

Industrial Pretreatment Newsletter

Published for industries regulated by the King County Industrial Waste Program (KCIW)



King County

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

Summer 2015

*KCIW works with companies to make sure the water they use is treated properly.
This protects communities, the environment, and the economy.*

Clean Water Awards – The Envelope Please...

Each spring, KCIW recognizes facilities that have done an excellent job maintaining compliance and preventing pollution. This work protects communities, the environment, and the economy in our region. This year 63 percent of eligible permit holders received awards.

The Commitment to Compliance Award honors facilities that have received a Gold Award for five consecutive years.

- Boeing Commercial Airplane - Auburn
- Precor Inc. - Plant 2
- Primus International - University Swaging Division

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Congratulations, 2014 award winners!

Tell your customers and clients about your award! King County celebrates award winners on web pages and in media releases. We can provide graphics and logos, copies of press releases to help you spread the word. Give us a call at 206-477-5300 or an email info.KCIW@kingcounty.gov.



Wastewater from Wineries

Washington is now the second largest wine-producing state, after California. This is great news for the economy in King County and the state. It also means KCIW needs to work with companies to make sure that the wastewater from this growing industry is treated properly.

Winery wastewater is acidic and can include cleaning agents, grape juice, and organic sediment (lees). A large volume of high-strength wastewater can affect the chemistry at sewage treatment plants. Many wineries do a great job managing their wastewater.

KCIW is working with wineries to develop guidelines to specify when a winery needs a Wastewater Discharge Permit. The program will also establish best practices for managing winery waste. Other industries that use fermentation, including breweries and distilleries, have similar effects on the wastewater system. Some of the

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Clean Water Awards, *Continued from page 1*

The Gold Award honors companies that have had no violations or late reports during the year.

- A.O. Smith Corporation
- Aerojet Rocketdyne Inc.
- Alaskan Copper Works - 6th Ave.
- Amgen Corp. - Seattle
- Aramark Uniform & Career Apparel LLC
- ASKO Processing Inc.
- Baker Commodities Inc.
- BNSF Railway Co. - Interbay Facility
- Boeing Commercial Airplane - Auburn
- Boeing Commercial Airplane - North Field
- Boeing Commercial Airplane - Renton
- Boeing Co. - Plant 2 Facility
- Boeing Electronics Center
- Cedar Grove Composting Inc.
- CMC Icos Biologics Inc.
- Eldec Corp.
- Esterline Hytek Finishes Co.
- Exotic Metals Forming Co.
- Foss Maritime Co.
- G & K Services
- Honeywell International Inc.
- Kenworth Truck Co.
- King County Road Services Division - Renton Decant Facility
- King County Solid Waste Division - Algona Transfer Station
- King County Solid Waste Division - Bow Lake Transfer Station
- King County Solid Waste Division - Cedar Hills Landfill
- King County Solid Waste Division - Factoria Transfer Station
- King County Solid Waste Division - Shoreline Transfer Station
- King County Solid Waste Division - Vashon Transfer Station
- Mastercraft Metal Finishing Inc.
- Precor Inc. - Plant 1
- Precor Inc. - Plant 2
- Primus International - University Swaging Division
- Protective Coatings Inc.
- Ralcorp Frozen Bakery Products
- Red Dot Corp.
- Safeway Inc. - Beverage Plant
- Seattle Public Utilities - Kent Highlands Landfill
- Skills Inc. - Auburn Facility
- Terex Washington Inc. - South Campus
- The Gear Works
- Trident Seafoods Corp.
- Tri-Way Industries Inc.
- University of Washington School of Dentistry
- Vectra Fitness Inc.
- Western Pneumatic Tube Co.
- Washington State Department of Transportation - Alaskan Way Viaduct Replacement Project, SR 99 Bored Tunnel

The Silver Award honors companies that have met requirements with no more than one late report or a few self-monitoring violations.

- Accurate Industries
- Ceradyne Inc. - Viox Glass Technology
- Coca-Cola Bottling Co. of Washington
- Darigold, Inc. - Issaquah Plant
- Davis Wire Corp.
- Glacier Northwest Inc.
- King County Solid Waste Division - Renton Transfer Station
- Magnetic and Penetrant Services Co.
- National Industrial Concepts
- National Products Inc.
- Northwest Cascade Inc. - Septage Thickening and Dewatering Facility
- Pacific Iron and Metal Inc.
- Port of Seattle, Sea-Tac International Airport, BW
- Port of Seattle, Sea-Tac International Airport, IWS
- Qualawash Holdings LLC
- Rabanco Recycling Co.
- Sanofi-Aventis U.S. LLC
- Shasta Beverages
- Skills Inc. - Ballard Facility
- Sound Transit - Capitol Hill Station Location
- Sound Transit - University of Washington Station Location
- Spiration Inc. dba Olympus Respiratory America
- Terex Washington Inc. - North Campus
- TOC Holdings Co.
- Universal Sheet Metal Inc.
- University of Washington Nanofabrication Facility





Proposed update to analytical methods under Clean Water Act (40 FCR 136)

EPA has proposed changes to analytical methods for various pollutants. These changes could affect industries and regulatory agencies that use the methods to test for chemicals in wastewater under the Clean Water Act. The changes are designed to offer more flexibility, improve data quality, and keep current with new technology and methods.

The King County Environmental Laboratory assessed the changes and provided comments to EPA. The laboratory considered impacts to King County and industrial users in our service area. The laboratory has concluded that the proposed changes don't appear to have a significant impact on current sample collection methods and routine methods for sample analysis.

Check the EPA website for more information: <http://water.epa.gov/scitech/methods/cwa/mur2015.cfm>.

Metal Finishing Guidelines

The Environmental Protection Agency (EPA) is considering revisions to the Metal Finishing (433) and Electroplating (413) effluent guidelines. Metal finishing processes may release high metal concentrations to sewage treatment plants. Chromium, nickel, and zinc are of particular concern. While electroplating hasn't been specifically identified by EPA, several state regulators have suggested the possible need to combine the two categories in the guidelines. This would better reflect new technologies, chemical formulas, and processes which have been developed since the guidelines were created in the 1980s. KCIW provided feedback on the proposed changes through the National Association for Clean Water Agencies. KCIW supports the idea of combining the two categories. Currently KCIW regulates 39 different facilities under the 433 category and four under 413.

KCIW will continue to track EPA's proposed action and share more information through the newsletter, webpage and direct communication with affected business.

Wastewater from Wineries *(Continued from page 1)*



practices established for wineries may be useful for those industries too.

KCIW researched winery waste in 2013-2014. Staff sampled the waste stream in an area where there are a large number of small wineries. The team measured biochemical oxygen demand (BOD), total suspended solids (TSS), and pH. Program staff visited wineries and met with industry representatives. The research will be published in 2015. It will support developing new guidelines for the wine industry in King County's wastewater service area.



Elsewhere in the state, the Washington State Department of Ecology is in the preliminary stages of developing a water quality permit for wineries. Both California and Oregon have developed permits for wineries already. Ecology is working with wineries and wine associations. More information is available on Ecology's website at: <http://www.ecy.wa.gov/programs/wq/permits/winery.html>

Source material for this article came from the Washington State Department of Ecology.

KCIW's 2015-16 Fees and Charges –

No Change to Fees This Year

King County's Industrial Waste Program is funded by fees paid by businesses. Each year, KCIW reviews and sets its fees to recover the cost of operating the program. KCIW's fee period runs from July 1 through June 30. In 2015-16, KCIW fees will remain at the same level as the previous year. (King County wastewater rates did go up in 2015.)

1. Permit and authorization fees

King County issues four types of approval to send industrial wastewater into the sewer. The type of approval needed depends on the industrial process, the volume of wastewater, and whether it is short or long-term.

Permit and authorization fees cover a 5-year period. Fees are set to recover the cost of issuing the documents only. Facilities with permits pay a separate fee for the cost of monitoring to ensure compliance (see No. 2 below). Industrial users are not charged for any revisions of a permit initiated by the County.

2. Compliance monitoring fees

Additional fees are required to monitor companies to make sure they stay within the limits set for heavy metals and fats, oils, and grease (FOG). These fees pay for the cost of required inspections, sampling and analysis, and overall management of the permit.

3. Surcharge fees

Businesses that send “high-strength” or more concentrated waste to the sewer pay an extra surcharge based on how much material is in their wastewater. High-strength waste contains a higher concentration of “total suspended solids” (TSS) and “biochemical oxygen demand” (BOD) than typical wastewater. BOD is a measure of organic material that uses up oxygen in the water. It costs more to treat high-strength waste because we have to take more out of the water.

The surcharge fee covers the cost of treating this high-strength waste and administration of the surcharge program. Administration costs represent approximately 10 percent of the overall cost of the surcharge program.

4. Post-violation fees

Facilities that violate the regulations are required to reimburse King County for the costs associated with the violation. Post-violation fees include the cost of preparing enforcement documents, additional inspections, additional sampling, and analysis. Based on King County Code, the Wastewater Treatment Division seeks to recover the full cost associated with violations from those that violate the rules.



Waste from circuit board manufacturing can contain heavy metals. The largest portion of KCIW program costs is associated with monitoring heavy metals.



Surcharge fees pay for treating high-strength waste that can come from food and beverage companies.



Companies pay for any additional inspections required after violations.

5. Fines

Fines for violations can reach \$10,000 per day per violation. Businesses are also liable for any damages and additional costs caused by their discharges, such as the cost to clean a blocked sewer line.

Who do you pay for sewer service?

Industrial waste fees are paid in addition to sewer rates. Industrial Waste fees will remain at previous levels in 2015. But King County sewer rates did go up in 2015. Businesses pay some industrial waste fees to King County and some to their local sewer agency. King County treats the sewage from 34 local sewage agencies at its three regional treatment plants. The local agencies bill residents and businesses. They use some funds from sewer rates to run the local system and some to pay King County. King County also charges a capacity charge for new connections to the system. The capacity charge helps King County cover the cost of sewer improvement and expansion projects needed to serve growth in the region.

You can find more information about King County sewer charges online at www.kingcounty.gov/RatePayerReport

Fee/Charge	Bill paid to
1. Permit/authorization fees	King County
2. Monitoring fees	Local sewage agency
3. High-strength surcharge	Local sewage agency
4. Post-violation sampling, analysis, and administrative fees	King County
5. Fines	King County
6. Sewer rates	Local sewage agency
7. Capacity charge	King County

KCIW fees and charges

(Effective July 1, 2015 through June 30, 2016 -- These fees remain unchanged from 2014-2015)

1. Permit/authorization fees	
Discharge Permit	\$4,505
Major Discharge Authorization	\$2,280
Minor Discharge Authorization	\$1,200
Letter of Authorization	\$750
2. Compliance monitoring fees	
Heavy Metals	\$0.003579/gal.
Fats, oils, and grease (FOG)	\$0.000382/gal.
Special monitoring fees	Variable
3. High-strength surcharge	
Biochemical oxygen demand (BOD)	\$0.189482/pound
Total suspended solids (TSS)	\$0.310245/pound
4. Post-Violation sampling and administrative fees	
BNAs (semi-volatile organics)	\$1,605
Cyanide (amenable to chlorination)	\$1,005
Cyanide (total)	\$755
Free-floating polar FOG	\$505
Heavy metals	\$695
Nonpolar FOG	\$645
pH (grab)	\$505
pH (24-hour continuous monitoring)	\$1,010
Settleable solids (volumetric)	\$555
VOAS (volatile organics)	\$1,305
Full enforcement action	\$5,000
Enforcement - No Further Action	\$2,500
Inspection	\$535
5. Fines	
Up to \$10,000 per violation per day	

Questions about the KCIW's fees? Contact the program Info.KCIW@kingcounty.gov.

Envirovation Award application deadline Nov. 1

KCIW encourages all permitted facilities to apply for its annual Envirovation Award for excellence in pretreatment. For a downloadable application, and to learn about the awards criteria, visit www.kingcounty.gov/industrialwaste or contact the program.

Sampling Terms



Here are some quick definitions of common terms for self-monitoring purposes. These terms may have other meanings, and these definitions are not to be used to interpret your permit or authorization. If you have questions about your permit or authorization – or about any of these terms – contact KCIW.

Discharge: The material being sent to the sewer or the act of sending flow to the sewer.

Grab Sample: An individual sample collected at a specific time. Grabs are generally collected manually using an appropriate collection vessel. Grab samples are used when you need to take a measurement or preserve the sample shortly after collecting it. Some pollutants cannot be held for long periods of time. Routine samples that are collected by grabs include pH, cyanide, volatile pollutants, and fats, oil and grease (FOG).

Aliquot: A measured portion of an individual sample.

Composite Sample: Portions of several grabs blended together for analysis. Composite samples provide a better representation of the discharge, especially if the concentrations of the pollutants might change over the collection period. There are two ways to collect composite samples:

- Time-proportional composite sample: Aliquots taken at regular time intervals (for example, every 15 minutes). For self-monitoring, a time-proportional composite sample is four or more aliquots of equal volume collected no sooner than 15 minutes apart and no more than two hours apart throughout the processing day.
- Flow proportional composite sample: Aliquots taken at intervals measured by volume of flow. The frequency of sampling is based on the volume of flow at the time of collection or the total flow since collection of the previous sample.

Sample Frequency: How often a company needs to collect samples while discharging flow to the sewer. This can be required on a daily, weekly, monthly, semimonthly, quarterly or annual basis. Your permit or authorization specifies the frequency for sample collection. Here are a few examples:

- Weekly Composite Sample: A composite sample collected in one 24-hour period once per week.
- Weekly Grab sample: A grab sample collected once per week
- Monthly Composite Sample: A composite sample collected in one 24-hour period once per month.
- Monthly Grab Sample: A grab sample collected once per month

Representative Sample: A sample that reflects the discharge throughout the sample collection period. Collect samples when your business is discharging waste to the sewer during routine operation. If your business discharges only at certain times of the day, be sure to sample at those times. If your business has no flow to sample, report no discharge. There is no need to create flow just to measure it.



Automatic samplers can collect composite samples according to a time schedule or metered flow.

Companies Receive Penalties

Industries must pretreat the water they use before they send it to the sewer. They have to monitor and report how they are doing. This protects people, the environment, and the economy. KCIW helps businesses meet requirements. Most companies in King County do an excellent job following clean water rules.

When companies are in significant noncompliance with water quality rules, King County is required to publish their names in the newspaper. From July to December 2014, these companies were in “significant noncompliance” with federal rules and/or received fines.

Company and Type of Violation	Reason for publication
Burlington Environmental LLC – Kent Discharge Violation: For exceeding 3,4-methylphenol monthly average and technical review criteria	Significant noncompliance. Company required to reimburse \$7140 for additional monitoring costs and received a compliance order to evaluate their pretreatment system and procedures.
Kerry Inc. Reporting violation: For failure to file complete permit application by deadline.	Significant noncompliance. Company submitted report. No further action.
North Star Casteel Products Inc. Reporting violation: For failure to file complete permit application by deadline.	Fined \$500.
SODO Recycle and Auto Wrecking Inc. Reporting violation: For failure to file complete permit application by deadline.	Fined \$500
Surplus Items Inc. Discharge Violation: Three violations for pH in four reporting periods.	Fined \$300 and required to reimburse \$4920 for additional monitoring costs.
WSDOT - SR 99 South Access Connection Project Reporting violation: For failure to file required report by deadline.	Significant noncompliance. Company submitted the report. No further action.

Other Violations

KCIW acted on eight more violations at five companies from July to December 2014. These were not in “significant noncompliance.” They did not receive fines. Where applicable, they reimbursed the county for additional monitoring costs.

Two Steps to Avoid Costly Mistakes

In 2014, fines and charges ranged from \$500 to almost \$70,000! Companies can avoid this cost – and embarrassment – by meeting requirements. KCIW staff can help.

- 1. Make sure your approved pretreatment system is maintained and is working correctly**
- 2. Send reports on time:**
 - Schedule enough time to conduct sampling and confirm results
 - Save time & money by sending reports via email: Info.KCIW@kingcounty.gov



Department of Natural Resources and Parks
Industrial Waste Program
 201 S. Jackson St., Room 513
 Seattle, WA 98104-3855

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Creating Resources from Wastewater

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- Wendee Cook, Exotic Metals Forming Co.
- Ken Falcone, Cargill, Inc.
- Donna Hoskins, Sanofi-Aventis U.S.
- Julie Howell, Seattle Public Utilities
- Mark LaFata, Precor, Inc.
- Steve Simacek, Hytek Finishes
- Heather Trim, Futurewise
- Doris Turner, Boeing Commercial Airplane Group -Renton
- Chris VanHoof, City of Bellevue
- Scott Woerman, Landau Associates

Contact KCIW:

King County Industrial Waste Program
 201 S. Jackson St. Room 513
 Seattle, WA 98104-3855
 Phone: 206-477-5300 and TTY Relay: 711
 Fax: 206-263-3001
 Email: Info.KCIW@kingcounty.gov
 Web: www.kingcounty.gov/IndustrialWaste