in a waste stream due to other material(s) in the sample (contamination by carryover). See also waste matrices.

Medical wastes (30 TAC Section 335.508)—Nonhazardous medical wastes that are subject to the provisions of 30 TAC Chapter 330 Subchapter Y are designated as Class 2 wastes. An example of such waste would be needle-bearing syringes from plant infirmaries.

“New chemical substance” waste (30 TAC Section 335.508)—If a nonhazardous industrial waste is generated as a result of the commercial production of a “new chemical substance” as defined by the federal Toxic Substances Control Act, *United States Code Annotated* (U.S.C.A.), Title 15, Section 2602(9), the generator must manage that waste as a Class 1 waste, unless the generator can provide appropriate analytical data and/or process knowledge demonstrating that the waste is Class 2 or Class 3, and the TCEQ concurs. If the generator has not re-

ceived concurrence or denial from the TCEQ within 120 days from the date of the request for review, the generator may manage the waste according to the requested classification, but not before giving 10 working days written notice to the TCEQ.

Notice of Registration (NOR)—TCEQ term for the information it collects in its database on each hazardous or industrial waste handler: generator, receiver, transporter, and recycler. The NOR includes the facility’s physical and mailing addresses, information on waste streams that are generated or handled at the site, a list of individual units at the facility where wastes are managed, and other information. It also contains the state facility identification numbers and the EPA facility number, issued by the TCEQ. The NOR serves to verify the information submitted by each handler. When a generator registers with the TCEQ using form TCEQ-00002, the agency sends back a printout of the information in its database about the site and generator. The handler should keep the NOR current and in on-site files and check it periodically to make sure that it accurately reflects the facility’s waste streams and waste management units.

Petroleum-hydrocarbon-containing wastes (30 TAC Section 335.508)—Wastes resulting from the cleanup of leaking underground storage tanks (USTs), which are regulated under 30 TAC Chapter 334 Subchapter K (relating to Petroleum Substance Waste), are not subject to classification under 30 TAC Chapter 335 Subchapter R (Waste Classification).

Petroleum substance—A crude oil, or any refined or unrefined fraction or derivative of crude oil, that is a liquid at standard conditions of temperature and pressure. These substances include the following:

- combinations or mixtures of basic petroleum substances, such as crude oils, crude oil fractions, petroleum feedstocks, and petroleum fractions;
- aviation gasolines, aviation jet fuels, distillate fuel oils, residual fuel oils, gas turbine fuel oils, illuminating oils, lubricants, building materials, insulating and waterproofing materials, used oils;
- solvents or a combination or mixture of solvents—except for any listed substance regulated as a hazardous waste under the federal Solid Waste Disposal Act, Subtitle C (*United States Code*, Title 42, Section 6921, et seq.)—that are liquid at standard conditions of temperature (20° centigrade) and pressure (1 atmosphere). Examples include Stoddard

solvent, petroleum spirits, mineral spirits, petroleum ether, varnish makers' and painters' naphthas, petroleum extender oils, and commercial hexane.

The following materials are **not** considered petroleum substances:

- polymerized materials, such as plastics, synthetic rubber, polystyrene, high- and low- density polyethylene;
- animal, microbial, and vegetable fats;
- food-grade oils;
- hardened asphalt and solid asphaltic materials, such as roofing shingles, roofing felt, hot mix and cold mix; and
- cosmetics.

Practical Quantitation Limits (PQLs)—See quantitation.

Process Knowledge—See examples in Chapter 4 under this subheading.

Quantitation—Generally, measurement of quantity or amounts. The word appears in a number of specialized terms used in waste regulation:

- **Quantitation Limits (QLs)** indicate the levels at which measurements can be “trusted.”
- **Practical Quantitation Limits (PQLs)** and **Estimated Quantitation Limits (EQLs)** are levels that are routinely and reliably detected and quantitated in a variety of sample matrices. These are 3 to 5 times the Method Detection Limits (MDLs). (See Chapter 1, SW 846, 1992.)
- **Method Detection Limits (MDLs)** take into account the reagents, sample matrix, and preparation steps applied to a sample in specific analytical methods. (See 40 CFR Part 136, Appendix B; Chapter 1, SW 846, July 1992.)

RCRA—Resource Conservation and Recovery Act (amendment to the Solid Waste Disposal Act). Primarily designed to regulate five types of disposal activities: hazardous waste, solid waste, underground storage tanks, oil waste, and medical waste. In this guidance document, any mention of “RCRA” refers to RCRA Subtitle C, which applies to all handlers of hazardous waste, including generators; transporters; and operators of treatment, storage, and disposal (TSDF) facilities. (RCRA, a federal law, covers only whether a solid waste is either hazard-

ous or nonhazardous. Texas regulations further subdivide nonhazardous waste into Classes 1, 2, and 3.)

Regulated asbestos-containing material (RACM) (30 TAC Sections 335.508)—RACM includes the following:

- **friable** asbestos containing more than 1 percent asbestos¹ that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure;
- **nonfriable** asbestos-containing material containing more than 1 percent asbestos as measured by the method found in 40 CFR Part 763, Subpart E, Appendix E, Section 1 that, when dry, *cannot* be crumbled, pulverized, or reduced to powder by hand pressure.
- **Category I** nonfriable asbestos includes packings, gaskets, resilient floor coverings, and asphalt roofing products);
- **Category II** nonfriable asbestos includes transite shingles, transite pipes, and any nonfriable asbestos material not defined as Category I.

Regulated generators (30 TAC Chapter 335 Subchapters A and C)—If you generate the following amounts of waste, you are a regulated generator and must follow regulations in Chapter 335:

Waste Type	Monthly Amount
Class 1	100 kg (220 lbs) or more
hazardous	100 kg (220 lbs) or more
acutely hazardous	1 kg (2.2 lbs) or more

If you generate less than the amounts shown above, you are considered a Conditionally Exempt Small-Quantity Generator and are not subject to regulations requiring notification, manifesting, and fees.

Sequence number (30 TAC Section 335.503)—The first 4 digits of the waste code (actually these four characters may be numbers, letters, or a combination of the two). The sequence number is used as an internal numbering system determined by each generator. The number of a waste may range from 0001 to 9999, and can only be used once.

Solid waste (30 TAC Section 335.1 and 40 CFR Section 261.2)—Any discarded material such as garbage; refuse; sludge from a waste treatment plant,

¹As determined using the method specified in 40 CFR Part 763, Subpart E, Appendix E, Section 1, Polarized Light Microscopy.

water supply treatment plant, or air pollution control facility; or other material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, municipal, commercial, mining, and agricultural operations. Solid wastes include any material that is abandoned by being disposed of; burned or incinerated; or accumulated, stored, or treated before or in lieu of these activities. Certain recycled materials are also considered wastes. Solid wastes are often referred to simply as “wastes.” For the complete definition of a “solid waste,” please refer to 30 TAC Section 335.1 (Solid Waste).

Specific industrial solid waste (30 TAC Section 335.508)—A nonhazardous waste for which specific classification criteria and/or a form code have been established.

Stabilized wastes (30 TAC Section 335.508)—Wastes that originally exhibit hazardous characteristics can be *stabilized* so that they are no longer hazardous and can meet the criteria for classification as Class 1 or 2 nonhazardous industrial waste. For example a waste containing lead that exhibits the hazardous characteristic of toxicity can be stabilized by mixing with cement in the proper proportion to reduce the toxicity or mobility of contaminants. Depending on the process(es) used, stabilization achieves varying degrees of long-term effectiveness.

Synthetic oils—Oils not derived from crude oil, including those derived from shale, coal, or a polymer-based starting material; and nonpolymeric synthetic fluids that are used as hydraulic fluids and heat transfer fluids, such as those based on phosphate esters, diphenyl oxide, or alkylated benzenes. Synthetic oils are generally used for the same purpose as oils, and they present relatively the same level of hazardousness after use.

TAC—Texas Administrative Code. Title 30 of TAC contains TCEQ rules on industrial solid waste and municipal hazardous waste, among other subjects.

TSDF—Treatment, storage, and disposal facilities.

Universal Waste (30 TAC Section 335.261 and 40 CFR Part 273)—This rule covers five types of waste:

- all hazardous waste batteries as described in 40 CFR 273.2;

- mercury-containing thermostats as described in 40 CFR 273.4;
- some hazardous waste pesticides as described in 40 CFR 273.3;
- paint and paint-related waste as described in §335.262(b);
- lamps as described in 40 CFR §273.5, and §335.261(b)(16)(F).

The rule establishes a reduced set of regulatory requirements for facilities managing universal waste, depending on whether the facility falls into one of four categories:

- small-quantity handler of universal waste (SQHUW),
- large-quantity handler of universal waste (LQHUW),
- transporter of universal waste, or
- final destination facilities.

In addition, the rules establish a petitioning procedure whereby additional wastes may be added to the universal waste rule.

U.S.C.A.—*United States Code Annotated*.

Used oil (30 TAC Section 335.1, 30 TAC Section 324 (relating to used oil), and 40 CFR Part 279 (relating to standards for management of used oil)²—Any oil refined from crude oil, or any synthetic oil, that has been used and, from such use, is contaminated by physical or chemical impurities and cannot be used for its intended purpose (that is, it is a spent material).

Used oil fuel includes any fuel produced from used oil by processing, blending, or other treatment.

Waste—Unwanted materials left over from a manufacturing process; refuse from places of human or animal habitation.

Waste code—Also referred to as Texas waste code (30 TAC Section 335.503)—This 8-digit code identifies a waste stream. The first 4 digits are the *sequence number*, the next 3 digits are the *form code*, and the last digit is the waste’s *classification* (sequence number + form code + classification code = waste code). (Some of the “digits” referred to here actually may be letters or a combination of letters and numbers.)

Waste matrices—Water and soil or sediment in which a waste is found.

²Rules applicable to nonhazardous used oil, are found in Chapter 324, state regulations on recyclable used oil, and 40 CFR Part 279, federal regulations on used oil recycling.

Wastes generated out-of-state (30 TAC Section 335.508)—All nonhazardous industrial waste generated outside the state of Texas and transported into or through Texas for processing, storage, or disposal is classified as Class 1 unless the waste satisfies the Class 2 or 3 criteria as defined in 30 TAC Sections 335.506–8. A Class 2 or 3 waste determination, accompanied by all supporting process knowledge and analytical data, must be submitted to the TCEQ for approval.

Waste stream (30 TAC Section 335.503)—The total flow of solid waste from homes, businesses, institutions, and manufacturing plants that is recycled, burned, or disposed of in landfills; or segments of that total flow, such as the “residential waste stream” or the “recyclable waste stream.” (It should be noted that the terms “waste stream”, “solid waste”, and “waste” are often used interchangeably by federal and state regulators as well as many members of the regulated community).

Hazardous Substances

Applicability: Empty Container Class 2 Evaluations

The following is a listing of materials identified as hazardous substances (40 CFR Table 302.4) in effect at the time of this guideline's printing. (As amended at 57 FR 61492, Dec. 24, 1992; 58 FR 35314, June 30, 1993; 59 FR 31551, June 20, 1994; 60 FR 7824 Feb. 9, 1995). CAS numbers of the materials are also provided.

Hazardous Substance	CAS Number	Hazardous Substance	CAS Number
Acenaphthene	83329	Ammonium chloride	12125029
Acenaphthylene	208968	Ammonium chromate	7788989
Acetaldehyde	75070	Ammonium citrate, dibasic	3012655
Acetaldehyde, chloro-	107200	Ammonium fluoborate	13826830
Acetaldehyde, trichloro-	75876	Ammonium fluoride	12125018
Acetamide, N-(aminothioxomethyl)-	591082	Ammonium hydroxide	1336216
Acetamide, N-9H-fluoren-2-yl-	53963	Ammonium oxalate	6009707
Acetic acid	64197	Ammonium picrate	131748
Acetic acid (2,4-dichlorophenoxy)-	94757	Ammonium silicofluoride	16919190
Acetic anhydride	108247	Ammonium sulfamate	7773060
Acetone	67641	Ammonium sulfide	12135761
Acetone cyanohydrin	75865	Ammonium sulfite	10196040
Acetonitrile	75058	Ammonium tartrate	14307438
Acetophenone	98862	Ammonium thiocyanate	1762954
2-Acetylaminofluorene	53963	Ammonium vanadate	7803556
Acetyl bromide	506967	Amyl acetate	628637
Acetyl chloride	75365	iso-	123922
1-Acetyl-2-thiourea	591082	sec-	626380
Acrolein	107028	tert-	625161
Acrylamide	79061	Aniline	62533
Acrylic acid	79107	Anthracene	120127
Acrylonitrile	107131	Antimony	7440360
Adipic acid	124049	Antimony pentachloride	7647189
Aldicarb	116063	Antimony potassium tartrate	28300745
Aldicarb sulfone	1646884	Antimony tribromide	7789619
Aldrin	309002	Antimony trichloride	10025919
Allyl alcohol	107186	Antimony trifluoride	7783564
Allyl chloride	107051	Antimony trioxide	1309644
Aluminum phosphide	20859738	Aroclor 1016	12674112
Aluminum sulfate	10043013	Aroclor 1221	11104282
Ametycin	50077	Aroclor 1232	11141165
(7-amino-9-a-methoxymitosane)		Aroclor 1242	53469219
5-(Aminomethyl)-3-isoxazolol	2763964	Aroclor 1248	12672296
4-Aminopyridine	504245	Aroclor 1254	11097691
Amitrole	61825	Aroclor 1260	11096825
Ammonia	7664417	Arsenic	7440382
Ammonium acetate	631618	Arsenic acid H_3AsO_4	1327522
Ammonium benzoate	1863634	Arsenic disulfide	1303328
Ammonium bicarbonate	1066337	Arsenic pentoxide, As_2O_5	1303282
Ammonium bichromate	7789095	Arsenic trichloride	7784341
Ammonium bifluoride	1341497	Arsenic trioxide, As_2O_3	1327533
Ammonium bisulfite	10192300	Arsenic trisulfide	1303339
Ammonium carbamate	1111780	Arsinic acid, dimethyl-	75605
Ammonium carbonate	506876	Asbestos	1332214
		Auramine	492808

Appendix A—Hazardous Substances

Hazardous Substance	CAS Number	Hazardous Substance	CAS Number
Azaserine	115026	Butyl acetate	123864
1H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester	2212671	iso-	110190
Aziridine, 2-methyl	75558	sec-	105464
Barium cyanide	542621	tert-	540885
Benz[c]acridine	225514	n-Butyl alcohol	71363
Benzanthracene	56553	Butylamine	109739
Benz[a]anthracene	57976	iso-	78819
Benzene	71432	sec-	513495
Benzene, dichloromethyl-	98873	sec-	13952846
Benzene, 2,6-diisocyanato-1-methyl-	91087	tert-	75649
Benzene, m-dimethyl	108383	Butyl benzyl phthalate	85687
Benzene, o-dimethyl	95476	Butyric acid	107926
Benzene, p-dimethyl	106423	iso-Butyric acid	79312
Benzenesulfonic acid chloride	98099	Cadmium	7440439
Benzene, (trichloromethyl)	98077	Cadmium acetate	543908
Benzydine	92875	Cadmium bromide	7789426
Benzo[a]anthracene	56553	Cadmium chloride	10108642
1,3-Benzodioxol-4-ol, 2,2-dimethyl-, (Bendiocarb phenol)	22961826	Calcium arsenate	7778441
1,3-Benzodioxol-4-ol, 2,2- dimethyl-, methyl carbamate (Bendiocarb)	22781233	Calcium arsenite	52740166
Benzo[b]fluoranthene	205992	Calcium carbide	75207
Benzo(k)fluoranthene	207089	Calcium chromate	13765190
Benzoic acid	65850	Calcium cyanide Ca(CN) ₂	592018
Benzoic acid, 2-hydroxy-, compound with (3aS-cis)-1,2,3,3a,8,8a- hexahydro-1,3a,8-trimethylpyrrolo- [2,3-b]indol- 5-yl methylcarbamate ester (1:1) (Physostigmine salicylate)	57647	Calcium dodecylbenzenesulfonate	26264062
Benzonitrile	100470	Calcium hypochlorite	7778543
Benzo[rs]pentaphene	189559	Captan	133062
Benzo[ghi]perylene	191242	Carbamic acid, butyl-, 3-iodo-2-n-butylcarbamate)	55406536
Benzo[a]pyrene	50328	Carbamic acid, [1- [(butylamino)carbonyl]- 1H-benzimidazol-2-yl, methyl ester (Benomyl)	17804352
p-Benzoquinone	106514	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	10605217
Benzotrichloride	98077	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester	101279
Benzoyl chloride	98884	Carbamic acid, dimethyl-,1- [(dimethylamino)carbonyl]-5- methyl-1H-pyrazol-3-yl ester	644644
Benzyl chloride	100447	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)- 1H-pyrazol-5-yl ester	119380
Beryllium chloride	7787475	Carbamic acid, methyl-, 3-methylphenyl ester	1129415
Beryllium powder	7440417	Carbamic acid, [1,2-phenylenebis- (iminocarbonothioyl)]bis-, dimethyl ester	23564058
Beryllium fluoride	7787497	Carbamic acid, phenyl-, 1-methylethyl ester (Propham)	122429
Beryllium nitrate	13597994	Carbamic acid, methylnitroso-, ethyl ester	615532
alpha-BHC	319846	Carbamic chloride, dimethyl-	79447
beta-BHC	319857	Carbamodithioic acid, dibutyl-, sodium salt	136301
delta-BHC	319868	Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester	95067
2,2'-Bioxirane	1464535	Carbamodithioic acid, diethyl-, sodium salt	148185
Bis(2-chloroethyl) ether	111444	Carbamodithioic acid, dimethyl-, potassium salt	128030
Bis(2-chloroethoxy)methane	111911		
Bis(dimethylthiocarbamoyl) sulfide	97745		
Bis(2-ethylhexyl) phthalate	117817		
Bromoacetone	598312		
Bromoform	75252		
4-Bromophenyl phenyl ether	101553		
Brucine	357573		
1-Butanol	71363		
2-Butenal	123739		

Appendix A—Hazardous Substances

Hazardous Substance	CAS Number	Hazardous Substance	CAS Number
Carbamodithioic acid, dimethyl-, sodium salt	128041	Chrysene	218019
Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid	144343	Cobaltous bromide	7789437
Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt	51026289	Cobaltous formate	544183
Carbamodithioic acid, methyl-, monopotassium salt	137417	Cobaltous sulfamate	14017415
Carbamodithioic acid, methyl-, monosodium salt	137428	Copper	7440508
Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	2303175	Copper, dimethyldithiocarbamate	137291
Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester	2008415	Copper cyanide CuCN	544923
Carbamothioic acid, butylethyl-, S-propyl ester	1114712	Coumaphos	56724
Carbamothioic acid, cyclohexylethyl-, S-ethyl ester	1134232	Creosote	8001589
Carbamothioic acid, dipropyl-, S-ethyl ester (EPTC)	759944	Cresol(s)	1319773
Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	52888809	m-Cresol	108394
Carbamothioic acid, dipropyl-, S-propyl ester	1929777	o-Cresol	95487
Carbaryl	63252	p-Cresol	106445
Carbofuran	1563662	Cumene	98828
Carbofuran, phenol	1563388	Cupric acetate	142712
Carbosulfan	55285148	Cupric acetoarsenite	12002038
Carbon disulfide	75150	Cupric chloride	7447394
Carbon oxyfluoride	353504	Cupric nitrate	3251238
Carbon tetrachloride	56235	Cupric oxalate	5893663
Chlorambucil	305033	Cupric sulfate	7758987
Chlordane	57749	Cupric sulfate, ammoniated	10380297
Chlorine	7782505	Cupric tartrate	815827
Chlornaphazine	494031	Cyanides	57125
p-Chloroaniline	106478	Cyanogen	460195
Chlorobenzene	108907	Cyanogen bromide (CN)Br	506683
Chlorobenzilate	510156	Cyanogen chloride	506774
p-Chloro-m-cresol	59507	Cyclohexane	110827
Chlorodibromomethane	124481	Cyclohexanone	108941
Chloroethane	75003	2-Cyclohexyl-4,6-dinitrophenol	131895
2-Chloroethyl vinyl ether	110758	Cyclophosphamide	50180
Chloroform	67663	2,4-D Acid	94757
Chloromethyl methyl ether	107302	2,4-D (isopropyl) Esters	94111
2-Chloronaphthalene	91587		94791
2-Chlorophenol	95578		94804
4-Chlorophenyl phenyl ether	7005723		1320189
3-Chloropropionitrile	542767		1928387
Chlorosulfonic acid	7790945		1928616
4-Chloro-o-toluidine, hydrochloride	3165933	Butoxyethyl	1929733
Chlorpyrifos	2921882		2971382
Chromic acetate	1066304	Isooctyl	25168267
Chromic acid	11115745	Dichlorophenoxyaceticacid-polyoxybutyl	53467111
Chromic sulfate	10101538	Daunomycin	20830813
Chromium	7440473	DDD	72548
Chromous chloride	10049055	DDE	72559
		DDT	50293
		Diallate	2303164
		Diazinon	333415
		Dibenzo[a,h]anthracene	53703
		1,2-Dibromo-3-chloropropane	96128
		Dibutylnitrosoamine	924163
		Di-n-butyl phthalate	84742
		Dicamba	1918009
		Dichlobenil	1194656
		Dichlone	117806
		Dichlorobenzene	25321226
		1,2-Dichlorobenzene	95501
		1,3-Dichlorobenzene	541731
		1,4-Dichlorobenzene	106467
		3,3'-Dichlorobenzidine	91941

Appendix A—Hazardous Substances

Hazardous Substance	CAS Number	Hazardous Substance	CAS Number
Dichlorobromomethane	75274	2,4-Dinitrotoluene	121142
1,4-Dichloro-2-butene	764410	2,6-Dinitrotoluene	606202
Dichlorodifluoromethane	75718	Dinoseb	88857
1,1-Dichloroethane	75343	Di-n-octyl phthalate	117840
1,2-Dichloroethane	107062	1,2-Diphenylhydrazine	122667
1,1-Dichloroethylene	75354	Diphosphoramidate, octamethyl-	152169
1,2-Dichloroethylene	156605	Diphosphoric acid, tetraethyl ester	107493
Dichloroethyl ether	111444	Dipropylamine	142847
Dichloroisopropyl	108601	Di-n-propylnitrosamine	621647
Dichloromethoxyethane	111911	Diquat	85007
Dichloromethyl ether	542881	Disulfoton	298044
2,4-Dichlorophenol	120832	Dithiobiuret	541537
2,6-Dichlorophenol	87650	1,3-Dithiolane-2-	26419738
Dichlorophenylarsine	696286	carboxaldehyde, 2,4-dimethyl-, O-[(methylamino) carbonyl]oxime (Tirpate)	
Dichloropropane	26638197	Diuron	330541
1,1-Dichloropropane	78999	Dodecylbenzenesulfonic acid	27176870
1,3-Dichloropropane	142289	Endosulfan	115297
1,2-Dichloropropane	78875	alpha-Endosulfan	959988
Dichloropropane	8003198	beta-Endosulfan	33213659
Dichloropropene	26952238	Endosulfan sulfate	1031078
2,3-Dichloropropene	78886	Endothall	145733
1,3-Dichloropropene	542756	Endrin & metabolites	72208
2,2-Dichloropropionic acid	75990	Endrin aldehyde	7421934
Dichlorvos	62737	Epichlorohydrin	106898
Dicofol	115322	Epinephrine	51434
Dieldrin	60571	Ethanimidodithioic acid, 2-	30558431
Diethylamine	109897	(dimethylamino-N-hydroxy-2-oxo-, methyl ester (A2213)	
Diethylarsine	692422	Ethanimidodithioic acid, 2-	23135220
1,4-Diethylenedioxiide	123911	(dimethylamino)-N-[[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester (Oxamyl)	
O,O-Diethyl S-methyl dithiophosphate	3288582	Ethanimidodithioic acid, N,N'-	59669260
Diethyl-p-nitrophenyl phosphate	311455	[thiobis[(methylimino) carbonyloxy]] bis-, dimethyl ester (Thiodicarb)	
Diethyl-o-phthalate	84662	Ethanol, 2,2'-oxybis-, dicarbamate (Diethylene glycol, dicarbamate)	5952261
O,O-Diethyl O-pyrazinyl phosphorothioate	297972	Ethion	563122
Diethylstilbestrol	56531	Ethyl acetate	141786
Dihydrosafrole	94586	Ethyl acrylate	140885
Diisopropylfluorophosphate	55914	Ethylbenzene	100414
3,3'-Dimethoxybenzidine	119904	Ethyl carbamate	51796
Dimethylamine	124403	Ethyl cyanide	107120
p-Dimethylamino-azobenzene	60117	Ethylenebisdithiocarbamic acid, salts & esters	111546
3,3'-Dimethylbenzidine	119937	Ethylenediamine	107153
1,1-Dimethylhydrazine	57147	Ethylenediamine-	60004
1,2-Dimethylhydrazine	540738	tetraacetic acid (EDTA)	
alpha,alpha-	122098	Ethylene dibromide	106934
Dimethylphenethylamine		Ethylene glycol	110805
2,4-Dimethylphenol	105679	monoethyl ether	
Dimethyl phthalate	131113	Ethylene oxide	75218
Dimethyl sulfate	77781	Ethylenethiourea	96457
Dinitrobenzene (mixed)	25154545	Ethylenimine	151564
m-Dinitrobenzene	99650		
o-Dinitrobenzene	528290		
p-Dinitrobenzene	100254		
4,6-Dinitro-o-cresol and salts	534521		
Dinitrophenol	25550587		
2,5-Dinitrophenol	329715		
2,6-Dinitrophenol	573568		
2,4-Dinitrophenol	51285		
Dinitrotoluene	25321146		
3,4-Dinitrotoluene	610399		

Appendix A—Hazardous Substances

Hazardous Substance	CAS Number	Hazardous Substance	CAS Number
Ethyl ether	60297	Lead acetate	301042
Ethyl methacrylate	97632	Lead arsenate	7784409
Famphur	52857	Lead chloride	7758954
Ferric ammonium citrate	1185575	Lead fluoborate	13814965
Ferric ammonium oxalate	2944674	Lead fluoride	7783462
Ferric chloride	7705080	Lead iodide	10101630
Ferric fluoride	7783508	Lead nitrate	10099748
Ferric nitrate	10421484	Lead phosphate	7446277
Ferric sulfate	10028225	Lead stearate	7428480
Ferrous ammonium sulfate	10045893	Lead subacetate	1335326
Ferrous chloride	7758943	Lead sulfate	15739807
Ferrous sulfate	7720787	Lead sulfide	1314870
Fluoranthene	206440	Lead thiocyanate	592870
Fluorene	86737	Lithium chromate	14307358
Fluorine	7782414	Malathion	121755
Fluoroacetamide	640197	Maleic acid	110167
Fluoroacetic acid, sodium salt	62748	Maleic anhydride	108316
Formaldehyde	50000	Maleic hydrazide	123331
Formic acid	64186	Manganese dimethyldithiocarbamate	15339363
Fumaric acid	110178	Melphalan	148823
Furan	110009	Mercaptodimethur	2032657
Furfural	98011	Mercuric cyanide	592041
Glauramine	492808	Mercuric nitrate	10045940
Glycidylaldehyde	765344	Mercuric sulfate	7783359
Guanidine, N-methyl-N'-nitro-N-nitroso-	70257	Mercuric thiocyanate	592858
Guthion	86500	Mercurous nitrate	10415755
Heptachlor	76448	Mercury	7439976
Heptachlor epoxide	1024573	Mercury fulminate	628864
Hexachlorobenzene	118741	Methacrylonitrile	126987
Hexachlorobutadiene	87683	Methanesulfonic acid, ethyl ester	62500
Hexachlorocyclohexane (all isomers)	608731	Methanimidamide,	23422539
Hexachlorocyclohexane	58899	N,N-dimethyl-N'-	
(gamma isomer - Lindane)		[3-[(methylamino)carbonyl]	
Hexachlorocyclopentadiene	77474	oxylphenyl]-, monohydrochloride	
Hexachloroethane	67721	Methanimidamide,	17702577
Hexachlorophene	70304	N,N-dimethyl-N'-	
Hexachloropropene	1888717	[2-methyl-4-[(methylamino)	
Hexaethyl tetraphosphate	757584	carbonyl]oxy]phenyl]-	
Hydrazine	302012	Methanol	67561
Hydrazine, 1,2-diethyl-	1615801	Methapyrilene	91805
Hydrochloric acid	7647010	Methomyl	16752775
Hydrocyanic acid	74908	Methoxychlor	72435
Hydrofluoric acid	7664393	Methyl bromide	74839
Hydrogen sulfide H ₂ S	7783064	1-Methylbutadiene	504609
Hydroperoxide, 1-methyl-1-phenylethyl	80159	Methyl chloride	74873
Indeno(1,2,3-cd)pyrene	193395	Methyl chlorocarbonate	79221
Iron, tris	14484641	3-Methylcholanthrene	56495
(dimethylcarbamodithioato-S,S')-		4,4'-Methylene(bis)chloroaniline	101144
Isobutyl alcohol	78831	Methylene bromide	74953
Isodrin	465736	Methylene chloride	75092
Isophorone	78591	Methyl ethyl ketone (MEK)	78933
Isoprene	78795	Methyl ethyl ketone peroxide	1338234
Isopropanolamine	42504461	Methyl hydrazine	60344
dodecylbenzenesulfonate		Methyl iodide	74884
Isosafrole	120581	Methyl isobutyl ketone	108101
3(2H)-Isoxazolone, 5-(aminomethyl)-	2763964	Methyl isocyanate	624839
Kepone	143500	Methylmercaptan	74931
Lasiocarpine	303344	Methyl methacrylate	80626
Lead	7439921	Methyl parathion	298000

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Hazardous Substance	CAS Number	Hazardous Substance	CAS Number
Methylthiouracil	56042	Phenol, 3-methyl-5-	2631370
Mevinphos	7786347	(1-methylethyl)-, methyl	
Mexacarbate	315184	carbamate (Promecarb)	
Mitomycin C	50077	Phenylmercury acetate	62384
Monoethylamine	75047	Phenylthiourea	103855
Monomethylamine	74895	Phorate	298022
Naled	300765	Phosgene	75445
1-Naphthalenamine	134327	Phosphine	7803512
2-Naphthalenamine	91598	Phosphoric acid	7664382
Naphthalene	91203	Phosphorodithioic acid,	60515
1,4-Naphthalenedione	130154	O,O-dimethyl S-	
Naphthenic acid	1338245	[2(methylamino)-2-oxoethyl] ester	
alpha-Naphthylthiourea	86884	Phosphorus	7723140
Nickel	7440020	Phosphorus oxychloride	10025873
Nickel ammonium sulfate	15699180	Phosphorus pentasulfide	1314803
Nickel carbonyl	13463393	Phosphorus trichloride	7719122
Nickel chloride	7718549	Phthalic anhydride	85449
Nickel cyanide Ni(CN) ₂	557197	Piperidine, 1-nitroso-	100754
Nickel hydroxide	12054487	Piperidine, 1,1'-	120547
Nickel nitrate	14216752	(tetrathiodicarbonothioyl)bis-	
Nickel sulfate	7786814	(Bis(pentamethylene)thiuram	
Nicotine, & salts	54115	tetrasulfide)	
Nitric acid	7697372	Polychlorinated biphenyls (PCBs)	1336363
p-Nitroaniline	100016	Aroclor 1016	12674112
Nitrobenzene	98953	Aroclor 1221	11104282
Nitrogen dioxide NO ₂	10102440	Aroclor 1232	11141165
Nitrogen oxide NO	10102439	Aroclor 1242	53469219
Nitroglycerine	55630	Aroclor 1248	12672296
Nitrophenol (mixed)	25154556	Aroclor 1254	11097691
m-Nitrophenol	554847	Aroclor 1260	11096825
o-Nitrophenol	88755	Potassium arsenate	7784410
p-Nitrophenol	100027	Potassium arsenite	10124502
2-Nitropropane	79469	Potassium bichromate	7778509
N-Nitrosodiethanolamine	1116547	Potassium chromate	7789006
N-Nitrosodiethylamine	55185	Potassium cyanide KCN	151508
N-Nitrosodimethylamine	62759	Potassium hydroxide	1310583
N-Nitrosodiphenylamine	86306	Potassium permanganate	7722647
N-Nitrosopyrrolidine	930552	Potassium silver cyanide	506616
Nitrotoluene	1321126	Pronamide	23950585
m-Nitrotoluene	99081	1,3-Propane sultone	1120714
o-Nitrotoluene	88722	Propanedinitrile	109773
p-Nitrotoluene	99990	Propargite	2312358
5-Nitro-o-toluidine	99558	Propargyl alcohol	107197
Osmium tetroxide OsO ₄	20816120	Propionic acid	79094
Paraformaldehyde	30525894	Propionic anhydride	123626
Paraldehyde	123637	n-Propylamine	107108
Parathion	56382	Propylene oxide	75569
Pentachlorobenzene	608935	Pyrene	129000
Pentachloroethane	76017	Pyrethrins	121299
Pentachloronitrobenzene	82688	Pyridine	110861
Pentachlorophenol	87865	Pyridine, 2-methyl-	109068
Perchloroethylene	127184	Pyrrolo[2,3-b] indol-5-ol,	57476
Phenacetin	62442	1,2,3,3a,8,8a-hexahydro-1,3a,8-	
Phenanthrene	85018	trimethyl-, methylcarbamate	
Phenol	108952	(ester), (3aS-cis)-Physostigmine	
Phenol, 3-(1-methylethyl)-,	64006	Quinoline	91225
methyl carbamate (m-Cumenyl		Reserpine	50555
methylcarbamate)		Resorcinol	108463
		Saccharin and salts	81072

Appendix A—Hazardous Substances

Hazardous Substance	CAS Number	Hazardous Substance	CAS Number
Safrole	94597	Thallium(I) acetate	563688
Selenious acid	7783008	Thallium(I) carbonate	6533739
Selenium	7782492	Thallium chloride TlCl	7791120
Selenium dioxide	7446084	Thallium(I) nitrate	10102451
Selenium sulfide SeS ₂	7488564	Thallium oxide Tl ₂ O ₃	1314325
Selenourea	630104	Thallium selenite	12039520
Silver	7440224	Thallium(I) sulfate	7446186
Silver cyanide AgCN	506649	2H-1,3,5-Thiadiazine-2-thione, tetrahydro-3,5-dimethyl- (Dazomet)	533744
Silver nitrate	7761888	Thioacetamide	62555
Silvex (2,4,5-TP)	93721	Thiofanox	39196184
Sodium	7440235	Thioperoxydicarbonic diamide, tetraethyl (Tetrabutylthiuram disulfide)	1634022
Sodium arsenate	7631892	Thioperoxydicarbonic diamide, tetraethyl (Disulfiram)	97778
Sodium arsenite	7784465	Thiophenol	108985
Sodium azide	26628228	Thiosemicarbazide	79196
Sodium bichromate	10588019	Thiourea	62566
Sodium bifluoride	1333831	Thiourea, (2-chlorophenyl)-	5344821
Sodium bisulfite	7631905	Thiram	137268
Sodium chromate	7775113	Toluene	108883
Sodium cyanide NaCN	143339	Toluenediamine	95807
Sodium dodecyl- benzenesulfonate	25155300	Toluene diisocyanate	584849
Sodium fluoride	7681494	o-Toluidine	95534
Sodium hydrosulfide	16721805	p-Toluidine	106490
Sodium hydroxide	1310732	o-Toluidine hydrochloride	636215
Sodium hypochlorite	7681529	Toxaphene	8001352
Sodium methylate	124414	2,4,5-TP esters	32534955
Sodium nitrite	7632000	Trichlorfon	52686
Sodium phosphate, dibasic	7558794	1,2,4-Trichlorobenzene	120821
Sodium phosphate, tribasic	7601549	1,1,1-Trichloroethane	71556
Sodium selenite	10102188	1,1,2-Trichloroethane	79005
Streptozotocin	18883664	Trichloroethene (Trichloroethylene)	79016
Strontium chromate	7789062	Trichloromethanesulfonyl chloride	594423
Strychnine, & salts	57249	Trichloromonofluoromethane	75694
Styrene	100425	Trichlorophenol	25167822
Sulfur monochloride	12771083	2,3,4-Trichlorophenol	15950660
Sulfuric acid	7664939	2,3,5-Trichlorophenol	933788
2,4,5-T acid	93765	2,3,6-Trichlorophenol	933755
2,4,5-T amines	2008460	3,4,5-Trichlorophenol	609198
	1319728	2,4,5-Trichlorophenol	95954
	3813147	2,4,6-Trichlorophenol	88062
	6369966	Triethanolamine	27323417
	6369977	dodecylbenzenesulfonate	
2,4,5-T (n-butyl) esters	93798	Triethylamine	121448
	1928478	Trimethylamine	75503
	2545597	1,3,5-Trinitrobenzene	99354
Isooctyl	25168154	Tris(2,3-dibromopropyl)phosphate	126727
Methylpropyl	61792072	Trypan blue	72571
2,4,5-T salts	13560991	Uracil mustard	66751
1,2,4,5-Tetrachlorobenzene	95943	Uranyl acetate	541093
2,3,7,8-Tetrachloro- dibenzo-p-dioxin (TCDD)	1746016	Uranyl nitrate	10102064
1,1,1,2-Tetrachloroethane	630206	Urea, N-ethyl-N-nitroso-	759739
1,1,2,2-Tetrachloroethane	79345	Urea, N-methyl-N-nitroso-	684935
2,3,4,6-Tetrachlorophenol	58902	Vanadium pentoxide	1314621
Tetraethyllead	78002	Vanadyl sulfate	27774136
Tetraethyldithiopyrophosphate	3689245	Vinyl chloride	75014
Tetrahydrofuran	109999	Vinyl acetate	108054
Tetranitromethane	509148		
Thallium	7440280		

Appendix A—Hazardous Substances

Hazardous Substance	CAS Number	Hazardous Substance	CAS Number
Vinylamine, N-methyl-N-nitroso-	4549400	Zinc cyanide $\text{Zn}(\text{CN})_2$	557211
Warfarin, and salts, when present at concentrations greater than 0.3%	81812	Zinc fluoride	7783495
Xylene (mixed)	1330207	Zinc formate	557415
Xylenol	1300716	Zinc hydrosulfite	7779864
Zinc	7440666	Zinc nitrate	7779886
Zinc acetate	557346	Zinc phenolsulfonate	127822
Zinc ammonium chloride	52628258	Zinc phosphide Zn_3P_2	1314847
Zinc, bis(dimethyl carbomodithioato-S,S')- (Ziram)	137304	when present at concentrations greater than 10%	
Zinc, bis(diethylcarbamo dithioato-S,S')- (Ethyl Ziram)	14324551	Zinc silicofluoride	16871719
Zinc borate	1332076	Zinc sulfate	7733020
Zinc bromide	7699458	Zirconium nitrate	13746899
Zinc carbonate	3486359	Zirconium potassium fluoride	16923958
Zinc chloride	7646857	Zirconium sulfate	14644612
		Zirconium tetrachloride	10026116

Ignitable Solids

(30 TAC Chapter 335 Subchapter R Appendix 1 Table 2)

Constituents listed from Department of Transportation Regulations, 49 CFR Part 173 Subpart E, October 1, 1993. Note: The presence of a constituent on this table in a nonhazardous waste does not automatically identify that waste as a Class 1 ignitable waste. The constituents on this table are examples of materials which could be considered Class 1 ignitable waste. The physical characteristics of the waste will be the determining factor as to whether or not a waste is ignitable. Refer to 30 TAC §335.505(2) (relating to Class 1 Waste Determination) for the Class 1 ignitable criteria.

Compound or Material	Compound or Material
Aluminum, metallic, powder	Calcium silicide
Alkali metal amalgams	Camphor, synthetic
Alkali metal amides	Carbon, activated
Aluminum alkyl halides	Celluloid
Aluminum alkyl hydrides	Cerium
Aluminum alkyls	Cesium metal
Aluminum borohydrides	Chromic acid or chromic acid mixture, dry
Aluminum carbide	Cobalt naphthenates, powder
Aluminum ferrosilicon powder	Cobalt resinate
Aluminum hydride	Decaborane
Aluminum phosphide	2-Diazo-1-naphthol-4-sulphochloride
Aluminum resinate	2-Diazo-1-naphthol-5-sulphochloride
Aluminum silicon powder	2,5-Diethoxy-4-morpholinobenzene-
Ammonium picrate	diazonium zinc chloride
2,2'-Azodi(2,4-dimethyl-4-methoxyvaleronitrile)	Diethylzinc
2, 2'-Azodi(2,4-dimethylvaleronitrile)	4-Dimethylamino-6-(2-dimethylaminoethoxy)-
1, 1' Azodi(hexahydrobenzonitrile)	toluene-2-diazonium zinc chloride
2,2'-Azodi(2-methyl-butryronitrile)	Dimethylzinc
Azodiisobutyronitrile	Dinitrophenolates
Barium, metallic	Dinitroresorcinol
Barium alloys, pyrophoric	N,N'-Dinitroso-N,N'-dimethylterephthalamide
Barium azide	N,N'-Dinitrosopentamethylenetetramine
Benzene-1,3-disulfohydrazide	Diphenyloxide-4,4'-disulfohydrazide
Benzene sulfohydrazide	Dipicryl sulfide
4-(Benzyl(ethyl)amino)-3-ethoxy-	4-Dipropylaminobenzenediazonium zinc chloride
benzenediazonium zinc chloride	Ferrocium
4-(Benzyl(methyl)amino)-3-ethoxy-	Ferrosilicon
benzenediazonium zinc chloride	Ferrous metal
Borneol	Hafnium powder
Boron trifluoride dimethyl etherate	Hexamine
5-tert-Butyl-2,4,6-trinitro-m-xylene	Hydrides, metal
Calcium, metallic	3-(2-Hydroxyethoxy)-4-pyrrolidin-1-
Calcium carbide	ylbenzenediazonium zinc chloride
Calcium chlorite	Iron oxide, spent
Calcium cyanamide	Isosorbide dinitrate mixture
Calcium dithionite	Lead phosphite, dibasic
Calcium hypochlorite	Lithium acetylide-ethylene diamine complex
Calcium manganese silicon	Lithium alkyls
Calcium silicon powder	Lithium aluminum hydride
Calcium phosphide	Lithium amide, powdered
Calcium pyrophoric	Lithium borohydride
Calcium resinate	Lithium ferrosilicon

Appendix B—Ignitable Solids

Compound or Material	Compound or Material
Lithium hydride	Silicon powder, amorphous
Lithium metal	Silver picrate
Lithium nitride	Sodium, metallic
Lithium silicon	Sodium aluminum hydride
Magnesium granules	Sodium amide
Magnesium aluminum phosphide	Sodium borohydride
Magnesium diamide	Sodium chlorite
Magnesium phosphide	Sodium 2-diazo-1-naphthol-4-sulphonate
Magnesium silicide	Sodium 2-diazo-1-naphthol-5-sulphonate
Maneb	Sodium dichloro-s-triazinetriene
Manganese resinate	Sodium dinitro-ortho-cresolate
Methyl magnesium bromide	Sodium hydride
Methyldichlorosilane	Sodium hydrosulfite
Mono-(trichloro)tetra(monopotassium dichloro)- penta-s-triazinetriene	Sodium methylate
N-Methyl-N'-nitronitrosoguanidine	Sodium nitrite and mixtures
Naphthalene	Sodium picramate, wet
Nitrocellulose mixtures	Sodium potassium alloys
Nitroguanidine	Sodium sulfide, anhydrous
p-Nitrosodimethylaniline	Stannic phosphide
Paraformaldehyde	Strontium phosphide
Pentaborane	Sulfur
Peracetic acid	Titanium metal powder
Phosphorous, amorphous, red	Titanium hydride
Phosphorous, white or yellow	Trichloroisocyanuric acid
Phosphoric anhydride	Trichlorosilane
Phosphorous pentachloride	Trichloro-s-triazinetriene
Phosphorus pentasulfide	Trinitrobenzoic acid
Phosphorus sesquisulfide	Trinitrophenol
Phosphorus trisulfide	Trinitrotoluene
Picric acid	Urea nitrate
Potassium, metallic	Zinc ammonium nitrite
Potassium dichloro-s-triazinetriene	Zinc phosphide
Potassium borohydride	Zinc powder
Potassium dithionite	Zinc resinate
Potassium phosphide	Zirconium hydride, powdered
Potassium sulfide, anhydrous	Zirconium picramate
Rubidium metal	Zirconium powder
	Zirconium scrap

Class 1 Toxic Constituents' Maximum Leachable Concentrations

(30 TAC Chapter 335 Subchapter R Appendix 1 Table 1)

Applicability: Class 1, 2, and 3 Waste Evaluations

Values are based on information contained in Federal Registers Vol. 55 / Friday, July 27, 1990; Vol. 56 / June 7, 1991; and Integrated Risk Information Systems, Environmental Protection Agency, and 40 CFR 264 Appendix 9.

Compound	CAS No.	Concentration (mg/l)	Compound	CAS No.	Concentration (mg/l)
Acenaphthene	83-32-9	210	3,3-Dichlorobenzidine	91-94-1	0.8
Acetone	67-64-1	400	1,2-Dichloroethane	107-06-2	0.50
Acetonitrile	75-05-8	20	Dichlorodifluoromethane	75-71-8	700
Acetophenone	98-86-2	400	1,1-Dichloroethylene	75-35-4	0.6
Acrylamide	79-06-1	0.08	1,3-Dichloropropene	542-75-6	1
Acrylonitrile	107-13-1	0.6	2,4-Dichlorophenol	120-83-2	10
Aniline	62-53-3	60	2,4-Dichlorophenoxy-acetic acid (2,4-D)	94-75-7	10.0
Anthracene	120-12-7	1050	Dieldrin	60-57-1	0.02
Antimony	7440-36-0	1	Diethyl phthalate	84-66-2	3000
Arsenic	7440-38-2	1.8	Dimethoate	60-51-5	70
Barium	7440-39-3	100.0	2,4-Dimethyphenol	105-67-9	70
Benzene	71-43-2	0.50	2,6-Dimethyphenol	576-26-1	21
Benzidine	92-87-5	0.002	m-Dinitrobenzene	99-65-0	0.4
Beryllium	7440-41-7	0.08	2,4-Dinitrophenol	51-28-5	7
Bis(2-chloroethyl) ether	111-44-4	0.3	2,4-Dinitrotoluene (and 2,6-, mixture)	602-01-7	0.13
Bis(2-ethylhexyl) phthalate	117-81-7	30	Dinoseb	88-85-7	3.5
Bromodichloromethane	75-27-4	0.3	1,4-Dioxane	123-91-1	30
Bromomethane	74-83-9	5	Dioxins (Polychlorinated dibenzo-p-dioxins)		
Butylbenzyl phthalate	85-68-7	700	2,3,7,8-TCDD	1746-01-6	0.005
Cadmium	7440-43-9	0.5	1,2,3,7,8-PeCDD	40321-76-4	0.010
Carbon disulfide	75-15-0	400	1,2,3,4,7,8-HxCDD	57653-85-7	0.050
Carbon tetrachloride	56-23-5	0.50	1,2,3,6,7,8-HxCDD	34465-46-8	0.050
Chlordane	57-74-9	0.03	1,2,3,7,8,9-HxCDD		0.050
Chlorobenzene	108-90-7	70	Diphenylamine	122-39-4	90
Chloroform	67-66-3	6.0	1,2-Diphenylhydrazine	122-66-7	0.4
Chloro-m-cresol, p	59-50-7	7000	Disulfoton	298-04-4	0.1
2-Chlorophenol	95-57-8	20	Endosulfan	959-98-8	0.2
Chromium	7440-47-3	5.0	Endrin	72-20-8	.02
m-Cresol	108-39-4	200.0*	2-Ethoxyethanol	10-80-5	1400
o-Cresol	95-48-7	200.0*	Ethylbenzene	100-41-4	400
p-Cresol	106-44-5	200.0*	Ethylene dibromide	106-93-4	0.004
DDD	72-54-8	1	Ethylene glycol	107-21-1	7000
DDE	72-55-9	1	Fluoranthene	206-44-0	140
DDT	50-29-3	1	Fluorene	86-73-7	140
Dibutyl phthalate	84-74-2	400			
1,4-Dichlorobenzene	106-46-7	7.5			

*Appendix C — Class 1 Toxic Constituents’
Maximum Leachable Concentrations (MCLs)*

Compound	CAS No.	Concentration (mg/l)	Compound	CAS No.	Concentration (mg/l)
Furans (Polychlorinated dibenzofurans)			p-Phenylenediamine	106-50-3	20
2,3,7,8-TCDF	51207-31-9	0.050	Parathion	56-38-2	20
1,2,3,7,8-PeCDF		0.100	Pentachlorobenzene	608-93-5	3
2,3,4,7,8-PeCDF		0.010	Pentachloronitrobenzene	82-68-8	10
1,2,3,4,7,8-HxCDF		0.050	Pentachlorophenol	87-86-5	100.0
1,2,3,6,7,8-HxCDF		0.050	Phenol	108-95-2	2000
1,2,3,7,8,9-HxCDF		0.050	Pronamide	23950-58-5	300
Heptachlor	76-44-8	0.008	Pyrene	129-00-0	5.9
Heptachlor epoxide	1024-57-3	0.04	Pyridine	110-86-1	4
Hexachlorobenzene	118-74-1	0.13	Selenium	7782-49-2	1.0
Hexachloro-1,3-butadiene	87-68-3	0.4	Silver	7440-22-4	5.0
Hexachlorocyclopentadiene	77-47-4	20	Styrene	100-42-5	700
Hexachloroethane	67-72-1	3.0	1,1,1,2-Tetrachloroethane	630-20-6	10
Hexachlorophene	70-30-4	1	1,1,2,2-Tetrachloroethane	79-34-5	2
Isobutyl alcohol	78-83-1	1000	Tetrachloroethylene	127-18-4	0.7
Isophorone	78-59-1	90	2,3,4,6-Tetrachlorophenol	58-90-2	100
Lead	7439-92-1	1.5	Toluene	108-88-3	1000
Lindane	58-89-9	0.3	Toxaphene	8001-35-2	0.3
Mercury	7439-97-6	0.2	trans-1,3-Dichloropropene	542-75-6	1
Methacrylonitrile	126-98-7	0.4	Tribromomethane	75-25-2	70
Methomyl	16752-77-5	90	(Bromoform)		
Methoxychlor	72-43-5	10.0	1,2,4-Trichlorobenzene	120-82-1	70
2-Methoxyethanol	109-86-4	14.0	1,1,1-Trichloroethane	71-55-6	300
Methyl ethyl ketone	78-93-3	200.0	Trichloroethylene	79-01-6	0.5
Methyl isobutyl ketone	108-10-1	200	1,1,2-Trichloroethane	79-00-5	6
Methylene chloride	75-09-2	50	Trichlorofluoromethane	75-69-4	1000
Methyl parathion	298-00-0	0.9	2,4,5-Trichlorophenoxy-propionic acid	93-72-1	1.0
Mirex	2385-85-5	0.7	(2,4,5-TP or Silvex)		
Nickel	7440-02-0	70	1,2,3-Trichloropropane	96-18-4	20
Nitrobenzene	98-95-3	2.0	2,4,5-Trichlorophenol	95-95-4	400.0
N-Nitroso-di-n-butylamine	924-16-3	0.06	2,4,6-Trichlorophenol	88-06-2	2
N-Nitrosodiphenylamine	86-30-6	70	Vanadium pentoxide	1314-62-1	30
N-Nitrosomethylethylamine	10595-95-6	0.02	Vinyl chloride	75-01-4	0.2
N-Nitroso-n-propylamine	621-64-7	0.05	Xylenes (all isomers)	1330-82-1	7000
N-Nitrosopyrrolidine	930-55-2	0.2			

* If o-, m-, and p-cresol concentrations cannot be differentiated, the total cresol concentration is used.
The Maximum Concentration for total cresol is 200.0 mg/l.

7-Day Distilled Water Leachate Test's Maximum Contaminant Levels

(30 TAC Chapter 335 Subchapter R APPENDIX 1 Table 3)

Applicability: **Class 3 Waste Evaluations**

Values obtained from 40 Code of Federal Regulations Part 141, Subparts B and G, Maximum Contaminant Levels and 40 Code of Federal Regulations Part 143, Total Dissolved Solids.

Constituent	MCL (mg/l)
Arsenic	0.05
Barium	1
*Benzene	0.005
Cadmium	0.005
*Carbon tetrachloride	0.005
Chlordane	0.002
*Chlorobenzene	0.1
Chromium	0.1
2,4-D	0.07
*Dibromochloropropane	0.0002
*ortho-Dichlorobenzene	0.6
*para-Dichlorobenzene	0.075
*1,2-Dichloroethane	0.005
*1,1-Dichloroethylene	0.007
*trans-1,2-Dichloroethylene	0.1
*1,2-Dichloropropane	0.005
*Ethylbenzene	0.7
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Lead	0.05
Mercury	0.002
Methoxychlor	0.04
Pentachlorophenol	0.001
Selenium	0.05
Silver	0.05
*Styrene	0.1
*Tetrachloroethylene	0.005
*1,1,1-Trichloroethane	0.20
*Trichloroethylene	0.005
*Toluene	1
Toxaphene	0.003
2,4,5-TP (Silvex)	0.05
*Vinyl chloride	0.002
*Xylenes (total)	10
Total dissolved solids	500

* For a Class 3 waste classification, these constituents must also be evaluated using the test methods described in 40 Code of Federal Regulations, Part 261, Appendix II. See §335.507 (4) (A) (ii) for additional information.

Class 1 Toxic Constituents

(other than those identified in Appendix C, and their Estimated Quantitation Limits [EQLs])

Applicability: Class 3 Waste Evaluations

This table is to be utilized by the generator in evaluating detection limits for the identified constituents. The EQLs in this table are defined as the lowest detectable levels that can be reliably achieved using the Toxicity Characteristic Leaching Procedure (TCLP) at the time of the printing of this guideline. Applicable EPA method numbers are provided and can be found in EPA Report SW-846 "Test Methods for Evaluating Solid Waste" except where noted. Please note that more than one test method may be available for a particular constituent. Synonyms are provided in brackets "[]".

Constituent	EQL (mg/l)	Method(s)	Constituent	EQL (mg/l)	Method(s)
Acenaphthene	0.2	8100	Chloroform	0.0005	8010
	0.01	8270		0.005	8240
	0.02	8250	p-Chloro-m-cresol	0.005	8040
Acetone	0.1	8240		0.02	8270
Acetonitrile	0.1	8015	2-Chlorophenol	0.003	8040
[Methyl cyanide]	0.1	8030	[o-Chlorophenol]	0.01	8270
Acetophenone	0.001	8250	m-Cresol	0.01	8270
	0.01	8270	o-Cresol	0.01	8270
Acrylamide	0.005	8015	p-Cresol	0.01	8270
Acrylonitrile	0.005	8030	DDD [Dichlorodiphenyl-	0.0001	8080
[Vinyl cyanide]	0.005	8240	dichloroethane]	0.028	8250
Anthracene	0.2	8100		0.01	8270
	0.02	8250	DDE [Dichlorodiphenyl-	0.00004	8080
	0.01	8270	ethylene]	0.056	8250
Aniline	0.01	8250		0.01	8270
[Benzyl amine]	0.01	8270	DDT [Dichlorodiphenyl-	0.0001	8080
Antimony	0.2	204	trichloroethane]	0.047	8250
	0.3	6010		0.01	8270
	2.0	7040	Dibutyl phthalate	0.005	8060
	0.03	7041		0.01	8270
	2.0	7000A	1,4-Dichlorobenzene	0.004	8010
Benzidine [Dianiline]	0.44	8250		0.003	8020
Beryllium	**	210		0.013	8120
	0.003	6010		0.01	8270
	0.05	7090	3,3-Dichlorobenzidine	0.02	8270
	0.002	7091			
	0.05	7000A	Dichlorodifluoromethane	0.01	8010
Bis(2-chloroethyl) ether	0.057	8250		0.005	8240
[Dichloroethyl ether]	0.01	8270	1,3-Dichloropropene	0.003	8010
Bis(2-ethylhexyl)	0.02	8060		0.005	8240
phthalate	0.25	8250	2,4-Dichlorophenol	0.05	8040
	0.01	8270		0.01	8270
Bromodichloromethane	0.001	8010	Dieldrin	0.00002	8080
	0.005	8240		0.01	8270
Bromomethane	0.003	8010	Diethyl phthalate	0.005	8060
[Methylbromide]	0.01	8240		0.01	8270
Butylbenzyl phthalate	0.005	8060	Dimethoate	0.02	8270
[Benzylbutyl phthalate]	0.025	8250	2,4-Dimethylphenol	0.003	8040
	0.01	8270		0.01	8270
Carbon disulfide [CS ₂]	0.005	8240	2,6-Dimethylphenol	**	**

Appendix E—Class 1 Toxic Constituents

Constituent	EQL (mg/l)	Method(s)	Constituent	EQL (mg/l)	Method(s)
m-Dinitrobenzene	0.01	8270	2-Methoxyethanol	**	**
2,4-Dinitrophenol	0.13	8040	Methyl ethyl ketone [MEK]	0.01	8015
	0.05	8270		0.1	8240
2,4-Dinitrotoluene	0.0002	8090	Methyl isobutyl ketone [MIBK]	**	8015
(and 2,6-, mixture)	0.01	8270		0.005	8240
Dinoseb	0.007	8150	Methylene chloride	0.005	8010
	0.02	8270	[Dichloromethane]	0.005	8240
1,4-Dioxane	0.15	8015	Methyl parathion	0.0003	8140
Dioxins (Polychlorinated dibenzo-p-dioxins)				0.01	8270
2,3,7,8-TCDD	0.000005	8280	Mirex	**	**
1,2,3,7,8-PeCdd	0.00001	8280	Nickel	0.04	249
1,2,3,4,7,8-HxCDD	0.00001	8280		0.05	6010
1,2,3,6,7,8-HxCDD	0.00001	8280		0.4	7520
1,2,3,7,8,9-HxCDD	0.00001	8280		0.04	7000A
Diphenylamine	0.01	8270	Nitrobenzene	0.04	8090
1,2-Diphenylhydrazine	0.2	1625		0.01	8250
Disulfoton	0.002	8140		0.01	8270
	0.01	8270	N-Nitroso-di-n-butylamine	0.01	8270
Endosulfan	0.0001	8080	N-Nitrosodiphenylamine	0.01	8270
	0.056	8250	N-Nitrosomethylethylamine	0.02	8270
Endrin	0.00006	8080	N-Nitroso-n-propylamine	0.01	8270
	0.01	8250	N-Nitrosopyrrolidine	0.01	8270
2-Ethoxyethanol	**	**	p-Phenylenediamine	0.01	8270
Ethylene dibromide [EDB]	0.5	6231	Parathion	0.01	8270
(Standard Methods for Examination				0.0003	8140
of Water and Wastewater)			Pentachlorobenzene	0.02	8270
Ethylene glycol	**	**	Pentachloronitrobenzene	0.01	8270
Fluoranthene	0.2	8100	Phenol	0.001	8040
	0.01	8270		0.01	8270
Fluorene	0.2	8100	Pronamide	0.01	8270
	0.01	8270	Pyrene	0.2	8100
Furans (Polychlorinated dibenzofurans)				0.01	8270
2,3,7,8-TCDF	0.00001	8280	Pyridine	0.005	8240
1,2,3,7,8-PeCDF	0.00001	8280		0.01	8270
2,3,4,7,8-PeCDF	0.00001	8280	1,1,1,2-Tetrachloroethane	0.005	8010
1,2,3,4,7,8-HxCDF	0.00001	8280		0.005	8240
1,2,3,6,7,8-HxCDF	0.00001	8280	1,1,2,2-Tetrachloroethane	0.0003	8010
1,2,3,7,8,9-HxCDF	0.00001	8280		0.005	8240
Hexachlorobenzene	0.0005	8120	2,3,4,6-Tetrachlorophenol	0.01	8270
	0.0	8270	trans-1,3-Dichloropropene	0.0034	8010
Hexachloro-1,3-butadiene	0.0034	8120		0.005	8240
	0.01	8270	Tribromomethane [Bromoform]	0.002	8010
Hexachlorocyclopentadiene	0.004	8120		0.005	8240
	0.01	8270	1,2,4-Trichlorobenzene	0.01	8270
Hexachloroethane	0.0003	8120	1,1,2-Trichloroethane	0.0002	8010
	0.01	8270	[1,1,2-TCE]	0.005	8240
Hexachlorophene	0.05	8270	Trichlorofluoromethane	0.01	8010
Isobutyl alcohol	0.05	8015	[Freon 11]	0.005	8240
Isophorone	0.06	8090	1,2,3-Trichloropropane	0.01	8010
	0.01	8270		0.005	8240
Lindane	0.00004	8080	2,4,5-Trichlorophenol	0.01	8270
	0.01	8250	2,4,6-Trichlorophenol	0.006	8040
	0.00004	608		0.01	8270
	0.01	625	Vanadium pentoxide	0.2	286
Methacrylonitrile	0.005	8015		0.08	6010
Methomyl	0.09	632		2.0	7910
				0.04	7911

* If o-, m-, and p-cresol concentrations cannot be differentiated, the total cresol concentration is used.

** This information not available at time of publication.

7-Day Distilled Water Leachate Test Procedure

30 TAC Chapter 335 Subchapter R Appendix 4)

Applicability: **Class 3 Waste Evaluations**

This test is intended only for dry, solid wastes, i.e., waste materials without any free liquids.

1. Place a 250 gram (dry weight) representative sample of the waste material in a 1500 milliliter Erlenmeyer flask.
2. Add 1 liter of deionized or distilled water into the flask and mechanically stir the material at a low speed for five (5) minutes.
3. Stopper the flask and allow to stand for seven (7) days.
4. At the end of seven (7) days, filter the supernatant solution through a 0.45 micron filter, collecting the supernatant into a separate flask.
5. Subject the filtered leachate to the appropriate analysis.

Form Codes

(30 TAC Chapter 335 Subchapter R Appendix 3)

Applicability: **All Waste**

In determining a waste stream's form code, it is recommended that the generator first determine into which major category the waste stream fits (e.g. inorganic liquids). The generator should then review all the form code descriptors in that category to determine which code or codes best describe the generator's waste stream. The generator should then choose, from the narrowed-down list, a form code for the waste stream.

Form codes are fairly generic in their descriptions. It is possible that more than one form code may be applicable to a particular waste stream. Generators should assign the form code which best describes the waste stream. If more than one form code can "best describe" the waste stream, then the generator should choose one of those several codes.

Code	Waste Description	Code	Waste Description
Lab Packs			
Lab Packs — <i>Lab packs of mixed wastes, chemicals, lab wastes</i>		113	Other aqueous waste with high dissolved solids
001	Lab packs of old chemicals only	114	Other aqueous waste with low dissolved solids
002	Lab packs of debris only	115	Scrubber water
003	Mixed lab packs	116	Leachate
004	Lab packs containing acute hazardous wastes	117	Waste liquid mercury
009	Other lab packs (Specify in Comments)	119	Other inorganic liquids (Specify in Comments)
Liquids		198	Nonhazardous photographic chemical wastes (inorganic)
Inorganic Liquids — <i>Waste that is primarily inorganic and highly fluid (e.g., aqueous), with low suspended inorganic solids and low organic content</i>		199	Brine solution that could also bear the form code 113
101	Aqueous waste with low solvents	Organic Liquids — <i>Waste that is primarily organic and is highly fluid, with low inorganic solids content and low-to-moderate water content</i>	
102	Aqueous waste with low other toxic organics	201	Concentrated solvent-water solution
103	Spent acid with metals	202	Halogenated (e.g., chlorinated) solvent
104	Spent acid without metals	203	Non-halogenated solvent
105	Acidic aqueous waste	204	Halogenated/non-halogenated solvent mixture
106	Caustic solution with metals but no cyanides	205	Oil-water emulsion or mixture
107	Caustic solution with metals and cyanides	206	Waste oil
108	Caustic solution with cyanides but no metals	207	Concentrated aqueous solution of other organics
109	Spent caustic	208	Concentrated phenolics
110	Caustic aqueous waste	209	Organic paint, ink, lacquer, or vanish
111	Aqueous waste with reactive sulfides	210	Adhesives or epoxies
112	Aqueous waste with other reactives (e.g., explosives)	211	Paint thinner or petroleum distillates

Appendix G—Form Codes

Code	Waste Description	Code	Waste Description
212	Reactive or polymerizable organic liquids	395	Nonhazardous solids containing greater than or equal to (>) 500 ppm PCBs
219	Other organic liquids (Specify in Comments)	396	Nonhazardous electrical equipment/ devices containing greater than or equal to (>) 50ppm and less than (<) 500 ppm PCBs
296	Ethylene glycol based antifreeze	397	Nonhazardous electrical equipment/ devices containing greater than or equal to (>) 500 ppm PCBs
297	Nonhazardous liquids containing greater than or equal to (>) 50 and less than (<) 500 ppm PCBs	398	Nonhazardous soils containing greater than or equal to (>) 50 ppm and less than (<) 500 ppm PCBs
298	Nonhazardous liquids containing greater than or equal to (>) 500 ppm PCBs	399	Nonhazardous soils containing greater than or equal to (>) 500 ppm PCBs
299	Nonhazardous photographic chemical waste (organic)		
Solids (These codes do not apply to pumpable waste.) Inorganic Solids — Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpable		Organic Solids — Waste that is primarily organic and solid, with low-to-moderate inorganic content and water content; not pumpable	
301	Soil contaminated with organics	401	Halogenated pesticide solid
302	Soil contaminated with inorganics only	402	Non-halogenated pesticide solid
303	Ash, slag, or other residue from incineration of wastes	403	Solids resins or polymerized organics
304	Other “dry” ash, slag, or thermal residue	404	Spent carbon
305	“Dry” lime or metal hydroxide solids chemically “fixed”	405	Reactive organic solid
306	“Dry” lime or metal hydroxide solids not “fixed”	406	Empty fiber or plastic containers
307	Metal scale, filings, or scrap	407	Other halogenated organic solids (Specify in Comments)
308	Empty or crushed metal drums or containers	409	Other non-halogenated organic solids (Specify in Comments)
309	Batteries or battery parts, casings, cores	488	Wood debris
310	Spent solid filters or adsorbents	489	Petroleum contaminated solids
311	Asbestos solids and debris	490	Sand blasting waste
312	Metal-cyanide salts/chemicals	491	Dewatered biological treatment sludge
313	Reactive cyanide salts/chemicals	492	Dewatered sewage or other untreated biological sludge
314	Reactive sulfide salts/chemicals	493	Catalyst waste
315	Other reactive salts/chemicals	494	Solids containing greater than or equal to (>) 50 ppm and less than (<) 500 ppm PCBs
316	Other metal salts/chemicals	495	Solids containing greater than or equal to (>) 500 ppm PCBs
319	Other waste inorganic solids (Specify in Comments)	496	Electrical equipment/devices containing greater than or equal to (>) 50 ppm and less than (<) 500 ppm PCBs
388	Empty or crushed glass containers	497	Electrical equipment/devices containing greater than or equal to (>) 500 ppm PCBs
389	Nonhazardous sandblasting waste	498	Soil containing greater than or equal to (>) 50 ppm and less than (<) 500 ppm PCBs
390	Nonhazardous concrete/cement/ construction debris	499	Soils containing greater than or equal to (>) 500 ppm PCBs
391	Nonhazardous dewatered wastewater treatment sludge		
392	Nonhazardous dewatered air pollution control device sludge		
393	Catalyst waste		
394	Nonhazardous solids containing greater than or equal to (>) 50 ppm and less than (<) 500 ppm PCBs		

Appendix G—Form Codes

Code	Waste Description	Code	Waste Description
Sludges (These codes only apply to pumpable waste.) Inorganic Sludges — Waste that is primarily inorganic, with moderate-to-high water content and low organic content, and pumpable		695 Petroleum contaminated sludges other than still bottoms and oily sludges 696 Grease 697 Catalyst waste 698 Nonhazardous sludges containing greater than or equal to (>) 50 ppm and less than (<) 500 ppm PCBs 699 Nonhazardous sludges containing greater than or equal to (>) 500 ppm PCBs	
501 Lime sludge without metals 502 Lime sludge with metals/metal hydroxide sludge 503 Wastewater treatment sludge with toxic organics 504 Other wastewater treatment sludge 505 Untreated plating sludge without cyanides 506 Untreated plating sludge with cyanides 507 Other sludge with cyanides 508 Sludge with reactive sulfides 509 Sludge with other reactives 510 Degreasing sludge with metal scale or filings 511 Air pollution control device sludge (e.g., fly ash, wet scrubber sludge) 512 Sediment or lagoon dragout contaminated with organics 513 Sediment or lagoon dragout contaminated with inorganics only 514 Drilling mud 515 Asbestos slurry or sludge 516 Chloride or other brine sludge 519 Other inorganic sludges (Specify in Comments) 597 Catalyst waste 598 Nonhazardous sludges containing greater than or equal to (>) 50 ppm and less than (<) 500 ppm PCBs 599 Nonhazardous sludges containing greater than or equal to (>) 500 ppm PCBs		Gases Inorganic Gases — Waste that is primarily inorganic with a low organic content and is a gas at atmospheric pressure 701 Inorganic gases Organic Gases — Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure 801 Organic gases	
Organic Sludges — Waste that is primarily organic with low-to-moderate inorganic solids content and water content, and pumpable		Plant Trash (In order to be considered for one of the two plant refuse designations, a waste must first meet the following two criteria. First, the waste must be a Class 2 waste. This means that a proper classification determination must be performed for each item which a facility is considering as one of the plant refuse designations. A waste is not a Class 2 solely because it has been designated as a plant refuse waste. Hazardous and Class 1 wastes are not eligible for designation as one of the plant refuses. Second, the waste must meet the particular definition of the plant refuse term. For more information on these terms, please refer to the terms listed in this table as well as the “Definitions” section which follows this table.)	
601 Still bottoms of halogenated (e.g., chlorinated) solvents or other organic liquids 602 Still bottoms on non-halogenated solvents or other organic liquids 603 Oily sludge 604 Organic paint or ink sludge 605 Reactive or polymerizable organics 606 Resins, tars, or tarry sludge 607 Biological treatment sludge 608 Sewage or other untreated biological sludge 609 Other organic sludges (Specify in Comments)		902 Supplemental plant production refuse – any Class 2 waste from production, manufacturing, or laboratory operations as long as the total amount of the supplemental plant production refuse does not exceed twenty percent of the total plant trash (form code 999) volume or weight, whichever is less – this could include, but is not limited to, such things as metal parts, floor sweepings, and off-specification materials 999 Plant Trash – any Class 2 waste originating in the facility offices, laboratory, plant production area or food services/cafeteria operations that is composed of paper, cardboard,	

Appendix G—Form Codes

Code	Waste Description	Code	Waste Description
	linings, wrappings, paper and/or wooden packaging materials, uncontaminated food wastes and/or packaging, cafeteria wastes, glass, aluminum foil, aluminum cans, aluminum scrap, stainless steel, steel, iron scrap, plastics, styrofoam, rope, twine, uncontaminated rubber, uncontaminated wooden materials, equipment belts, wirings,		uncontaminated cloth, metal bindings, empty containers with a holding capacity of less than five gallons, uncontaminated floor sweepings, and personal cosmetics generated by facility personnel (does not include cosmetics generated as a result of manufacturing or plant production operations).

Form Code Definitions

The following are definitions of terms utilized in form codes:

Acidic – A material having a pH less than 7.0.

Alkaline – A material having a pH greater than 7.0.

Aqueous – A water solution containing organic and/or inorganic constituents dissolved in solution.

Caustic – A material which is corrosive or irritating to living tissue and has a pH greater than 7.

Inorganic – Chemicals that are not organic (i.e., water, carbon dioxide, carbon disulfide, iron, zinc, steel). Generally, if a waste is composed of more than 50% inorganic materials, it is considered an inorganic waste.

Organic – Chemicals composed primarily of carbon and hydrogen and their derivatives. (i.e. methylene chloride, benzene, petroleum products). In general, if a waste is composed of 50% or more organic materials, it is considered an organic waste.

Plant Trash – Includes the following Class 2 wastes which are produced as a result of plant production, manufacturing, laboratory, general office, cafeteria or food service operations; paper, cardboard, linings, wrappings, paper or wood packaging materials, food wastes, cafeteria wastes, glass, aluminum foil, aluminum cans, aluminum scrap, stainless steel, steel, iron scrap, plastics, styrofoam, rope, twine, uncontaminated rubber, uncontaminated wooden materials, equipment belts, wirings, uncontaminated cloth, metal bindings, empty containers with a holding capacity of less than five gallons, uncontaminated floor sweepings, and personal cosmetics generated by facility personnel (does not include cosmetics generated as a result of manufacturing or plant production operations).

Please note that hazardous waste and Class 1 waste can not be designated as “plant office refuse”. Plant trash shall not include oils, lubricants of any type, oil filters, contaminated soils, sludges, or wastewaters.

Examples of “plant trash” include Class 2 soda cans, lunch sacks, food scraps, envelopes, plastic binders, empty boxes, pallets, styrofoam shipping boxes, chemical container liners, shrink wrap, and broken glassware.

As another example, used typing paper from the secretarial area could be considered “plant trash” because it resulted from general office operations. (Please note that typing paper would normally be considered a Class 2 waste unless it were contaminated with something to cause it to be considered a hazardous or Class 1 waste. For example, if typing paper were used to clean up a spill of a F003 waste, it would be considered a hazardous waste.)

As another example, a Class 2 off-specification production chemical could not be considered “plant trash” because it does not meet the definition of a “plant trash”. However, the Class 2 off-specification production chemical might be considered a “supplemental plant production refuse” as long as the weight/volume limits established for “supplemental plant production refuse” were not exceeded. (For more information on “supplemental plant production refuse” and weight/volume limits, please see “Supplemental Plant Production Refuse” in these definitions.

Reactive – A material is reactive if it is capable of detonation or explosive decomposition:

1. at standard temperature and pressure, or
2. if subjected to a strong ignition source, or
3. heated under confinement.

A material is also considered reactive if, when mixed with water it is:

1. potentially explosive, or
2. reacts violently, or
3. generates toxic gases or vapors (i.e. hydrogencyanide or hydrogensulfide).

Appendix G—Form Codes

Form Code Definitions

A material is also considered reactive if it is:

1. normally unstable and readily undergoes violent changes, or
2. a forbidden explosive (see 49 CFR §173.53), or
3. a Class B explosive (see 49 CFR §173.88).

Solvent – A liquid used to dissolve another material.

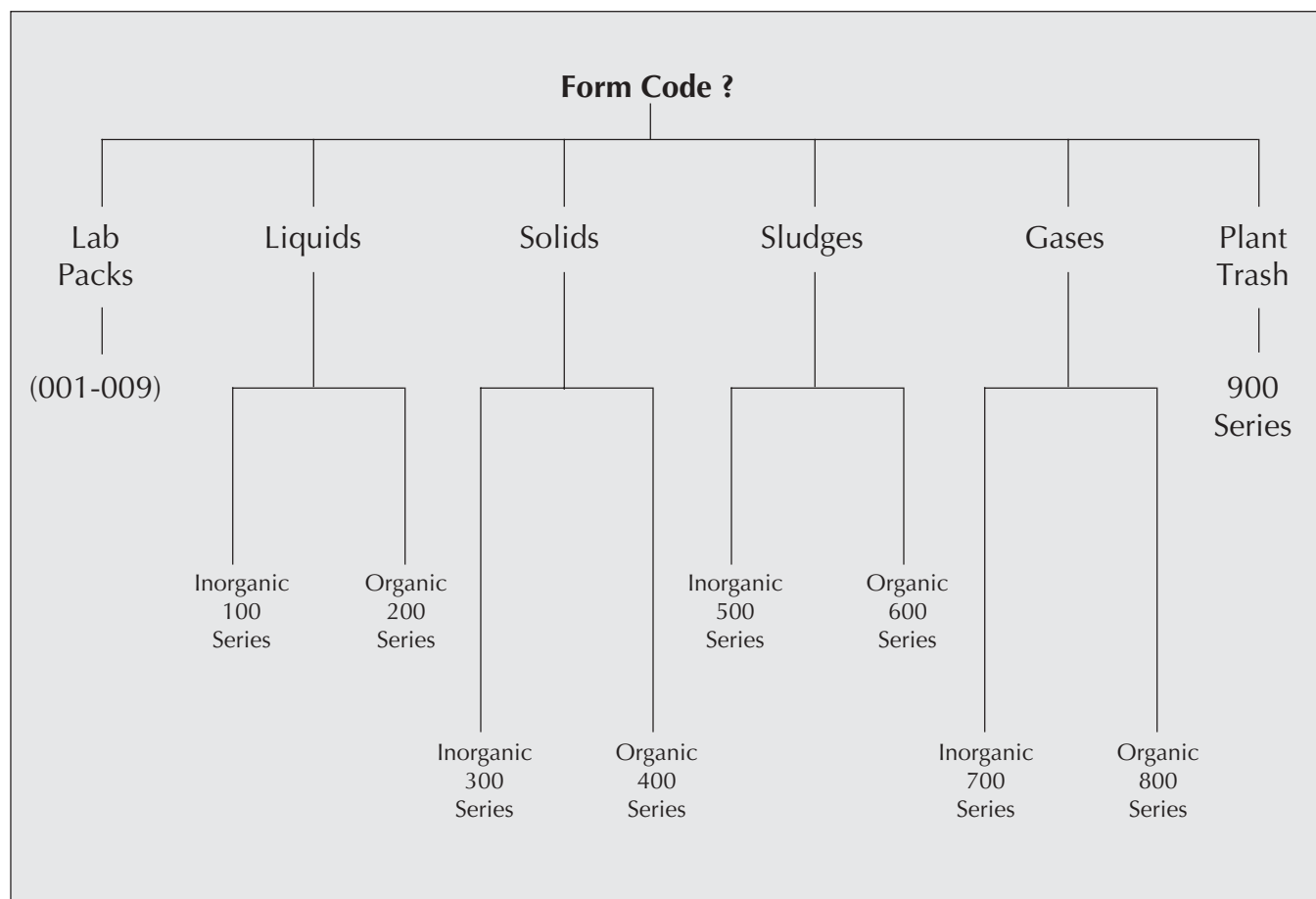
Supplemental Plant Production Refuse – Any **Class 2 Waste from production, manufacturing, or laboratory operations** can be designated as “supplemental plant production refuse” (form code 999) as long as the total amount of the supplemental plant production refuse **does not exceed twenty percent of the total plant production refuse volume or weight, whichever is less.**

Individual wastes which have been designated “supplemental plant production refuse” may be designated by the generator at a later time as a separate waste in order to maintain the “supplemental plant production refuse” at a level below 20% of the “plant trash” amount. For any waste stream so redesignated, the generator must provide the initial notification information required pursuant to 30 TAC Chapter 335.

Please note that hazardous waste and Class 1 waste can not be designated as “supplemental plant production refuse”.

Examples of “supplemental plant production refuse” include Class 2 steel shavings, empty metal containers, aerosol cans, old chemicals, safety equipment, and machine parts.

Please note that when a site notifies the Commission that it generates “supplemental plant production refuse”, it must include a list of those wastes which are expected to be included in the “supplemental plant production refuse” designation. If that list increases, the generator must notify the Commission of the additions to that list; otherwise, the Commission will not view the additions as “supplemental plant production refuse”.



Appendix G—Form Codes

Liquids	
Inorganic – 100 series	Organic – 200 series
<i>(Waste that is primarily inorganic and highly fluid, (e.g., aqueous), with low suspended solids and low organic content.)</i>	<i>(Waste that is primarily organic and is highly fluid, with low inorganic solids and low-to-moderate water content.)</i>
Examples:	Examples:
1. 99% water with 1% methanol 101	1. Solvent mixture 65% methylene chloride, 30% phenol, 5% cresol 204
2. 98% water with 2% methyl ethyl ketone MEK 102	2. 95% motor oil, 5% water emulsion 205
3. Waste sulfuric acid from plastics cleaning 104	3. Used hydraulic oil 206
4. Water with 0.73% potassium permanganate 114	4. Unused varnish and organic paint 209
5. Leachate from landfills 116	5. Waste ethylene glycol antifreeze 296
6. Waste photographic fixer 198	

Solids	
Inorganic – 300 series	Organic – 400 series
<i>(Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpable.)</i>	<i>(Waste that is primarily organic and solid, with low-to-moderate inorganic and water content; not pumpable.)</i>
Examples:	Examples:
1. Soil contaminated with naphtha 301	1. Unused malathion pellets 402
2. Incinerator ash 303	2. Spent carbon from filters 404
3. Crushed RCRA empty metal drums 308	3. Wooden house exterior debris 488
4. Lead acid batteries, chips and cores 309	4. Paper contaminated with oil 489
5. Concrete, plaster and other construction debris 390	5. Sand blasting waste from petroleum tanks 490
6. Metallic catalyst waste 393	6. Dewatered sewage sludge 492

Appendix G—Form Codes

Sludges	
Inorganic – 500 series	Organic – 600 series
<i>(Waste that is primarily inorganic, with moderate-to-high water content, and low organic content, and pumpable.)</i>	<i>(Waste that is primarily organic, with moderate-to-high water content, and low inorganic content, and pumpable.)</i>
Examples:	Examples:
1. Wastewater treatment sludge containing phenolics 503 2. Zinc plating wastewater sludge containing cyanide 506 3. Sludge from pollution removal scrubber 511 4. Sediment pond dragout contaminated with lead 513 5. Water based drilling mud with brine 514 6. Waste metal catalyst with 0.89% organics 597	1. Still bottoms from naptha recovery 602 2. Ink and paint sludge from printing billboards 604 3. Bioremediation sludge from oil spill cleanup 607 4. Motor repair facility sludge with grease 603 5. Refinery wastewater sludge with petroleum compounds 695 6. Waste lubricating grease 696

Lab Packs – 001-009 series	Plant Trash – 900 series
Examples:	Examples:
1. Lab pack containing debris 002 2. Lab pack containing old unused or partially used chemicals 001	1. Office debris (i.e., paper, plastic, alluminum cans and fax paper) 999 2. Scrap plastic from molds of toys and souvenirs 902 3. Packing debris from unpacking of raw materials 999

Codes for Out-of-State Waste Generators and Receivers

Codes for States of the United States				Country Codes (in Order of Assigned Numbers)		
State or Country	Abbreviation	Generator No.	Receiver No.	State or Country	Generator No.	Receiver No.
Alabama	AL	D0001	D0001	Navajo Nation	D0057	D0057
Alaska	AK	D0002	D0002	Puerto Rico	D0060	D0060
Arizona	AZ	D0004	D0004	Virgin Islands	D0066	D0066
Arkansas	AR	D0005	D0005	Guam	D0075	D0075
California	CA	D0006	D0006	American Samoa	D0083	D0083
Colorado	CO	D0008	D0008	Mexico	F0061	F0061
Connecticut	CT	D0009	D0009	Japan	F0062	F0062
Delaware	DE	D0010	D0010	Canada	F0063	F0063
Dist. of Columbia		D0011	D0011	England	F0064	F0064
Florida	FL	D0012	D0012	Spain	F0065	F0065
Georgia	GA	D0013	D0013	Denmark	F0067	F0067
Hawaii	HI	D0015	D0015	Germany	F0068	F0068
Idaho	ID	D0016	D0016	Belgium	F0069	F0069
Illinois	IL	D0017	D0017	Finland	F0070	F0070
Indiana	IN	D0018	D0018	Netherlands	F0071	F0071
Iowa	IA	D0019	D0019	Pacific Islands	F0072	F0072
Kansas	KS	D0020	D0020	Venezuela	F0073	F0073
Kentucky	KY	D0021	D0021	Marshall Islands	F0074	F0074
Louisiana	LA	D0022	D0022	France	F0076	F0076
Maine	ME	D0023	D0023	Malaysia	F0077	F0077
Maryland	MD	D0024	D0024	Austria	F0078	F0078
Massachusetts	MA	D0025	D0025	Holland	F0079	F0079
Michigan	MI	D0026	D0026	Hong Kong	F0080	F0080
Minnesota	MN	D0027	D0027	Norway	F0081	F0081
Mississippi	MS	D0028	D0028	Panama	F0082	F0082
Missouri	MO	D0029	D0029	Greece	F0084	F0084
Montana	MT	D0030	D0030	Peru	F0085	F0085
Nebraska	NE	D0031	D0031	Brazil	F0086	F0086
Nevada	NV	D0032	D0032	Offshore beyond 12 mi.	F0087	F0087
New Hampshire	NH	D0033	D0033	Saudi Arabia	F0088	F0088
New Jersey	NJ	D0034	D0034	Jamaica	F0089	F0089
New Mexico	NM	D0035	D0035	Italy	F0090	F0090
New York	NY	D0036	D0036	Belize	F0091	F0091
North Carolina	NC	D0037	D0037	Luxemburg	F0092	F0092
North Dakota	ND	D0038	D0038	Haiti	F0093	F0093
Ohio	OH	D0039	D0039	Nicaragua	F0094	F0094
Oklahoma	OK	D0040	D0040	Australia	F0095	F0095
Oregon	OR	D0041	D0041	Sweden	F0096	F0096
Pennsylvania	PA	D0042	D0042	El Salvador	F0097	F0097
Rhode Island	RI	D0044	D0044	Trinidad de Tobago	F0098	F0098
South Carolina	SC	D0045	D0045	Taiwan	F0099	F0099
South Dakota	SD	D0046	D0046	Cambodia	F0001	F0001
Tennessee	TN	D0047	D0047	Bahamas Islands	F0002	F0002
Utah	UT	D0049	D0049	Columbia	F0003	F0003
Vermont	VT	D0050	D0050	South Africa	F0004	F0004
Virginia	VA	D0051	D0051	China	F0005	F0005
Washington	WA	D0053	D0053	India	F0006	F0006
West Virginia	WV	D0054	D0054	Chile	F0007	F0007
Wisconsin	WI	D0055	D0055	Thailand	F0008	F0008
Wyoming	WY	D0056	D0056	Slovenia	F0009	F0009
				Netherlands Antilles (A,B,C)	F0010	F0010
				Honduras	F0011	F0011