

Appendix A.3

Department of Ecology Regulations, Permits, and Certifications

For more information about Ecology's regulations and permits, visit [Ecology's Regulations & Permits webpage](#).¹

Publication Information

This appendix is part of Washington State Department of Ecology's publication number 24-04-040, [Aqueous Film-Forming Foam Collection and Disposal Program: Final Programmatic Environmental Impact Statement](#).²

ADA Accessibility

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Dangerous Waste Permits

Only facilities with a dangerous waste permit may treat other businesses' dangerous waste or store dangerous waste on a long-term basis. This permit is also required to dispose of dangerous waste by burning or burying. These permitted businesses are often called treatment, storage, disposal, or recycling facilities (TSDs or TSDRs).

We are authorized by the U.S. Environmental Protection Agency (EPA) to administer the dangerous waste permitting process in Washington.

Dangerous waste permitting process

Anyone proposing to construct and operate a dangerous waste facility in Washington must comply with state and federal laws and regulations. One of those requirements is to obtain a final status, or Part B permit, from Ecology.

The formal permitting process involves many steps. Years may pass between the time a facility submits a Part B permit application and when it receives a permit, or a permit denial. Most of our dangerous waste permitting work is permit renewals. We rarely get applications for new facilities.

¹ <https://ecology.wa.gov/Regulations-Permits>

² <https://apps.ecology.wa.gov/publications/SummaryPages/2404040.html>

Current permitted facilities

Bonneville Power Administration

This facility is at 5411 NE Highway 99, Vancouver. The Bonneville Power Administration (BPA) dangerous waste management facility is located in a single building on the Ross Complex called the HazMat Building. BPA stores and manages hazardous substances and waste in the HazMat Building. The facility manages wastes generated on-site and from a number of BPA sites in their service area. This service area includes Washington, Idaho, Oregon, Montana, Wyoming, Nevada, Utah, and California.

The HazMat Building accepts and manages a wide range of wastes, including:

- Flammable and combustible wastes.
- Corrosive wastes.
- Reactive wastes.
- Toxic wastes.
- Oxidizers.
- Oily wastes.
- Industrial waste waters.
- Solids and sludges.

This facility's permit expired November 2021.

Clean Earth – Kent

This facility is located at 20245 77th Ave S, Kent. In late 1980, the site was developed as a commercial treatment and storage facility for oily wastewater. Since 1985, the facility has also been used for commercial storage and transfer of material contaminated with polychlorinated biphenyls (PCBs). Other hazardous waste management activities at the facility included the processing and treatment of:

- Acids.
- Caustics.
- Oily wastes.
- Phenols.
- Cyanide wastes.
- Sludges.
- Aqueous metal-bearing wastes.

[Visit the site's cleanup webpage for more information.](https://apps.ecology.wa.gov/cleanupsearch/site/12484)³

Clean Earth – Tacoma

This facility is located at 1701 E. Alexander Ave. in Tacoma. This company offers fuel blending and treatment services for industry. The facility includes a dangerous waste container check-in and storage area, tank systems to store and treat wastes, and waste stabilization and solidification equipment.

³ <https://apps.ecology.wa.gov/cleanupsearch/site/12484>

Wastes stored and treated at the facility include:

- Acid and alkaline wastes.
- Metal-bearing aqueous liquids and sludges.
- Waste oils and oily waste waters.
- Solvent and flammable liquids.
- Cyanide and sulfide bearing wastes.

Emerald Kalama Chemical, LLC

[Emerald Kalama Chemical, LLC](#)⁴ (Emerald) operates an organic chemical manufacturing plant in Kalama. The plant uses toluene to manufacture chemicals for use in food, flavor, fragrance, and the pharmaceutical industry. It produces about 194,000 tons of chemicals each year.

The Emerald Kalama property is a 155-acre parcel in the Kalama Industrial Park, Washington. The property consists of mostly wetland areas between the I-5 and the Columbia River.

Contaminants of concern at this site include:

- Benzene.
- Toluene.
- Biphenyl.
- Bis(2ethylhexyl)phthalate.
- Phenol.
- Benzoic acid.
- Arsenic.
- Volatile organic compounds.
- Semi-volatile organic compounds.
- Diphenyl oxide.

In 1962, Dow Chemical Company constructed the plant to manufacture phenol. In 1971, three former Dow employees purchased the plant and renamed it Kalama Chemical. Kalama Chemical expanded production to specialty chemicals, which are manufactured using intermediates from toluene oxidation. Kalama Chemical sold the plant to Rogers Sugar, a Canadian-based company, in 1990. Ownership subsequently passed to Freedom Chemical in 1994, BFGoodrich in 1998, Noveon in 2001, and Lubrizol in 2004. Emerald Performance Materials, a subsidiary of Sun Capitals, bought the plant and property in 2006. They renamed the plant Emerald Kalama.

- Site investigations found releases of hazardous substances to the soil and groundwater under the plant.
- Releases in the west area next to the Columbia River came from the former tar residue area, transfer sump, and west tank farm.
- Releases in the central area were from the facility's sewer system.
- Contamination in the groundwater flows north toward the wetland and west toward the river.
- An organic chemical manufacturing plant currently operates on 35 acres of the property. The plant uses toluene to manufacture 15 chemicals for food, flavor/fragrance, and pharmaceutical industries. It produces about 194,000 tons of chemicals each year.

⁴ <https://apps.ecology.wa.gov/cleanupsearch/site/3686>

- Site use restrictions called institutional controls are in effect.

Institutional controls can be fences, signs, or restrictions on how the property is used. For instance, an institutional control may prohibit installing drinking water wells or disturbing a protective cap that isolates contamination. These restrictions keep the contamination contained and keep people from being exposed to the contamination. The controls are usually listed in environmental covenants recorded with the county.

Periodic reviews are required when institutional controls are required at a site. Ecology conducts reviews to make sure the controls remain in effect, and the cleanup still protects human health and the environment. Periodic reviews are conducted every five years.

For more information, visit [Ecology's cleanup webpage for Emerald Kalama Chemical](#).⁵

Emerald Services – Tacoma

This facility is located at 1825 Alexander Ave. in Tacoma. Emerald Services has several dangerous waste operations at this facility. The company recycles waste solvents and glycol to reuse and sell. Emerald Services also blends contaminated oils, paint-related wastes, ink formulations, and other organic wastes into fuels. These blended fuels are shipped out of state to a permitted hazardous waste industrial facility, which destroys the waste and uses the energy produced for industrial processes.

Emerald Services also accepts a limited amount of dangerous waste not processed at the Tacoma facility. It stores these wastes in containers and tanks, then ships them to another facility for processing or disposal.

The Dangerous Waste Permit was modified August 2022. For more information, contact Ecology at 360-407-6700.

[View Emerald's Permits and Cleanup Reporting](#).⁶

Hanford

Hanford is a federal facility operated by the Department of Energy (Energy). It has several different treatment and disposal facilities, all operated under one permit. That permit is for the remediation of the area. This facility does not accept commercial waste. This is considered a superfund cleanup site. Cleanup framework began in 2013.

The site includes 177 underground storage tanks, with each holding as much as a million gallons of radioactive and toxic chemical waste. About one-third of that waste is liquid, another third is crystallized, and the final third is thick sludge. Each type presents its own challenge and requires specialized, often previously non-existent tools. All work is performed remotely, and electronic equipment wears out fairly quickly due to radiation exposure.

⁵ <https://apps.ecology.wa.gov/cleanupsearch/site/3686>

⁶ <https://apps.ecology.wa.gov/cleanupsearch/site/12490>

Energy manages Hanford and hires contractors to do cleanup work. Ecology and EPA oversee cleanup activities to ensure that federal and state environmental laws are followed. All three agencies have agreed on cleanup milestones intended to ensure that the cleanup is thorough and protective of people and the environment. For this to occur in a timely manner and on a predictable schedule, Hanford needs adequate and stable funding.

Keyport Naval Facility

This facility is located on Naval Base Kitsap – Keyport. The Navy generates dangerous waste while testing, evaluating, and refurbishing undersea warfare systems and components. The facility also accepts wastes from other U.S. military bases. The Navy manages dangerous wastes in a single building on the base until it sends wastes off-site for treatment, recycling, or disposal. The facility does not incinerate or dispose of any dangerous wastes on the base. The facility accepts and manages a wide range of wastes including:

- Flammable and combustible wastes.
- Corrosive wastes.
- Reactive wastes.
- Toxic wastes.
- Oxidizers.
- Oily wastes.
- Industrial waste waters.
- Solids and sludges.

For more information, view the [cleanup site webpage](#).⁷

PermaFix Northwest

This facility is a commercial TSD located at 2025 Battelle Blvd. in Richland. It is a mixed waste facility, accepting certain types of dangerous and low-level radioactive wastes.

For information, contact John Temple at john.temple@ecy.wa.gov or 509-372-7929.

Phillips 66 Ferndale Refinery

This refinery is located at 3901 Unick Road in Ferndale, along the Strait of Georgia between Cherry Point and Sandy Point. The main source of crude oil coming to this facility historically comes from Alaska's Prudhoe Bay oil field, delivered by tankers, and Canadian crude oil, delivered by pipeline.

The refinery separates crude oil for further processing and blending into a variety of petroleum products:

- Gasoline
- Diesel oil
- Jet fuel
- Liquid petroleum gas
- Residual fuel oil
- Marine bunker fuel oil

⁷ <https://apps.ecology.wa.gov/cleanupsearch/site/127>

Puget Sound Naval Shipyard

This federal facility is at 1400 Farragut Avenue in Bremerton. The Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF) is a United States Navy shipyard covering 179 acres that only serves the United States Navy. It does not accept waste from any generator outside the naval shipyard.

This facility has operated consistently since it started in 1891. It manages mixed waste (dangerous waste with a radioactive component).

Certification for Incinerator and Landfill Operators

Chapter 70.95D RCW, Solid Waste Incinerator and Landfill Operators requires that landfill and incinerator operators and inspectors be certified through Ecology. Learn more on Ecology's [certification for incinerator and landfill operators webpage](#).⁸

For information on certification requirements and procedures, see the [Regulatory Handbook at the Office of Regulatory Innovation and Assistance](#).⁹

Who needs to be certified?

- Landfill and incinerator operators
- Owner or operator certification is required for to operate the following facilities in Washington:
 - Solid waste incinerators (excluding hog fuel burners and crematoria facilities)
 - Municipal waste landfills
 - Special incinerator ash landfills or monofills
 - Inert waste and demolition waste landfills
 - All limited purpose solid waste landfills such as wood waste landfills

Landfill and incinerator inspector

Inspector certification is required for public employees who inspect and determine compliance of solid waste landfill or incinerator operations. These public employees must successfully complete the same training and examination process as landfill and incinerator operators. Inspectors must also receive training relevant to inspection procedures.

Operator and inspector certifications are valid for three years.

⁸ <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Certification-for-incinerator-landfill-operator>

⁹ https://www.oria.wa.gov/site/alias__oria/403/regulatory-handbook.aspx

Solid waste facility permits

As directed by RCW 70.95.060, we adopt standards for solid waste facilities, while local jurisdictional health departments (county, regional, or local health departments or districts) have primary oversight of solid waste facilities and issue permits and enforce the standards.

Under RCW 70.95.160, health departments must adopt regulations that are at least as stringent as state standards, or may adopt more stringent standards. Because of this, it is important for any person or business planning to manage solid waste to first contact the health department where the facility is located to discuss local permit application standards and fees.

Permitting process

An applicant can obtain a permit application from its local health department for the county where the facility will be located. You can find procedures for applying for a solid waste facility permit in WAC 173-350-710 (except for municipal solid waste landfills). Use the permit application form created by Ecology found on the solid waste facility forms page.

Besides filling out the form, a complete permit application will typically include design, operating, environmental monitoring, and closure plans. Contact your local health department to see what permit fees to submit with permit applications.

General permit application requirements are found in WAC 173-350-715. These include a list of attachments such as vicinity maps, engineering plans, and evidence of compliance with the State Environmental Policy Act. In addition to the general permit application requirements, applicants must include attachments such as operating plans, closure plans, and in some cases, provide financial assurance. Applicants should thoroughly review the additional requirements for each solid waste management activity planned for the site. These are listed in Chapter 173-350 WAC, Solid Waste Handling Standards. Procedures for applying for a municipal solid waste landfill are found in WAC 173-351-720 and procedures for special incinerator ash landfills are found in WAC 173-306-310.

When a health department issues a solid waste permit, it must submit a copy of the permit to us within seven days. We then have 30 days to review the permit. If we believe there was a problem or error in issuing the permit, the agency can appeal its issuance to the Pollution Control Hearings Board as described in Chapter 43.21B RCW.

Solid waste facilities requiring permits

- Chapter 173-351 WAC, Criteria for Municipal Solid Waste Landfills, contains permit requirements for municipal solid waste landfills.
- Chapter 173-350 WAC, Solid Waste Handling Standards, contains permit requirements for:
 - Anaerobic digesters.
 - Limited purpose landfills.
 - Inert waste landfills.
 - Transfer stations and drop boxes.
 - Compost facilities.

- Other organic material handling activities.
 - Land application sites.
 - Pile storage and treatment.
 - Surface impoundments.
 - Tanks.
 - Waste tire storage facilities.
 - Moderate risk waste facilities.
 - Recycling and material recovery facilities.
 - Energy recovery facilities and incinerators.
- Chapter 173-306 WAC, Special Incinerator Ash Management Standards, applies to municipal solid waste incinerator ash monofills.

Exemptions from solid waste permitting

Ecology has direct oversight for permit-exempt facilities (in contrast to permitted facilities, which are regulated by jurisdictional health departments).

Under Chapter 173-350 WAC, Solid Waste Handling Standards, Ecology can grant a beneficial use exemption from permit requirements. The process and required application forms can be found at Beneficial Use Determinations.

Chapter 173-350 WAC, Solid Waste Handling Standards, specifies that certain solid waste facilities are exempt from solid waste permitting if they meet the requirements and operating procedures identified in the rule. These facilities include recycling, material recovery, composting, piles of waste materials, and some moderate risk waste handling activities.

Consult Chapter 173-350 WAC to see whether your facility meets the conditions for the exemption, or contact Ecology staff. To assist facilities, Ecology has developed [Form ECY 070-493 — Notification of Exemption from a Solid Waste Permit](#).¹⁰

State-issued solid waste permits, licenses, and certifications

Some types of solid waste permitting are handled by the state instead of local health departments:

- Special incinerator ash monofills — contact your local Ecology office
- Solid Waste Incinerator and Landfill Operator (and Inspector) Certification
- Treatment, processing, storage, and use of biosolids
- Waste tire carrier and storage licensing requirements

State Solid and Hazardous Waste Plan

[View the state solid and hazardous waste plan](#).¹¹

¹⁰ <https://apps.ecology.wa.gov/publications/SummaryPages/ECY070493.html>

¹¹ <https://ecology.wa.gov/Regulations-Permits/Plans-policies/Washington-state-waste-plan>

Dangerous Waste Facilities

This list includes facilities that may process, transport, transfer, or store used oil or dangerous waste. Some are commercially permitted. The table below includes the facility's name, link to their website, type of dangerous waste they handle, and their facility ID number.

You can use the facility ID numbers to find a facility in [EPA's ECHO \(Enforcement and Compliance History Online\) database](#).¹² ECHO provides more information about a facility's location, reports, and compliance status.

Table A.3-1: Dangerous waste transfer, treatment, storage, and disposal facilities in Washington State.

Region	Facility name (link to website)	Facility type	City	Facility ID
E	Emerald Services, Inc. ¹³	Dangerous waste and used oil transfer facility	Spokane	WAH000042987
E	Thermo Fluids - Spokane Valley ¹⁴	Used oil processor	Spokane Valley	WAH000046471
E	Safety Kleen Systems, Inc. ¹⁵	Dangerous waste and used oil transfer facility	Pasco	WAH000042595
E	Safety Kleen Systems, Inc. ¹⁶	Dangerous waste and used oil transfer facility	Spokane Valley	WAH000025242
NW	Emerald Services, Inc. ¹³	Used oil processor	Seattle	WAD058367152
NW	Emerald Services, Inc. ¹³	Dangerous waste and used oil transfer facility	Seattle	WAD009492877
NW	Marine Vacuum Services ¹⁷	Used oil processor	Seattle	WAD980974521
NW	Venoil ¹⁸	Used oil transportation and storage	Anacortes	WAD980987622

¹² <https://echo.epa.gov/>

¹³ <https://www.emeraldrenews.com/>

¹⁴ <https://www.thermofluids.com/where>

¹⁵ <https://www.safety-kleen.com/location/pasco-wa>

¹⁶ <https://www.safety-kleen.com/location/spokane-wa>

¹⁷ <https://marinevacuum.com/>

¹⁸ <http://www.orrcorecycles.com/>

Region	Facility name (link to website)	Facility type	City	Facility ID
NW	Clean Harbors Environmental Services ¹⁹	Dangerous waste and used oil transfer facility	Kent	WAH000035842
NW	Clean Earth - Kent ²⁰	Commercial permitted dangerous waste storage (only TSCA)*	Kent	—
NW	Thermo Fluids - Sumner ²¹	Used oil processor	Sumner	WAD988475323
NW	Ingenium ²²	Dangerous waste and used oil transfer facility	Kent	WAH000029517
SW	Emerald Services, Inc. ¹³	Used oil and spent antifreeze transportation and storage	Vancouver	WAD068794387
SW	Emerald Services, Inc. ¹³	Commercial permitted dangerous waste storage and treatment; used oil re-refinery	Tacoma	WAD981769110
SW	Perma-Fix Northwest ²³	Low-level radioactive and mixed waste	Richland	WAR000010355
SW	Petroleum Reclaiming Services ²⁴	Used oil processor	Tacoma	WAD980511729
SW	Clean Earth - Tacoma ²⁰	Commercial permitted dangerous waste storage and treatment	Tacoma	WAD020257
SW	Emerald Services, Inc. ¹³	Used oil and spent antifreeze transportation and storage	Vancouver	WAD068794387

¹⁹ <https://www.cleanharbors.com/location/kent-field-services>

²⁰ <https://www.cleanearthinc.com/>

²¹ <https://www.thermofluids.com/where>

²² <https://www.pureingenium.com/>

²³ <http://perma-fix.com/>

²⁴ <http://www.prplant.net/>

Region	Facility name (link to website)	Facility type	City	Facility ID
SW	Perma-Fix Northwest ²³	Low-level radioactive and mixed waste	Richland	WAR000010355
SW	Petroleum Reclaiming Services ²⁴	Used oil processor	Tacoma	WAD980511729
SW	Clean Earth - Tacoma ²⁰	Commercial permitted dangerous waste storage and treatment	Tacoma	WAD020257945

Source: Dangerous waste facilities, Ecology’s [hazardous waste service providers webpage](#).²⁵
 Accessed June 20, 2022.

²⁵ <https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/dangerous-waste-guidance/dispose-recycle-or-treat/hazardous-waste-service-provider>