DEPARTMENT OF ECOLOGY
State of Washington

Focus On: Treatment by Generator

Why does it matter?

The Dangerous Waste Regulations (Chapter 173-303 WAC)[1] are designed to make sure we manage dangerous wastes in a way that protects our health and the environment.

The Department of Ecology promotes waste treatment by generators to encourage on-site waste reduction and waste management. This helps reduce risks associated with transporting dangerous waste and transferring risk to other communities.

Contact information

Northwest Regional Office:
425-649-7000

Southwest Regional Office:
360-407-6300

Central Regional Office:
509-575-2490

Eastern Regional Office:
509-329-3400

ADA Accessibility

To request an ADA accommodation, contact Ecology by phone at 360-407-6700 or email at hwtrpubs@ecy.wa.gov, or visit ecology.wa.gov/accessibility. For Relay Service or TTY call 711 or 877-833-6341.

Figure 1: Drums containing dangerous waste, properly labeled and stored safely while waiting for disposal or treatment by generator.

What is treatment by generator?

If your facility is a large or medium quantity generator, you may be able to treat your own waste on site without getting a dangerous waste treatment permit. Treatment by generator (TBG) requirements[2] are the methods you must follow to treat dangerous waste or special waste on site for shipment or disposal.

Commonly accepted methods for treating waste include:

- Aldehyde Deactivation
- Carbon adsorption
- Elementary neutralization
- Evaporation
- Filtration
- Polymerization
- Separation
- Solidification and stabilization

Treatment by generator rules do not apply to wastes that will be recycled, reclaimed, or reused. For example, solvent distillation or photo processing silver recovery are not TBG activities.

Can small quantity generators treat waste?

Small quantity generators may treat their own waste if they follow Ecology's guidance in the Small Quantity Generators Treating Dangerous Waste[3] publication. Small quantity generators that don't follow this guidance will be subject to a TSD permit.

[1] http://bit.ly/173-303
[2] WAC 173-303-170(2)(b)
[3] https://bit.ly/SQGsTreatingDW

Definition of treatment

Treatment is when dangerous waste is processed physically, chemically, or biologically to make it non-dangerous or less dangerous, safer for transport, recoverable for energy or material resources, safer for storage, or reduced in volume. More details, including exceptions, are available in the dangerous waste regulations (WAC 173-303-040).[4]

Requirements

You must follow these requirements:

- Treat wastes only in containers, tanks, or containment buildings.[5]
- Use containers that meet all container standards.[6]
- Use tanks that meet all tank standards.[7]
- Use containment buildings that meet all containment buildings standards.[8]
- Meet all conditions for exclusion that apply to your facility's dangerous waste generator category.[9]

Treatment **must not**:

- Use a process involving thermal treatment.
- Involve applying waste to the land or mixing it into the soil (land treatment).
- Use detonation or open burning.
- Allow extreme heat or pressure to be generated.
- Cause a fire, explosion, or violent reaction.
- Produce uncontrolled toxic mists, fumes, dusts, or gases.
- Produce uncontrolled flammable fumes or gases.
- Threaten to damage the structural integrity of the facility or the device containing the waste.
- Threaten human health or the environment.

Figure 2: Workers treat dangerous waste.

[4] https://bit.ly/173-303-040
[5] WAC 173-303-170(2)(b)(v) defines an exception for special waste.
[6] WAC 173-303-172(5) and WAC 173-303-200(3)
[7] WAC 173-303-172(6) and WAC 173-303-200(4)
[8] WAC 173-303-172(8) and WAC 173-303-200(6)
[9] WAC 173-303-172, -174, -200

Treatment by generator in central accumulation areas

Because treatment has inherent risk, all TBG activities must take place in a central accumulation area (CAA) where there are additional requirements such as weekly inspections and secondary containment. You cannot treat your waste in a satellite accumulation area (SAA).

You are not limited to the number, location, or size of CAAs on your site, as long as you meet the applicable requirements. You may treat at or near the point of generation if you follow all CAA rules[10] where treatment occurs. This can be done by clearly marking boundaries between an SAA and CAA.

Example in a laboratory setting

You accumulate waste from an analytical machine in a fume hood, following the satellite accumulation rules. In the fume hood, the area around the SAA container is taped off, clearly marking where satellite accumulation occurs. When this container is full, you move it from the SAA to the CAA in the same fume hood, so you can neutralize.

Example in a hospital setting

You accumulate waste formalin in an SAA. When the container is full, you move it to a nearby dedicated CAA to deactivate and send to a publicly owned treatment works. This CAA can be in the same room, as long as it meets all CAA rules.

Accumulation time limits

All dangerous waste and dangerous waste treatment residue must be shipped off site within the accumulation time limit:

- 90 days for large quantity generators.
- 180 days for medium quantity generators.

Any residues from dangerous waste treatment need to be marked with the date that the original waste's accumulation began. These time limits also apply for multi-stage, multi-vessel processes.

Example of accumulation time limits

A dangerous waste sludge is treated by evaporation in a tank to reduce the volume by removing water. The remaining dry sludge is still a dangerous waste. If the accumulation start date for the wet sludge before treatment is March 9, the start date for the dry sludge after treatment is also March 9. A new accumulation time limit does not begin for the sludge after removing it from the treatment unit.

Reporting and recordkeeping

Waste treatment log

You must maintain a written log of all dangerous waste treated on site, including the dates of treatment and amounts of each dangerous waste treated.

Notification and dangerous waste annual report

Before beginning the treatment process, you must submit a Site Identification Form[11] or revise your existing form to include TBG (checkbox #6 in Section 10e of the form). You must note the type of treatment in the comment section (such as neutralization, filtration, solidification and stabilization, carbon adsorption, evaporation, or separation).

[10] For medium quantity generator rules about central accumulation areas, please see WAC 173-303-172. For large quantity generator rules, please see WAC 173-303-200 and 201.
[11] https://bit.ly/DWSiteIDInstructions

Your generator category (medium or large) must include the total quantity of waste generated before treatment (including the weight of any liquids) as well as the weight of any dangerous waste remaining after treatment.

For more information about Dangerous Waste Annual Reporting, call us at 1-800-874-2022 or visit our Dangerous waste annual report forms webpage.[12]

Discharge to sewer after treatment

Sometimes dangerous waste is treated to prepare it for discharge to a sewer under the domestic sewage exclusion or permit by rule.

Domestic sewage exclusion

If a waste is still a dangerous waste after treatment, it must meet domestic sewage exclusion[13] requirements before it can be discharged to a sewer that leads to a publicly owned treatment works (POTW):

- The waste must be treatable in the POTW where it will be received. Dilution is not acceptable treatment.
- You must have a permit or written authorization from the POTW allowing the discharge of that specific waste.

Permit by rule

If you have a wastewater discharge permit that covers your dangerous waste, treatment process, and resulting discharge to a POTW, the treatment and discharge may be regulated under permit by rule rather than TBG. Please refer to the permit by rule regulations[14] for details and requirements.

The permit by rule requirements also apply to wastes that are treated in a wastewater treatment unit or elementary neutralization unit. They may be discharged to a POTW if the generator has a wastewater discharge permit or authorization.

Figure 3: Our compliance specialists can answer questions about treating your dangerous waste.

[12] https:// ecology.wa.gov/DWReport
[13] WAC 173-303-071(3)(a)
[14] WAC 173-303-802(5)

Guidelines for specific types of treatment

Many different types of treatment processes can meet the TBG requirements. A summary of the most common are below, along with links to publications with more information.

Aldehyde deactivation

Aldehyde deactivation[15] mixes deactivating chemicals with spent aldehydes to reduce toxicity so the aldehydes no longer designate as a dangerous waste.

Carbon adsorption

Carbon adsorption[16] uses activated carbon to remove components from a liquid or gaseous waste. Carbon adsorption generates a treated waste, spent carbon, and sometimes a backwash effluent waste stream (backwash disengages solids that have been entrapped in the bed). Activated carbon is "spent" when its adsorptive capacity is severely depleted.

Elementary neutralization

Elementary neutralization[17] reduces a waste's corrosive properties by raising or lowering the waste's pH to a more neutral pH range between 6 and 9.

Evaporation

Evaporation[18] removes water from waste to reduce the dangerous waste's weight and volume. After the water is evaporated, a smaller residue is left for disposal as dangerous waste.

Filtration

Filtration[19] drains waste effluents, slurries, and sludge generated from industrial treatment processes to remove undissolved heavy metals present in suspended solids.

Polymerization

Polymerization[20] uses liquid resins to form a solid polymer. Plastic resin wastes can be treated by reacting them with a catalyst to produce a chemically stable hard plastic that is no longer an ignitable dangerous waste.

Separation

Separation[21] splits mixtures into individual components of different densities. Treatments could include air floatation, centrifugation, coagulation or flocculation, decanting, emulsion breaking or demulsification, ion exchange, oil skimming or phase separation, precipitation, or sedimentation (or clarification).

Solidification and stabilization

Solidification[22] and stabilization technologies use additives to reduce the mobility or toxicity of pollutants in the waste.

- **Solidification** physically limits the mobility of dangerous waste by reducing or eliminating free liquids.
- **Stabilization** chemically limits the hazard potential of dangerous waste by converting the constituents into a less soluble form.

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[15] https://fortress.wa.gov/ecy/publications/SummaryPages/1404003.html
[16] https://fortress.wa.gov/ecy/publications/SummaryPages/96415.html
[17] https://fortress.wa.gov/ecy/publications/SummaryPages/96417.html
[18] https://fortress.wa.gov/ecy/publications/SummaryPages/96414.html
[19] https://fortress.wa.gov/ecy/publications/SummaryPages/96413.html
[20] https://fortress.wa.gov/ecy/publications/SummaryPages/1404002.html
[21] https://fortress.wa.gov/ecy/publications/SummaryPages/96418.html
[22] https://fortress.wa.gov/ecy/publications/SummaryPages/96416.html

Get help

For assistance, please contact a dangerous waste specialist at one of the following Ecology offices:

Department of Ecology Regional Offices

Northwest Regional Office, Bellevue: 425-649-7000

Counties: Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom

Southwest Regional Office, Lacey: 360-407-6300

Counties: Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum

Central Regional Office, Union Gap: 509-575-2490

Counties: Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima

Eastern Regional Office, Spokane: 509-329-3400

Counties: Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman

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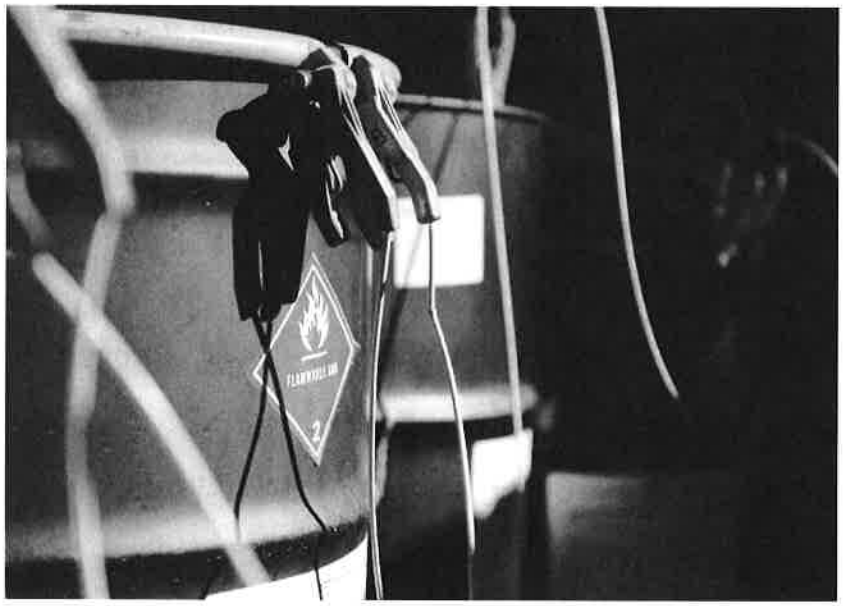

Counting Dangerous Waste

Under the Dangerous Waste Regulations

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- Headquarters, Olympia: 360-407-6000
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- Southwest Regional Office, Olympia: 360-407-6300
- Central Regional Office, Union Gap: 509-575-2490
- Eastern Regional Office, Spokane: 509-329-3400

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[1] https://ecology.wa.gov/About-us/Accountability-transparency/Our-website/Accessibility

Counting Dangerous Waste

Under the Dangerous Waste Regulations

Hazardous Waste and Toxics Reduction Program

Washington State Department of Ecology

Olympia, Washington

Table of Contents

Introduction

This document will help you understand when and how to count dangerous waste as described in the Dangerous Waste Regulations, Chapter 173-303 WAC.[2] **Counting** means calculating the total weight of dangerous waste generated during a calendar month.

This document is not intended to replace state or federal regulations, explain how to designate waste, or cover every possible situation. It includes information about:

- Quantity Exclusion Limits
- Storage and Accumulation
- Recycling and Excluded Wastes
- Multiple Counting Exemption
- Treatment by Generator
- Permit-by-Rule
- Domestic Sewage Exclusion
- Counting and Annual Reporting

Why count dangerous waste?

By counting your dangerous waste, you are able to:

- Determine if your business is a small, medium, or large quantity generator.
- Understand what you need to include in the Dangerous Waste Annual Report.
- Determine if you need to submit a Pollution Prevention Plan.[3]

How often should you count?

You must count your dangerous waste each calendar month. Changes in the amount of your dangerous waste can affect your generator category[4].

[2] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-303
[3] http://www.ecology.wa.gov/p2plan
[4] https://ecology.wa.gov/GeneratorStatus

Quantity Exclusion Limits

Quantity exclusion limits (QELs) determine your generator category by defining how much of each type of waste, by weight, you generate **per month**. QELs differ based on the designation, or waste codes, assigned to your waste.

You may generate more than one kind of dangerous waste (DW). If this happens, use the combined quantity of wastes when determining your generator category. Waste quantities must be combined for all waste with common QELs.

Most dangerous wastes have a QEL of 220 pounds. But some wastes are considered more dangerous and have a QEL of only 2.2 pounds, such as acutely hazardous waste (P-listed) and extremely hazardous waste (WT01).

Table 1: How much of each type of dangerous waste a generator can create each month.

Generator category	Amount of DW with a monthly QEL of 2.2 pounds	Amount of DW with a monthly QEL of 220 pounds	Amount of DW cleanup residue with a monthly QEL of 2.2 pounds[5]
Large quantity generator	Greater than 2.2 pounds	Any amount	Any amount
Large quantity generator	Any amount	Greater than or equal to 2,200 pounds	Any amount
Large quantity generator	Any amount	Any amount	Greater than 220 pounds
Medium quantity generator	Less than or equal to 2.2 pounds	Greater than 220 pounds and less than 2,200 pounds	Less than or equal to 220 pounds
Small quantity generator	Less than or equal to 2.2 pounds	Less than or equal to 220 pounds	Less than or equal to 220 pounds

For more information about determining your generator category, see WAC 173-303-169.[6]

[5] This column refers to any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste or WT01 extremely hazardous waste.

[6] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-303-169

Storage and Accumulation

Storage means holding dangerous waste for a temporary period. **Accumulation** of dangerous waste is considered a form of storage. Generators are exempt from dangerous waste storage permit requirements as long as they meet the conditions for exemption in WAC 173-303-170(2)(b).

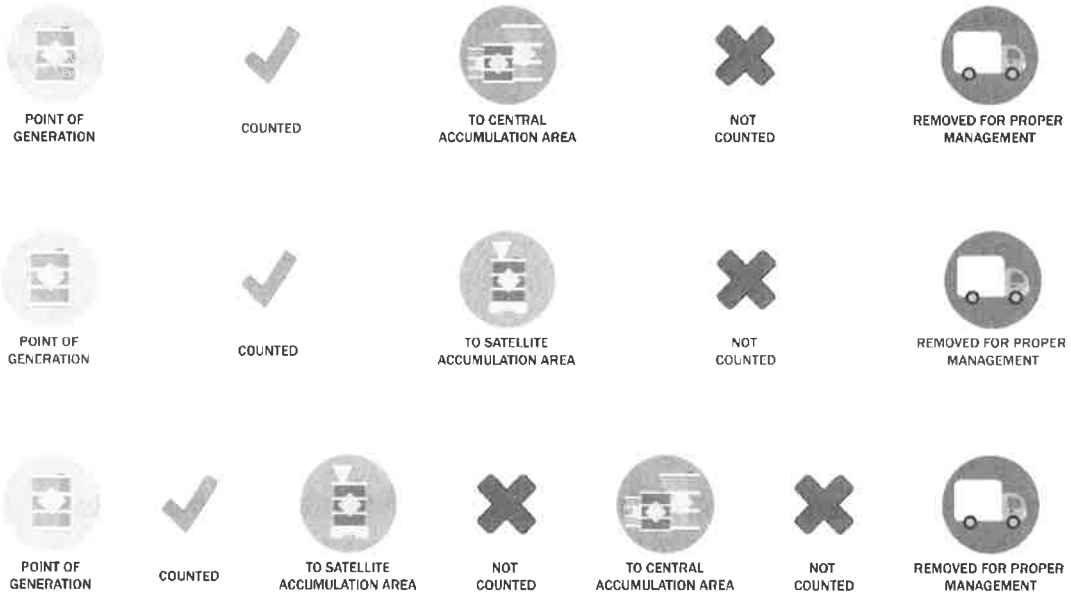
When to count accumulated dangerous waste

As figure 1 below shows, dangerous waste is counted when it's generated, **before** accumulation in your central accumulation area (CAA) or satellite accumulation area (SAA).

When the waste is removed from your CAA or SAA, it does not need to be counted again.

Dangerous waste accumulated under the SAA provisions is also counted on a monthly basis (see WAC 173-303-174). For more guidance on satellite accumulation refer to our Focus on: Satellite Accumulation Areas[7] publication.

Figure 1: Dangerous waste counted under the accumulation regulations



[7] https://fortress.wa.gov/ecy/publications/SummaryPages/1904029.html

Recycling and Excluded Wastes

Dangerous wastes that are stored, disposed, treated, recycled, or manifested are normally counted. However, in some circumstances dangerous wastes do not need to be counted. See the flow chart, Counting Dangerous Waste Involved in Recycling,[8] for a visual guide.

General definitions

Recycle: to use, reuse, or reclaim a material.

Use or reuse: to employ a material as an ingredient in an industrial process, or to use it as a substitute for a commercial product, without first being reclaimed.

When wastes are not counted

Wastes are **not** counted when they are:

- **Recycled following a specific type of management**

  Certain wastes are not counted toward the generator's category when they're recycled following specific types of management. Examples are used oil, spent chlorofluorocarbon (CFC) and hydro-chlorofluorocarbon (HCFC refrigerants), spent lead acid batteries, used batteries, scrap metal, spent antifreeze, waste recycled without prior storage or accumulation (see Recycling Without Prior Accumulation of Storage section), and waste recycled under the multiple counting exemption (see Multiple Counting Exemption section). See WAC 173-303-169(4 & 5).

- **Conditionally exempt**

  Some dangerous wastes are exempt when managed under WAC 173-303-017(2). They are not counted and are exempt from reporting.

- **Conditionally excluded by a type of waste management**

  Some dangerous wastes are conditionally excluded from the dangerous waste regulations and do not need to be counted. Specific terms must be met.

  Conditionally excluded materials are either not dangerous waste, are regulated under other state and federal programs, or are recycled in ways that do not threaten public health or the environment. Examples include treated wood waste, polychlorinated biphenyls (PCBs) managed under the Toxic Substances Control Act (TSCA), waste generated in a product or raw material storage tank until removed, and waste reclaimed and reused in a closed loop system (see WAC 173-303-071).

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[8] Refer to Flow Chart: Counting Dangerous Waste Involved in Recycling section

- **Special waste**

  Special Waste is state-only dangerous waste that is conditionally excluded by WAC 173-303-073. A waste must be fully designated before it can be identified as Special Waste. Special Wastes are defined in WAC 173-303-040.

  Generators with special waste can either manage it as fully regulated dangerous waste or follow the conditional exclusions of WAC 173-303-073. Special waste is not counted when determining generator category, but does need to be reported and counted towards Pollution Prevention Planning and fees. For more information see our Focus on Managing Special Waste[9] publication.

- **Episodic dangerous waste**

  If you are asmall or medium quantity generator, you can manage qualifying episodic dangerous waste under alternative standards (WAC 173-303-173) without counting it towards your monthly generator category. Episodic events include activities that do not normally occur during your operations, and result in a large amount of waste that exceeds your usual generator category.

  Although your generator category remains the same, episodic waste still counts towards the Hazardous Waste Planning Fee and Pollution Prevention Planning.

  For more information, see our publication Focus on: Episodic Generation.[10]

[9] https://fortress.wa.gov/ecy/publications/summarypages/961254hwtr.html
[10] https://fortress.wa.gov/ecy/publications/SummaryPages/1904019.html

Recycling Without Prior Accumulation or Storage

Without prior storage or accumulation means that as soon as the waste is generated, it immediately enters the recycling unit and is not counted.

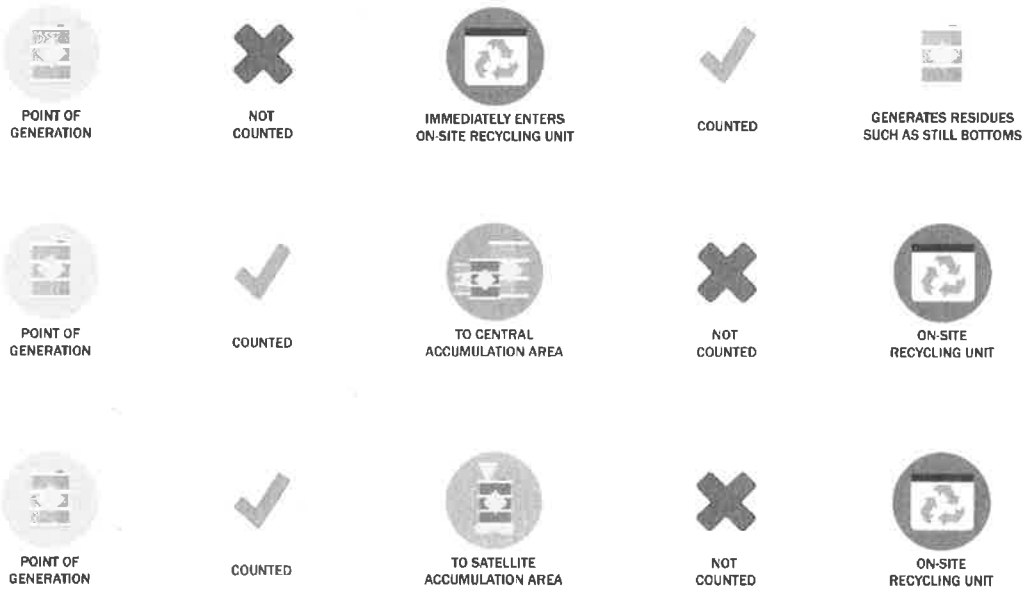
Under this counting exclusion, recycling must come **before** accumulation or storage. Wastes in containers only meet the meaning of "without prior storage or accumulation" if they are transferred to the recycling unit **immediately** upon generation. For more detail, see WAC 173-303-169(4)(d).

When to count dangerous waste under recycling provisions

As figure 2 below shows, if your dangerous waste immediately enters your on-site recycling unit, it does not need to be counted. However, dangerous waste residues generated from the recycling activity must be counted.

Dangerous waste stored or accumulated prior to recycling is counted before it enters the central accumulation area or satellite accumulation area. It is not counted when it is moved from these accumulation areas to your on-site recycling unit. Refer to the Multiple Counting Exemption section for information about this exemption.

Figure 2: Dangerous waste residues generated from recycling activity



Multiple Counting Exemption

Businesses that store or accumulate spent solvents on site before they are recycled must count them as dangerous waste. There are two reasons for counting these wastes:

1. To determine whether you are a small, medium, or large quantity generator for that particular month.
2. To report the combined monthly total on your Dangerous Waste Annual Report (see the Counting and Annual Reporting Requirements section).

The multiple counting exemption benefits generators because it removes the need to count spent solvents twice when generated in the same month. Frequent recycling increases the benefit from this exemption.

Facilities that have reclaimed and reused solvents multiple times during the month:

- May qualify for a lower generator category and fewer regulatory requirements.
- May lower their Pollution Prevention fees.

Spent materials generated, reclaimed, and reused on site are counted only once per month (WAC 173-303-169(5)(b)). Therefore, you do not need to count every single batch of spent solvent that is distilled during the month.

When are spent solvents counted?

You should not count spent solvents when there is no accumulation or storage. For example, if a still is hard-piped directly to a production process and the reclaimed solvent is returned to that process, also by hard pipe, there has been no accumulation or storage so spent solvents are not counted.

You must count spent solvents when there is storage or accumulation. Record solvents accumulated in one or more containers on a Monthly Generator Category Form[11] until you are ready to operate the still.

> **Note:** Small quantity generators are typically not required to report their counted spent solvents; however, we recommend all small quantity generators keep a log so they can accurately demonstrate their generator category.

[11] See the Monthly Recycling Form Example below.

You must record each amount of spent solvents accumulated before recycling; this includes solvents in satellite accumulation containers. At the end of the month, the largest number recorded in the "pounds collected before recycling" column is the quantity of solvent waste to count, whether recycling has actually taken place or not. Spent solvents accumulated and not recycled by the end of the month must be carried over into the next month.

In the new month, add the solvent that was not recycled to any recently generated spent solvents. The combined amount may be the largest amount accumulated in the second month. To avoid this larger count in the second month, you may choose to recycle all waste before the end of the month. End-of-month recycling will eliminate accumulated solvent carry-over into the following month. Most generators find it is easier to recycle often and avoid counting these larger volumes.

You must count any spilled or mishandled waste towards your generator category. Any dangerous waste residues (such as still bottoms) produced from the recycling process must also be counted.

Don't count lost solvent

During production and cleaning processes, solvents may be "lost" by evaporation or on cleaned parts. These solvents should not be counted. Replenishing the lost solvent with virgin solvent should not be counted either.

Minimize evaporative loss

Maintain your distillation unit to minimize solvent loss through evaporation. Air emissions can contain toxic organic compounds as well as ozone pollutants. Perform preventative maintenance on your equipment to maximize performance and reduce environmental risk:

- Replace seals and gaskets when needed.
- Conduct a tightness analysis.
- Repair leaks.
- Regularly clean the still.

Large quantity generators must also meet RCRA Organic Air Emissions Standards depending on the type of waste and unit.

Example 1

The examples below do not cover every situation or counting method in relation to the multiple counting exemption. They are intended as a guide, but if you have specific questions please contact your regional Ecology office.[12]

A fiberglass shop recycles spent acetone from cleaning processes on site. Spent solvent is accumulated in 55-gallon drums and distilled three times during the month.

1. On January 10, the shop starts distilling 160 pounds of collected spent solvent (counting from January 1). They may or may not distill all 160 pounds in a single still run, depending on the capacity of the still.
2. Meanwhile, the shop generates more spent solvent. It accumulates 150 pounds and starts distilling it on January 17.
3. Again, the shop generates 180 more pounds of solvent and begins distilling it on January 28.

The quantity of spent solvent (not including still bottoms) reported for the month should be 180 pounds. This is the largest amount of spent solvent accumulated prior to on-site recycling.

A monthly generator category form like the example below may be helpful for determining the monthly reportable quantity of spent solvent. It is not required, but is recommended so you can demonstrate you accurately counted and reported the recycling amount.

Monthly Recycling Form Example

Distillation Start Date	Pounds collected before recycling	Pounds of still bottoms generated
January 10	160	20
January 17	150	10
January 28	180	30

How to calculate solvent waste for January:

Add the largest number in column two (the pounds collected before recycling) to the total of column three (the pounds of still bottoms generated).

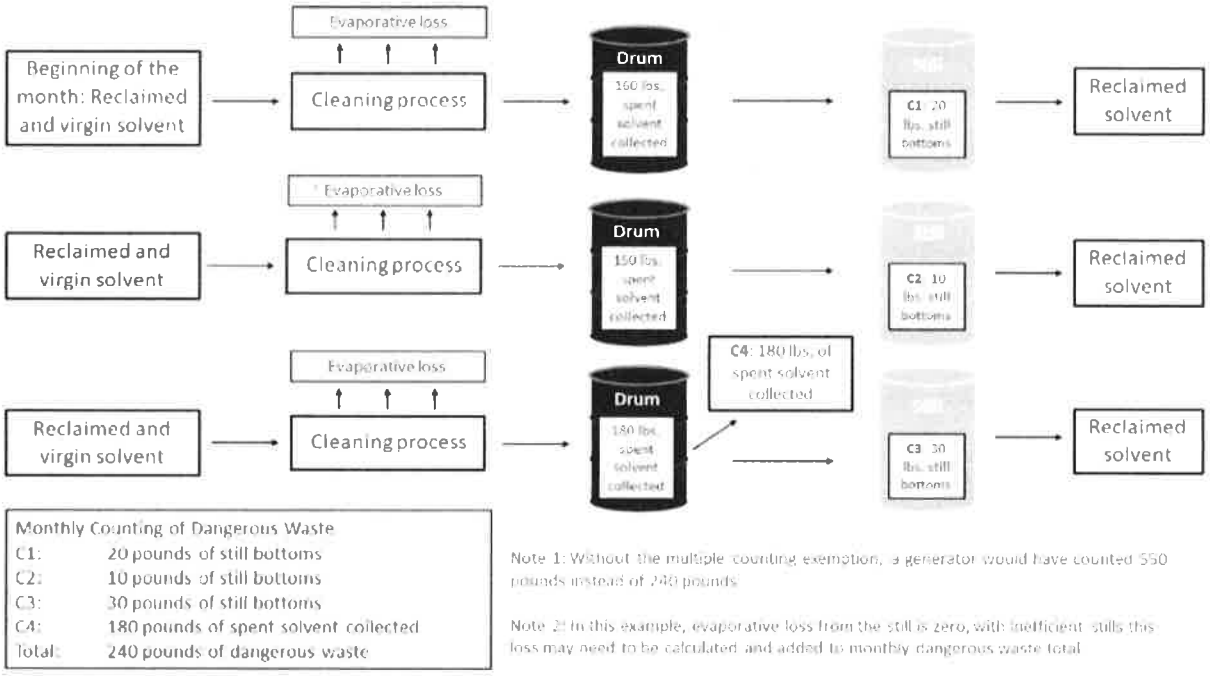
Pounds collected before recycling: 180
Pounds of still bottoms generated: 60
180 + 60 = 240 pounds of solvent waste counted.

[12] https://ecology.wa.gov/contact.html

Without the multiple counting exemption, a generator would have counted 550 pounds instead of 240 pounds. In this example, evaporative loss from the still is zero. With inefficient stills this loss may need to be calculated added to monthly dangerous waste total.

The flow diagram below summarizes Example 1, as explained above.

Flow diagram: example of multiple counting exemption for one month's activity



Monthly Counting of Dangerous Waste	
C1:	20 pounds of still bottoms
C2:	10 pounds of still bottoms
C3:	30 pounds of still bottoms
C4:	180 pounds of spent solvent collected
Total:	240 pounds of dangerous waste

Note 1: Without the multiple counting exemption, a generator would have counted 550 pounds instead of 240 pounds.

Note 2: In this example, evaporative loss from the still is zero, with inefficient stills this loss may need to be calculated and added to monthly dangerous waste total.

Example 2

A small shop paints steel objects. They use one five-gallon container to collect all spent cleaning solvent. When the container is full, the spent solvent is transferred into a five-gallon still for recycling.

This recycling process is repeated ten times during the month. Five gallons of spent solvent **converted to pounds** are reported for the month, plus the total still bottoms from all ten still runs.

Example 3

A large auto body paint shop has three different painters. Each generates five gallons of spent solvent from paint mixing and clean-up. When each individual container is full, they combine them in a drum for a total of 15 gallons. The 15 gallons is then distilled on March 15, one batch

at a time, in a still with a five-gallon capacity. The generator should count 15 gallons in column two of the generator category form, not just the five gallons that ran through the still one time.

The auto body paint shop continues to generate and accumulate 20 gallons of additional spent solvent for the rest of the month and a total of 8 pounds of still bottoms. The still bottoms should be counted in column three. The shop should count a total of 20 gallons of spent solvent for the month, whether it was recycled or not. If this additional amount was not recycled by March 31, it should be counted again prior to the next recycling event.

Distillation Start Date	Gallons* collected prior to recycling	Pounds of still bottoms generated
March 15	15	3
March 31	20	5

**For simplicity, numbers are in gallons. Remember to convert to pounds for reporting purposes.*

How to calculate the solvent waste for March:

Largest number in column two: 20 gallons (130.8 pounds)
Total of column three: 8
130.8 + 8 = 138.8 pounds of solvent waste counted

Treatment by Generator (TBG)

The treatment by generator (TBG) provisions allow you to treat your own dangerous waste on site without a dangerous waste treatment, storage, and disposal (TSD) treatment permit. For guidance, see our Focus On: Treatment by Generator[13] publication and WAC 173-303-170(2)(b). See the flow chart, Counting Dangerous Waste Involved in Treatment,[14] for a visual guide.

When to count dangerous waste counted under the TBG allowance

As figure 3 below explains, you must count your dangerous waste before treatment in the TBG unit. This waste counts toward your generator's category. Keep a written log of all dangerous waste treated on site, including the treatment date and amount of each waste treated.

If your dangerous waste enters a central accumulation area before it is moved to a TBG unit, count it prior to accumulation. You do not need to count it again when you move it from the central accumulation area into the TBG unit.

Following treatment:

- Count all dangerous waste remaining after the treatment process.
- If the remaining waste is not dangerous or is directly discharged to POTW, you do not need to count it.

[13] https://fortress.wa.gov/ecy/publications/SummaryPages/2004017.html
[14] See Flow Chart: Counting Dangerous Waste Involved in Treatment section

Figure 3: Dangerous waste counted under TBG

*The domestic sewage exclusion applies when the waste enters the sanitary sewage system.

Counting and Permit-by-Rule (PBR)

The permit-by-rule (PBR) provisions allow on-site treatment of dangerous waste without a written dangerous waste TSD treatment permit, under certain conditions. For PBR provisions to apply, you must only treat your waste in a wastewater treatment unit, elementary neutralization unit, or totally enclosed treatment facility as defined in WAC 173-303-040. For additional guidance, see our Focus on Permit-by-Rule, Treating Waste Under Permit-by-Rule[15] publication and WAC 173-303-802(5).

When dangerous waste is counted under PBR

As figure 4 below shows, wastes managed immediately upon generation in an on-site PBR unit are not counted. The key term in this provision is **immediately**. As soon as the waste is generated, it must directly enter a PBR unit. There cannot be temporary storage, accumulation, or any other type of management of waste between the point of generation and the PBR unit.

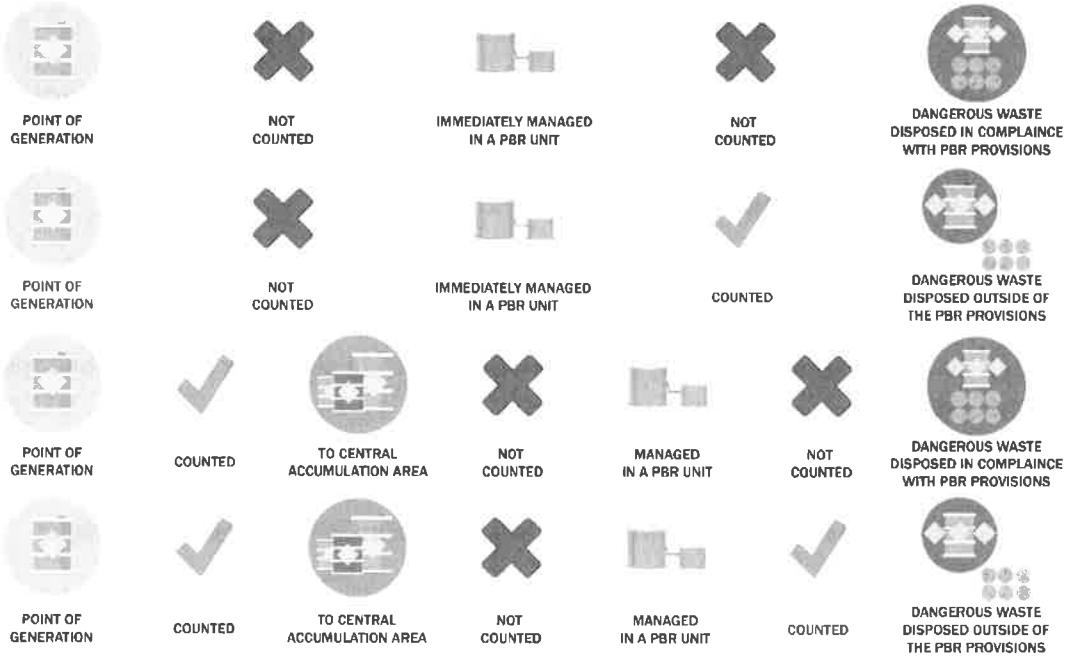
If the waste is stored in a central accumulation area before it's managed in a PBR unit, it must be counted prior to accumulation. When it is moved to a PBR unit, it is not counted again.

Dangerous wastes removed from the PBR unit, such as sludge removed for land disposal, are no longer covered by the PBR provisions and must be counted.

Dangerous waste discharged within the PBR provisions and within the unit's National Pollution Discharge Elimination System (NPDES) discharge permit are not counted.

[15] https://fortress.wa.gov/ecy/publications/summarypages/981000.html

Figure 4: Dangerous waste counted under PBR



Domestic Sewage Exclusion (DSE)

The domestic sewage exclusion (DSE) allows dangerous waste to be discharged to a POTW under specific conditions. Discharge is allowed **only** when:

1. The wastes are treatable at the POTW, and
2. The discharger has a permit or other specific permissions from the POTW that authorizes the discharge of specific wastes.

In most cases the dangerous waste is excluded from reporting only after it enters the sanitary sewer system.

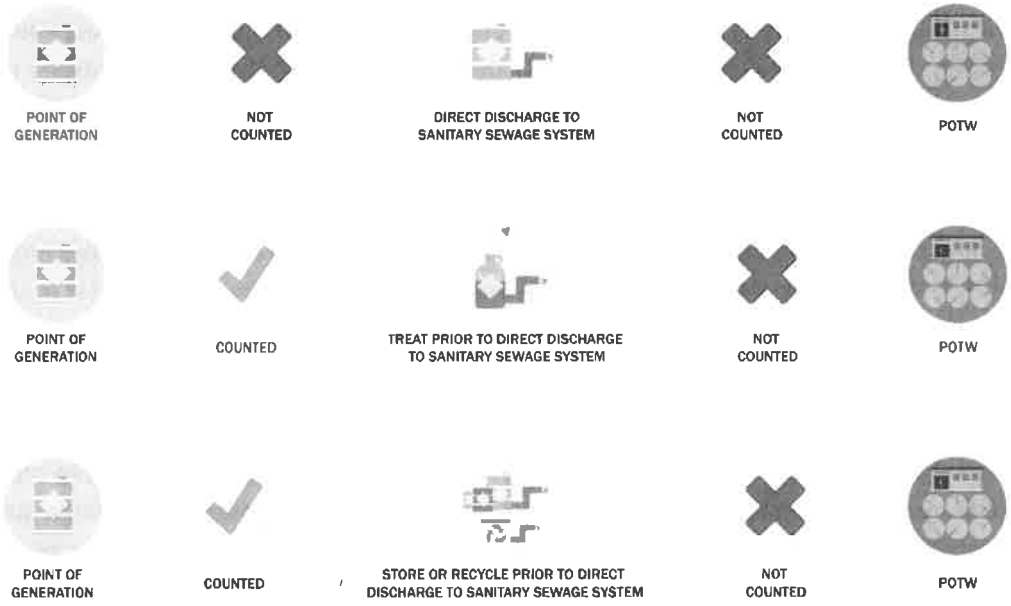
As figure 5 below, shows:

- Dangerous waste is counted when it is treated, stored, or recycled before direct discharge.
- Dangerous waste mixed with domestic sewage is not counted when the waste is being directly discharged into the POTW system.

For additional guidance on the Domestic Sewage Exclusion, refer to our Domestic Sewage Exclusion[16] publication and WAC 173-303-071(3)(a). Figure 5 illustrates when counting is applicable under the DSE.

[16] https://fortress.wa.gov/ecy/publications/summarypages/94136.html

Figure 5: Dangerous waste counted under DSE



Counting and Annual Reporting Requirements

Counting dangerous waste is required for the Dangerous Waste Annual Report. All generators, transporters, TSDs, and recycling facilities with an EPA/State Identification Number are required to complete the annual report for each calendar year in which their ID number is active.

Generators must know if they are a small (SQG), medium (MQG), or large quantity generator (LQG). Each generator must count and record the amount of dangerous waste generated, treated, and recycled each month for the reporting year. The generator's reporting category is defined by the greatest quantity of dangerous waste generated in any one calendar month. For example, if a generator is an SQG for eleven months of a calendar year but becomes an MQG for one month, the generator would fill out the reporting forms as an MQG.

When submitting the Dangerous Waste Annual Report, you need to convert gallons to pounds. One method is to collect a typical gallon of waste and weigh it. Another method is to multiply the liquid's specific gravity by 8.34 (the weight of a gallon water in pounds) to convert gallons of liquid to a weight amount. Refer to the liquid material safety data sheet (MSDS) for its specific gravity; note that if your liquid contains paint or other materials, the specific gravity may differ from the MSDS.

TurboWaste and Dangerous Waste Annual Reporting

We encourage all generators to submit the Dangerous Waste Annual Report electronically using TurboWaste,[17] which reduces paper forms and can save you time.

Dangerous Waste Annual Report Book

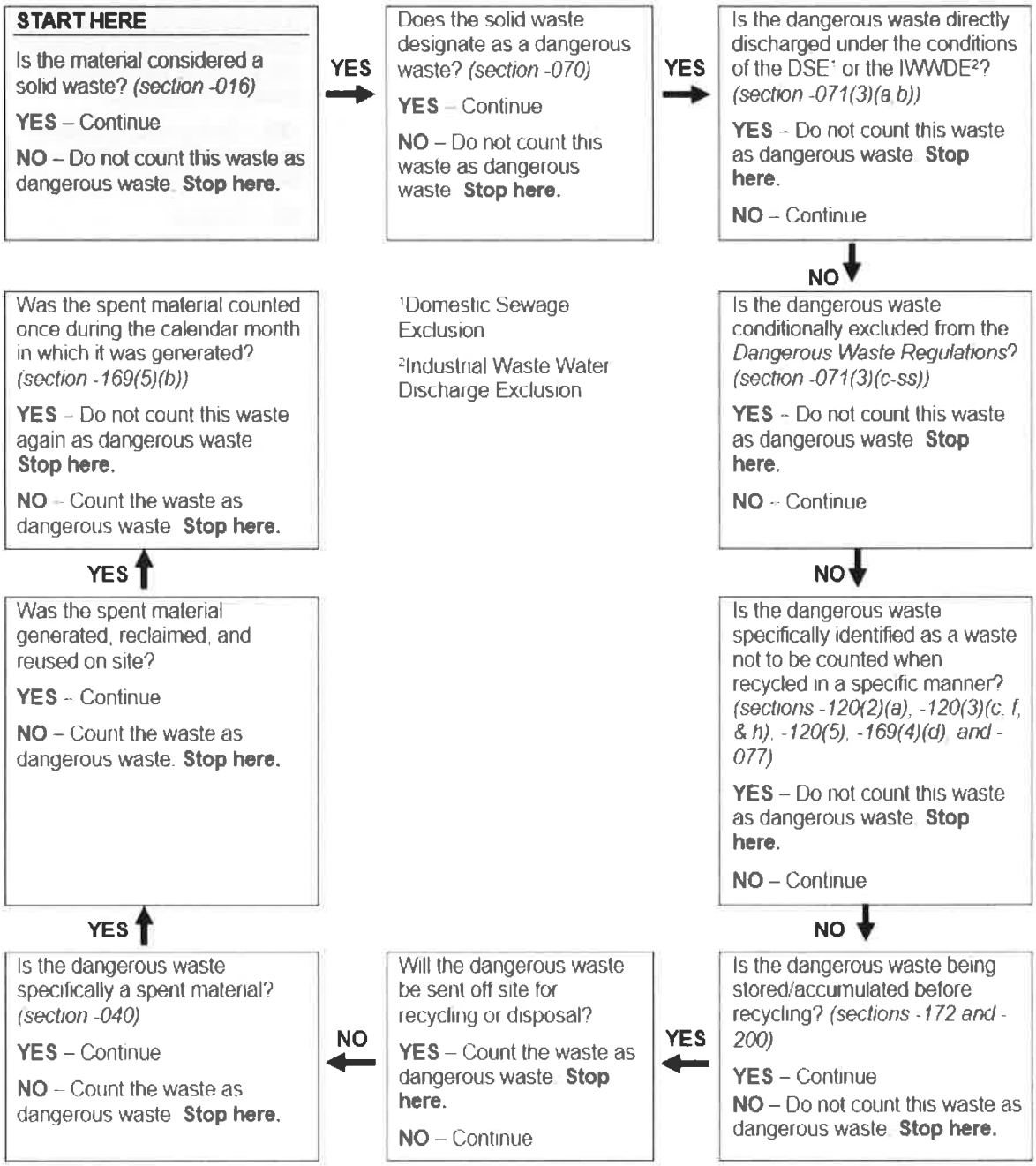
We maintain a dangerous waste annual report user guide[18] to help you select the correct reporting category and determine which forms to fill out.

For more information on annual reporting, including TurboWaste and paper reporting, please visit our Dangerous Waste Reporting Requirements website.[19]

[17] https://ecology.wa.gov/turbowaste
[18] https://fortress.wa.gov/ecy/publications/summarypages/1804036.html
[19] https://ecology.wa.gov/dangerous-waste-reporting

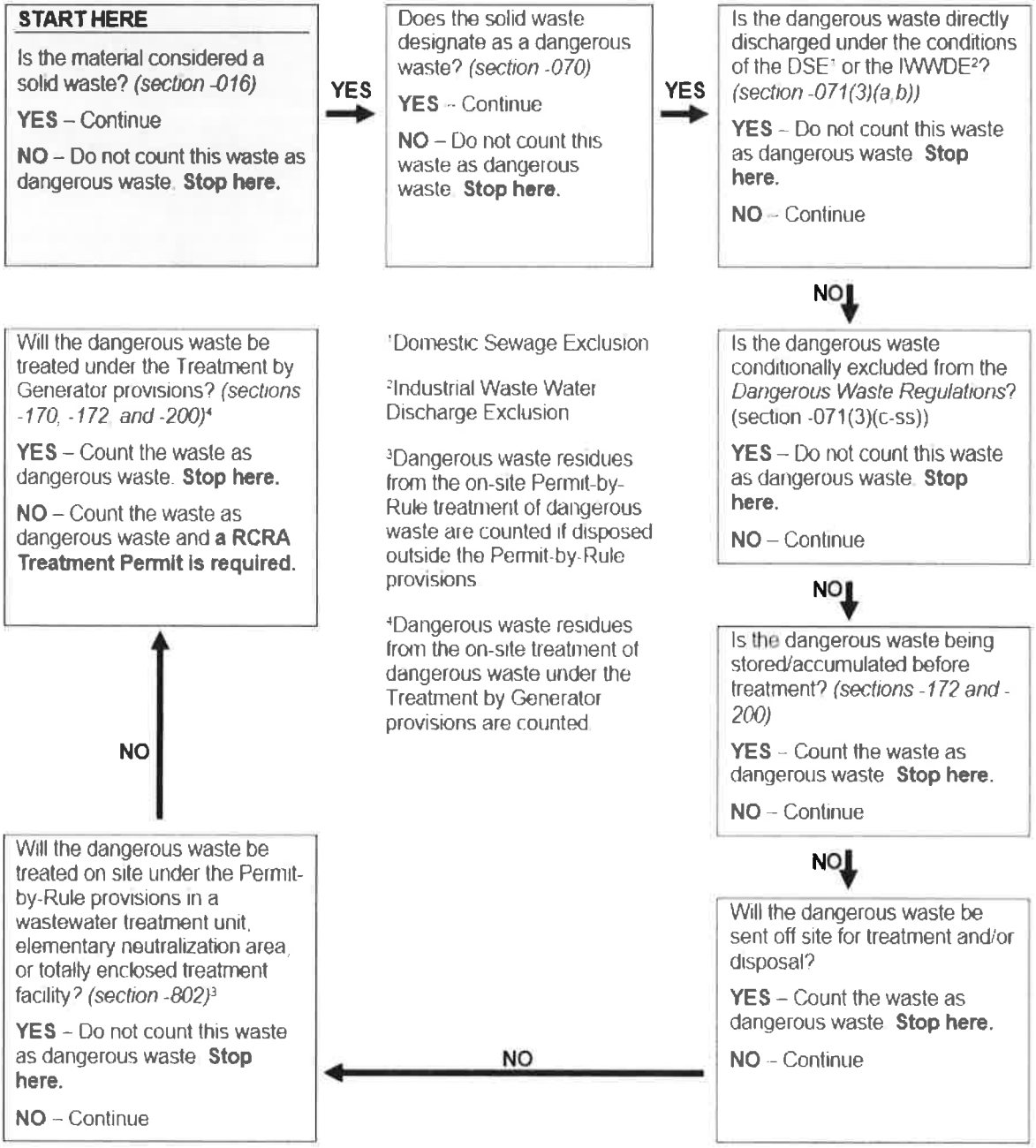
Flow Chart: Counting Dangerous Waste Involved in Recycling

The sections listed after questions refer to Chapter 173-303 WAC. For example, "Section -016" is WAC 173-303-016.



Flow Chart: Counting Dangerous Waste Involved in Treatment

The sections listed after questions refer to Chapter 173-303 WAC. For example, "section -016" is WAC 173-303-016.



Appendix A

The flow chart, Counting Dangerous Waste Involved in Recycling,[20] visually shows that if you generate a solid waste to be recycled that designates as dangerous waste, you must determine whether or not it counts towards your generator category.

The waste does not count if:

- The dangerous waste is directly discharged under the domestic sewage exclusion or industrial waste water discharge exclusion,
- The dangerous waste is conditionally excluded (section -071(3)(c-ss)),
- The dangerous waste is specifically identified as a waste not to be counted when recycled in a specific manner (sections -120(2)(a), -120(3)(c, f, & h), -120(5), -169(4)(d), and -077),
- The dangerous waste is immediately recycled on site (with no storage or accumulation), or
- The dangerous waste is not sent off site for recycling or disposal.

If none of the above apply and the dangerous waste does not meet the definition of a spent material (defined under section -040), count it towards your generator category.

If the spent material was already counted once during the calendar month in which it was generated, do not count the waste again as dangerous waste.

[20] Refer to Flow Chart: Counting Dangerous Waste Involved in Recycling section

Appendix B

The flow chart, Counting Dangerous Waste Involved in Treatment, [21] visually shows that if you generate a solid waste that designates as a dangerous waste to be treated, you must determine whether or not it counts towards your generator category.

The waste does not count if:

- The dangerous waste is directly discharged under the domestic sewage exclusion or industrial waste water discharge exclusion,
- The dangerous waste is conditionally excluded (section -071(3)(c-ss)), or
- The dangerous waste is treated on site under the Permit-by-Rule provisions in a wastewater treatment unit, elementary neutralization unit, or totally enclosed treatment facility (-802(5)).

If you treat designated dangerous waste on site under treatment by generator provisions, it does count as dangerous waste towards your generator category. If you do not meet the treatment by generator provisions, you must obtain a RCRA Treatment Permit to conduct this activity.

Note:

- Dangerous waste residues from on-site Permit-by-Rule treatment of dangerous waste are counted if disposed outside the permit-by-rule provisions.
- Dangerous waste residues from the on-site treatment of dangerous waste under the treatment by generator provisions are counted.

[21] See Flow Chart: Counting Dangerous Waste Involved in Treatment section

Washington Paint Stewardship Program

Each year about 800 million gallons of architectural paint is sold in the United States. Did you know that about 10 percent goes unused and is available for recycling?

Washington's paint stewardship law requires the paint manufacturing industry to develop a financially sustainable and environmentally responsible program to manage postconsumer architectural paint.

The program includes education about buying the right amount of paint, tips for using up remaining paint, and setting up convenient recycling locations throughout the state.

Paint manufacturers established PaintCare, a nonprofit organization, to run paint stewardship programs in states with applicable laws.

PaintCare Products

These products have a fee when you buy them and are accepted for free at drop-off sites:

- Interior and exterior architectural paints: latex, acrylic, water-based, alkyd, oil-based, enamel (including textured coatings)
- Deck coatings, floor paints (including elastomeric)
- Primers, sealers, undercoaters
- Stains
- Shellacs, lacquers, varnishes, urethanes (single component)
- Waterproofing concrete/masonry/wood sealers and repellents (not tar or bitumen-based)
- Metal coatings, rust preventatives
- Field and lawn paints

Leaking, unlabeled, and empty containers are not accepted at drop-off sites.

Non-PaintCare Products

- Paint thinners, mineral spirits, solvents
- Aerosol paints (spray cans)
- Auto and marine paints
- Art and craft paints
- Caulk, epoxies, glues, adhesives
- Paint additives, colorants, tints, resins
- Wood preservatives (containing pesticides)
- Roof patch and repair
- Asphalt, tar and bitumen-based products
- 2-component coatings
- Deck cleaners
- Traffic and road marking paints
- Industrial Maintenance (IM) coatings
- Original Equipment Manufacturer (OEM) (shop application) paints and finishes

For information about recycling and proper disposal of non-PaintCare products, please contact your garbage hauler, local environmental health agency, household hazardous waste program, or public works department.

WA-BREN-1020

paintcare

Recycle with PaintCare

WASHINGTON

Places to Take Leftover Paint

Paint recycling is more convenient with PaintCare. We set up paint drop-off sites throughout the state. To find your nearest drop-off site, use PaintCare's site locator at www.paintcare.org or call our hotline at (855) PAINT09.

How to Recycle

PaintCare sites accept all brands of leftover house paint, stain, and varnish, whether recently used or many years old. Containers must be five gallons or smaller, and some types of paint are not accepted. See back panel for a list of what PaintCare accepts for recycling.

All PaintCare drop-off sites accept up to five gallons of paint per visit. Some sites accept more. Please call sites in advance to make sure they can accept the amount of paint you would like to recycle.

Make sure all containers of paint have lids and original labels, and load them securely in your vehicle. Take them to a drop-off site during their regular business hours. We'll take it from there.

What Happens to the Paint?

PaintCare makes sure that your leftover paint is remixed into recycled paint, used as a fuel, made into other products, or is properly disposed if no other beneficial use for it can be found.

Who Can Use the Program?

Households can bring as much latex or oil-based paint as the site is willing to accept.

To use the PaintCare program for oil-based paint, a business must qualify as an exempt generator under federal and any analogous state hazardous waste generator rules. Please visit www.paintcare.org/VSQG for more information on exempt generator rules. If your business does not qualify as an exempt generator, it will not be able to use the program for oil-based paint, but it can still use the program for latex products.

Large Volume Pickup

If you have at least 200 gallons of paint to recycle at your business or home, ask about our free pickup service. Please visit paintcare org or call for more details or to request an appointment.

PaintCare Fee

PaintCare is funded by a fee paid by paint manufacturers for each can of paint they sell in the state. Manufacturers pass the fee to retailers, who then apply it to the price of paint. The following structure has been proposed, subject to approval by th Washington Department of Ecology. The fee is based on container size:

$ 0.00	Half pint or smaller
$ 0.45	Larger than half pint up to smaller than 1 gallon
$ 0.95	1 gallon up to 2 gallons
$ 1.95	Larger than 2 gallons up to 5 gallons

Not a Deposit

The fee is not a deposit – it is part of the purchase price. The fee is used to fund the costs of running the program, including recycling, public education, staffing, and other expenses.

Contact Us

To learn more or find a drop-off site, please visit www.paintcare.org or call (855) PAINT09.

Bellevue Utilities News

Information about your water, drainage, wastewater and solid waste utility services | MAY/JUNE 2021

Paint Recycling Now Available

In April 1, Washington State launched PaintCare, a new program to recycle paint, stain and varnish. This program is a major step in protecting our local environment and diverting waste from the landfill.

PaintCare will offer drop-off locations throughout Bellevue and Washington State. There is no cost to drop off your paint; program costs are covered by a fee applied to new paint sales. (Please note: paint can only be recycled through participating locations; it is not accepted in your home recycling containers.)

Drop-off sites will accept the following items:

- House paints and primers (latex and oil-based)
- Stains
- Deck and concrete sealers
- Clear finishes (e.g. varnishes, shellac)

Paint must be in the original five-gallon or smaller containers with original label and secure lid.

What happens to the paint? Latex paint can be easily recycled into new paint in a suite of colors and can be used in other products such as landscaping materials and concrete tures. Paint recyclers process and sell recycled latex paint products at paint retailers and reuse stores. Oil-based paint products will be offered for reuse, collected and used as fuel, or will be disposed of as hazardous waste. In its first year, this program is expected to recycle more than 1.3 million gallons of paint!

Visit www.paintcare.org or call (855) 724-6809 to find a participating drop-off location near you!

Safe Medicine Disposal Matters

Taking back your medicines to a pharmacy drop-box or local collection site is a safe, convenient and responsible way to dispose of unused or expired medicines.

Safest disposal solution: take medicines to a secure local dropbox

Unwanted medicines left at home can endanger family members and pets. The Washington Poison Control center reports about half of its calls concern young children poisoned by medicines found at home.

Flushing medicines down the toilet can impact water quality—wastewater treatment plants are not equipped to remove medicines from wastewater. Putting unwanted medicines in the garbage also sends them into our environment.

At home, keep medicines in a locked or secure place and out of reach of children. When shed with medications as prescribed by your doctor, or when medicines expire, please do not flush, trash, share, or continuing storing. **Instead, bring medications to a local secure dropbox.** There is no cost to use the dropbox service.

You can find a list of local dropboxes and more information on types of accepted medicines at www.medproject.org.

Sustainable Summe Landscape Tips

Landscapes and gardens are the biggest source of excess water use in summer. But a beautiful, low-maintenance and water-smart landscape is within reach! Practicing these tips can help.

- **Mulch.** Adding a few inches of good mulch—leftover leaves, bark, or compost— will help keep moisture in and weeds out.
- **Avoid planting new in summer.** New plants need more water to establish roots, and hot weather adds stress. Wait for rainy seasons in spring or fall to save water and give plants the best chance to thrive.
- **Water lawns less.** Lawns only need about 1" of water a week to stay healthy through the dry months. Cut grass higher to give roots more protection from intense summer heat
- **Check irrigation system and timer settings.** Huge water waste—and high bills—can result from improperly-set timers or broken lines. A regular system check can catch these—and make sure your system is watering plants, not pavement.
- **Water with the weather.** Early morning or late evening is best to limit evaporation. If you have an irrigation system, consider installing a rain sensor to automatically adjust to weather patterns.

You can find more sustainable gardening advice at BellevueWA.gov/natural-yard-care. Classes, videos and other resources are available through Cascade Gardener at www.cascadewater.org.

Wash Cars, not Fish!

Time to wash your car? Using a commercial car wash has big environmental benefits.

All of our storm drains lead directly to local streams and lakes. When we wash cars in driveways, streets or parking lots, car chemicals and soap can enter our waterways through storm drains, causing water pollution and harming fish and other wildlife. **Only rain should ever go down our storm drains.**

Commercial car washes help protect our environment by reusing water and sending dirty water to the sewer system for treatment. Result: a clean car, cleaner water—and happier fish! For more tips to protect our stream health, visit BellevueWA.gov/protect-waterways.

Composting Food Scraps Helps Protect Your Sewer

Get started composting with your FREE compost container!

By composting your home's food waste, you help solve two big problems. You're keeping tons of valuable food scraps out of our landfills. AND you're making sure oil and grease don't get into your sewer line through your garbage disposal or sink.

Oil and grease from food scraps form clumps in sewer lines. This can lead to restricted flow and the danger of sewer backups. Repairs on private sewer lines can cost homeowners thousands of dollars.

Composting your food scraps is an environmentally- and sewer-friendly solution. How to get started?

Single-family homes: Put food scraps with yard waste in your green outdoor container. Republic Services offers weekly collection at no extra cost in Bellevue, as well as a free kitchen composter container for your household. Get compost containers by calling 425-452-4762.

Apartment and condo residents: Contact Bellevue Utilities at 425-452-6932 or recycle@bellevuewa.gov to find out if your community is signed up for compost collection service. Communities can receive up to 2 compost carts per garbage container, collected weekly at no extra cost. The City can provide a free small kitchen compost container for individual households.

To learn more about what items can be composted and how, check your recycling guide or visit BellevueWA.gov/recycle-at-home.

Smart Water Meters

Coming Soon to Your Home!

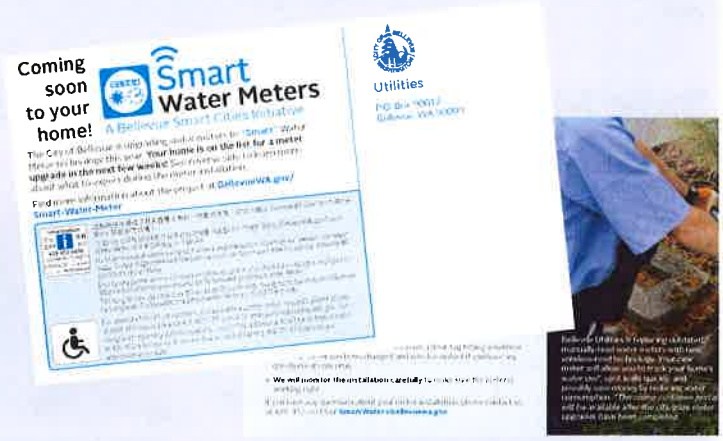
We're hard at work upgrading old water meters to new, more efficient smart meter technology.

By about mid-2022, customers across Bellevue and the Bellevu Utilities service area will have a brand new water meter with new capabilities—including early leak detection and water use data management tools.

Here are some important details to help prepare you for what's coming over the next year:

- Keystone Utility Systems (KUS) is the city's authorized contractor installing meters. You may see their trucks or crews in your neighborhood throughout the next year. Installers will always carry proper identification.
- Look for a mailed notice alerting you of approximately when installers are coming to your neighborhood. You can also track each week's planned upgrades at BellevueWA.gov/Smart-Water-Meter. Customers in apartments, condos and commercial buildings may receive notice through your property managers.
- During the upgrade, your water will be shut off for about 1 minutes. Before performing the work, the installer will knock on your door so you aren't surprised by the disruption. Installers will typically perform work between 8:00 a.m. and 4:30 p.m.

We're here to help answer your questions. Visit the project website at BellevueWA.gov/Smart-Water-Meter for FAQs and regular project status updates. Or contact us at SmartWater@bellevuewa.gov or 425-452-6973 anytime.



Bellevue Utilities News is available online and in other languages at www.bellevuewa.gov/utilities.

可在以下网站用中文查看《贝尔维尤市公用事业新闻》(Bellevue Utilities News): www.bellevuewa.gov/utilities

벨뷰 유틸리티 뉴스 (Bellevue Utilities News)는 www.bellevuewa.gov/utilities 웹사이트에서 한국어로 이용하실 수 있습니다

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General information—425-452-6932
utilities@bellevuewa.gov | utilities.bellevuewa.gov

Customer Service/Billing—425-452-6973

Drinking Water Quality—425-452-6192

24 Hour Emergencies—425-452-7840 (flooding, wate main breaks, no water, sewer overflows, pollutant spil

Republic Services (solid waste service)—425-452-476