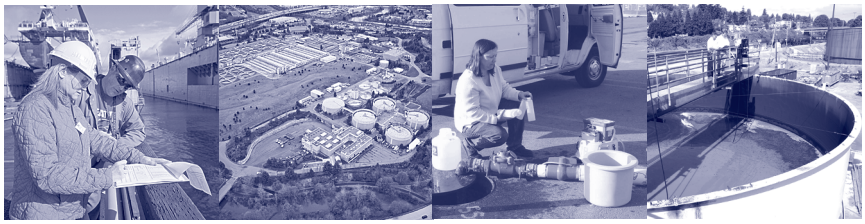
Fact Sheet: Discharging industrial wastewater to the King County sewer system

The King County Industrial Waste Program (KCIW)



King County
Department of
Natural Resources and Parks
Wastewater Treatment Division
Industrial Waste Program

January 2015

MISSION STATEMENT

The mission of the Industrial Waste Program is to protect the environment, public health, biosolids quality, and King County's regional sewerage systems. We work cooperatively with our customers as we regulate industrial discharges, provide technical assistance, and monitor the regional sewerage system.

Discharging industrial wastewater - the clean water connection

When businesses properly dispose of wastewater, the Puget Sound region benefits from cleaner water and reduced wastewater treatment costs. KCIW's goal is to help businesses, government entities and other facilities that discharge industrial wastewater comply with the regulations while conducting day-to-day activities.

This fact sheet provides general guidelines for discharging industrial wastewater into the sanitary sewer system in the King County sewer service area.

The King County sewer system

King County protects water quality and public health in the central Puget Sound region by providing high quality and effective treatment to wastewater collected from local sewer agencies. The county's Wastewater Treatment Division serves about 1.5 million people within a 420-square-mile service area, which includes most urban areas of King County and parts of south Snohomish County and northeast Pierce County.

About KCIW

KCIW administers the county's industrial waste regulations for businesses, government entities and other facilities that discharge industrial wastewater to King County's sewage treatment plants. Program activities include administration of industrial wastewater discharge permits, inspections, enforcement, sample collection to determine compliance, and collection of surcharge and monitoring fees. The program also conducts monitoring throughout the King County service area to trace discharges that could harm workers or disrupt treatment plant operations.

Local water and sewer agencies in the King County service area

King County provides wholesale wastewater treatment services to cities and local sewer utilities in King, Snohomish, and Pierce counties. These local agencies own and operate independent collection systems, which include pipelines and pump stations to collect and carry wastewater flows in their service areas to King County's regional system for treatment and disposal.

Facilities should call the applicable local agency to make billing arrangements for industrial wastewater discharges to the sanitary sewer systems. Should facilities need to locate their local agency, their water and sewer billings will include the agency and contact information.

Guidelines for discharging industrial wastewater to the King County sewer system ▶

INDEX

Guidelines for discharging industrial wastewater to the King County sewer system
Overview:
- Obtaining approval to discharge
- Determining whether a business or facility is considered a discharger of industrial wastewater
- Advance notice needed to obtain approval to discharge industrial wastewater
- Types of industrial wastewater discharge approvals
- Costs of discharging industrial wastewater to King County

Industrial wastewater discharge limits
- National categorical pretreatment standards
- King County local discharge limits
- Prohibited discharges

Hazardous waste
Monitoring
KCIW's surcharge program
Industrial waste sample collection
Pretreatment regulations for industrial wastewater dischargers
- Federal
- State
- Local
- Consequences for those discharging industrial wastewater without following the law

KCIW fees
- Discharge approval fees
- Monitoring fees
- Surcharge program
- Post-violation inspection and monitoring fees

Contacting KCIW
Resources

Guidelines for discharging industrial wastewater to the King County sewer system

Overview:

Obtaining approval to discharge

Prior to discharging industrial wastewater to the sewer, all dischargers that generate and dispose of industrial wastewater should contact KCIW, which may direct potential dischargers to apply to the program for approval to discharge industrial wastewater.

Determining whether a business or facility is considered a discharger of industrial wastewater

Wastewater sent to the King County sewer system during a facility's manufacturing or production processes such as cleaning, rinsing, or groundwater remediation is most likely industrial wastewater and is subject to local, state, and federal regulations. This wastewater differs from residential household wastewater that includes domestic sewage from toilets, showers, washing machines, and other activities.

Advance notice needed to obtain approval to discharge industrial wastewater

The amount of time it takes to obtain approval to discharge depends upon the type and amount of wastewater a company discharges to the sewer. For federally regulated discharges, facilities must apply for a permit 90 days prior to discharge. King County-regulated discharges that are greater than 25,000 gallons per day must apply for a permit 60 days prior to discharge; smaller dischargers should apply at least 30 days prior to discharge.

Types of industrial wastewater discharge approvals

KCIW issues several types of discharge approvals and works with dischargers to determine which type of approval is needed. Approval types include industrial wastewater discharge permits, discharge authorizations, discharge letters, and verbal approvals. The type of approval is determined by the volume discharged, the nature of the business, the characteristics of the wastewater, and the potential risk to the wastewater treatment plant. An industrial wastewater discharge permit is normally required if a facility discharges more than 25,000 gallons per day or is a federally regulated industry.

The program offers specialized approvals for some types of discharges, such as commercial septage, construction site dewatering, contaminated stormwater, and dental practice wastewater. KCIW also maintains guidelines for the biotechnology industry and for hospital waste. The program offers

fact sheets and guidance on specialized discharges. (See Resources, page 6.)

Costs of discharging industrial wastewater to King County

KCIW charges fees for the issuance and renewal of wastewater discharge approvals. There may also be charges for compliance monitoring and surcharges for high-strength wastes. (See Fees, page 5.)

Industrial wastewater discharge limits

A facility in King County discharging industrial wastewater to the county sewer system may be subject to restrictions, or discharge limits, placed on substances in the three categories that follow. Applicable discharge limits are established in the industrial wastewater discharge approval documents that facilities receive from KCIW.

1. National categorical pretreatment standards

The federal government has established discharge limits for specific activities. The following is a partial list of industries considered categorical dischargers, which require industrial wastewater discharge permits to discharge, regardless of discharge volumes that might otherwise allow other types of discharge approvals.

Partial list of industries considered categorical dischargers

Aluminum forming	Electroplating	Pesticide
Battery	Inorganic chemical	Petroleum refining
Centralized waste treatment	Iron/steel	Porcelain enameling
Circuit board	Leather tanning finishing	Pulp/paper mills
Coil coating	Metal finishing	Wood preserving
Copper forming	Metal foundries	
Electrical/ electronic components	Nonferrous metal	

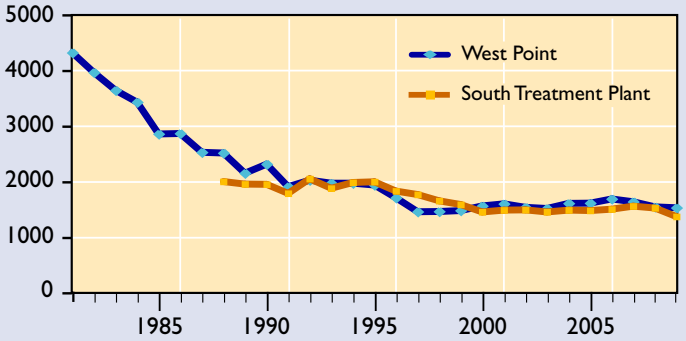
IMPROVING WATER QUALITY AND BIOSOLIDS

Biosolids are nutrient-rich organic solids produced by wastewater treatment processes. King County biosolids are used to enrich soil for agriculture, forestry, and landscaping. The county's goal is to produce the most contaminant-free biosolids practically achievable.

Pretreatment of wastewater has contributed to a decline in heavy metals in wastewater received at King County's West Point and South Treatment Plants as indicated by the low levels of these metals in their biosolids:

King County Department of Natural Resources and Parks
West Point/South Wastewater Treatment Plants

Biosolids Quality - Total Metals*



*Total Metals = the sum of the concentrations of cadmium, chrome, copper, lead, mercury, nickel and zinc, (milligrams/kilogram dry weight)

The quality of both King County treatment plants' biosolids remains well below the U.S. Environmental Protection Agency's exceptional quality standards (federal rule 40 CFR Part 503) for heavy metals.

2. King County local discharge limits

King County establishes local limits to ensure that industrial discharges do not damage the county's treatment plants and the surrounding environment. The following pollutants are subject to local limits, which apply to all facilities that discharge industrial wastewater to King County's sewer system. For the numerical limits and additional information view the Internet pages at: **www.kingcounty.gov/industrialwaste** or contact the program.

- Metals and cyanide
- Fats, oils, and grease (FOG)
- Corrosive substances (pH)

- Flammable or explosive materials
- Organic compounds
- Hydrogen sulfide
- Solids and food waste
- High temperature
- Discharges from groundwater remediation sites with petroleum–contaminated soils

Additional information about discharge limits is posted on KCIW's Internet pages and available by request from the program.

3. Prohibited discharges

Certain wastewater discharges are prohibited for all industrial facilities that discharge to the county sewer system because of the potential hazards these discharges create.

General prohibitions

These are standards that prohibit the discharge of wastes that pass through or interfere with publically owned treatment works operations (such as wastewater treatment plants).

Specific prohibitions

There are specific prohibitions of the discharge from all nondomestic sources of certain types of wastes that include those that:

- create a fire or explosion hazard in the collection system or treatment plant
- are corrosive
- are solid or viscous pollutants in amounts that will obstruct the flow in the collection system and treatment plant
- are high temperature
- are solids or food wastes capable of settling that can restrict or block flow in sewer lines?

NOTE: Consult KCIW for a complete and detailed description of these prohibitions before discharging. (See Contacting KCIW, page 6.)

Hazardous waste

Hazardous waste is a federal and state designation for waste material that is toxic, flammable, corrosive, or reactive. This kind of waste requires special handling and treatment at a licensed treatment, storage, disposal facility. Hazardous waste can be discharged to the sewer system only with verbal or written authorization from KCIW.

For information on how to manage hazardous waste, contact the Local Hazardous Waste Management Program in King County (see Resources, page 6) which operates services for businesses that are small quantity generators including disposal and recycling information, and technical, financial, and recognition assistance.

Monitoring

Regulations require KCIW to conduct routine monitoring of companies and facilities that have industrial wastewater discharge permits at least twice a year.

Working with customers

KCIW staff works with businesses and other facilities to help them identify and employ pollution prevention practices. The program also provides technical information and program updates to customers through periodic mailings, workshops, a newsletter, Internet pages (**www.kingcounty.gov/industrialwaste**) and fact sheets.

The program encourages customer contact whether in person or by phone and e-mail. (See Contacting KCIW, page 6.)

KCIW's Industrial Waste Advisory Committee has met since 2000 to exchange ideas about the program among representatives of industrial wastewater dischargers, sewer agencies, environmental groups, and KCIW staff.

KCIW's surcharge program

The Surcharge Program charges industrial wastewater dischargers an additional fee to pay for the costs of treating this high-strength wastewater. Industries that are typically subject to surcharge fees include: bakeries, dairy products, meat and fish processing, soft drink bottlers, breweries and wineries, other food processing, chemical toilet waste, commercial laundries, and tanker truck cleaning. (See Fees, page 5.)

Industrial waste sample collection

Prior to discharging industrial wastewater to the sewer system, facilities may need to have a representative sample of wastewater analyzed and the results presented to KCIW before obtaining discharge approval. King County does not conduct sampling for discharge approvals and wastewater characterization. Contact the program for guidance on approved sampling and analysis methods.

Pretreatment regulations for industrial wastewater dischargers

Operations discharging process wastewater to a publically owned treatment works, such as a county wastewater treatment plant, have specific responsibilities that are defined in the federal Clean Water Act and its associated regulations.

Federal regulations

- Federal pretreatment regulations in Title 40 of the Code of Federal Regulations
- U.S. EPA Industrial Water Pollution Controls: Effluent Guidelines

State regulations

- Revised Code of Washington (RCW) - Chapter 90.48 - Water pollution control
- Washington Administrative Code (WAC) - Chapter 173-208 - Grant of authority sewerage systems
- Washington Administrative Code (WAC) - Chapter 173-303 WAC - Dangerous waste regulations

Local regulations

- King County Code - Title 28 Sections 28.81, 28.82, and 28.84 establish the fees, rules, and regulations for the disposal of industrial waste into the sewerage system.
- King County Public Rules - Classification PUT 8 (Surface Water Management and Wastewater Treatment), Public Rules PUT 8-12 through 8-16 and 8-22 relating to such subjects as the Industrial Waste Enforcement Response Plan, local discharge limits, construction dewatering, discharge of contaminated groundwater to the sewer, discharge of cooling water to the sewer, and acceptance of hauled waste at the county's treatment plants.

KCIW's Rewards and Recognition Program

Every year, King County recognizes significant industrial users of the sewer system that have maintained excellent records of compliance with the county's industrial waste discharge regulations for the previous calendar year. Recipients may receive Commitment-to-Compliance, Gold and Silver awards. Winners of the EnvirOvation Award, given for excellence in pretreatment, are eligible to be nominated for King County's highest environmental honor, the Green Globe Award, as Leaders in Industrial Waste Reduction. By following King County's industrial pretreatment regulations, facilities are helping protect human health, water quality, and the wastewater system.

Consequences for those discharging industrial wastewater without following the law

Managing wastewater properly is good for the water, the environment, and community health - and for businesses within the community. KCIW conducts enforcement activities for polluters as a deterrent to the high costs of polluting.

Facilities or individuals that illegally discharge substances to the King County sewer system must pay for any damages and may be fined up to $10,000 per day per violation. Companies or facilities may also be charged for increased monitoring of their discharges and may be required to install upgraded equipment. Any business or facility receiving a fine will have its name and polluting activities published and prominently displayed in an advertisement in the King County newspaper with the highest distribution.

KCIW fees

KCIW reviews fees annually with the goal of recovering what it costs to operate the fee programs. A KCIW flier and a current fee schedule are available with more information on fees. The program posts current fees on its Internet pages. (See Resources, page 6.)

Discharge approval fees

There are fees associated with the issuance and renewal of each type of discharge approval. Fees are structured to cover the costs of drafting and issuing approvals. These fees are charged over and above the base sewer fees charged by local sewer agencies or monitoring charges by King County.

Monitoring fees

King County conducts routine monitoring of companies that have industrial wastewater discharge permits. These companies are charged an additional fee depending on what pollutants are present in the wastewater and the volume of the discharge. This fee covers the costs associated with the management of the permit, sampling, and analysis of the wastewater. These charges are in addition to the base sewer rate charged by the local sewer agency and are billed monthly as part of a facility's sewer bill.

Surcharge program

KCIW's surcharge program charges facilities an additional fee to pay for the costs of treating high-strength wastewater having total suspended solids (TSS) in excess of 400 milligrams per liter (mg/L) (equivalent to parts per million) or a biological oxygen demand (BOD) greater than 300 mg/L.

There are generally no limits for TSS or BOD unless a facility plans to discharge quantities that might adversely affect the sewage treatment facility, but these facilities are subject to all other discharge limits.

The surcharge or high-strength fee is based on the volume of water discharged and the amount of TSS and BOD in the wastewater. King County monitors the waste strength on a regular basis.

Post-violation inspection and monitoring fees

These fees apply only to companies that violate pretreatment permit requirements, and recover the costs associated with the violation.

Contacting KCIW:

King County Industrial Waste Program
201 S. Jackson St., Room 513
Seattle, WA 98104-3855
Ph: 206-477-5300 or TTY: 711
Fax: 206-263-3001
info.kciw@kingcounty.gov

For online directions and a link to a map of the office location, go to any KCIW Internet page using the easy link below.

Easy link: **www.kingcounty.gov/industrialwaste**

Use this easy link and follow the menu on our main Internet page to reach all KCIW Internet pages.

Resources

A. Downloadable forms and instructions:

The program provides downloadable forms on its Internet site, including the program's Wastewater Discharge Permit Application, the Construction Dewatering Request form, the Septage Acceptance Application, the Supplemental Application for Discharge of Contaminated Stormwater, the Dental Wastewater Discharge Permit Application, industrial wastewater discharge self-monitoring report forms, and the Delegation of Signatory Authority Form.

To access these forms online, use the ***easy link*** above. Forms may also be requested by contacting the KCIW program. (See Contacting KCIW, above.)

B. KCIW fact sheets:

Note that the program posts all of its fact sheets on its Internet pages.

- Construction Dewatering: How to get permission to discharge to the King County sewer system
- Discharging Contaminated Stormwater into the King County Sewer System
- Discharging Dental Wastewater into the King County Sewer System
- Oil/Water Separator Fact Sheet
- Sending Commercial/Non-domestic Septage to King County

C. KCIW fees:

This Internet page includes a downloadable copy of a KCIW Fees flier: **www.kingcounty.gov/environment/wastewater/IndustrialWaste/Fees.aspx**

Or use ***easy link*** above.

D. Emergencies and flood planning:

Spill reporting:

Hazardous spills: call 911

Spills or potential spills to the sanitary sewer or combined sewer:

King County Industrial Waste Program: 206-477-5300

Mon.– Fri. 8 a.m. to 5 p.m.

When the KCIW office is closed, facilities should contact the King County wastewater treatment plant that receives their discharge:

South Treatment Plant:
206-684-2404
(Call number below if no answer)

West Point Treatment Plant:
206-263-3801
(Call number above if no answer)

"In case of a spill to the sewer" poster:
Free for regulated facilities, a day-glow poster with emergency spill contact numbers, call KCIW to receive.

Spills to storm drains, rivers, lakes, or streams:
Washington State Department of Ecology: 425-649-7000

Spills to Lake Union, Ship Canal, or Puget Sound:
U.S. Coast Guard: 206-217-6232

Washington State Department of Ecology: 425-649-7000

Seattle Harbor Patrol: 206-684-4071

Flood planning:

King County's regional flood preparedness program Internet pages: **www.kingcounty.gov/safety/FloodPlan.aspx**

KCIW is evaluating how individual discharges of industrial waste to the sewer system should be handled during a major flooding event. For further information go to the Internet page: **www.kingcounty.gov/industrialwaste** and to the menu item "flood planning" or call KCIW.

Other resources for industrial facilities:

General

King County Industrial Waste Program: maintains resource listings on its Internet pages under Technical Assistance. Go to: **www.kingcounty.gov/industrialwaste** or call 206-477-5300 or TTY Relay: 711.

Hazardous waste

The Local Hazardous Waste Management Program in King County:
Information provided includes a Business Waste Line to learn about disposal of hazardous wastes. Go to: **www.lhwmp.org** or call 206-263-8899 or TTY Relay: 711 .

Washington State Department of Ecology:
Hazardous waste technical assistance and enforcement, regulations. Go to: **http://www.ecy.wa.gov/programs/hwtr/index.html** or call 425-649-7000.

Solid waste and recycling

Public Health - Seattle and King County: Waste Characterization Programapproves disposal of industrial wastes such as sludges, sandblast waste, and contaminated soils in the garbage. Go to: **www.kingcounty.gov/healthservices/health/ehs/toxic/SolidWaste.aspx** or call 206-296-4633.

King County Solid Waste Division: For recycling information in King County go to: **http://your.kingcounty.gov/solidwaste/garbage-recycling/recycling.asp** or call 206-296-4466, 1-800-325-6165 ext. 64466 or TTY Relay: 711.

The Local Hazardous Waste Management Program in King County:
Information provided includes the Industrial Materials Exchange of wanted and surplus materials. Go to: **www.lhwmp.org** or call 206-263-8465 or TTY Relay: 711.

Local sewer agencies, (including City of Seattle)

These local agencies own and operate independent collection systems, which include pipelines and pump stations to collect and carry wastewater flows in their service areas to King County's regional system for treatment and disposal. For a list with links, go to: **www.kingcounty.gov/environment/wtd/About/SewerAgencies.aspx**

Creating Resources from Wastewater

Alternate Formats Available
Voice: 206-477-5300 or TTY Relay: 711

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