

Appendix E

Wastewater Discharge Permit for Cedar Hills Regional Landfill No. 7842-03



King County

Wastewater Treatment Division

Industrial Waste Program

Department of Natural Resources and Parks

201 South Jackson Street, Suite 513

Seattle, WA 98104-3855

206-477-5300 Fax 206-263-3001

TTY Relay: 711

October 24, 2018

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Pat McLaughlin
King County Solid Waste
201 S. Jackson Street, Room 701
Seattle, WA 98104

Issuance of Renewed Wastewater Discharge Permit No. 7842-03 to King County Solid Waste
by the King County Department of Natural Resources and Parks

Dear Mr. Pat McLaughlin:

The King County Industrial Waste Program (KCIW) has reviewed and processed your application for issuance of an industrial wastewater discharge permit in accordance with Chapter 90.48 RCW as Amended, Public Law 92-500, and King County Code 28.84.060.

The enclosed issued Permit No. 7842-03 covers the wastewater discharge from the King County SWD - Cedar Hills Landfill operation located at 16645 228th Avenue SE, Maple Valley, Washington. All discharges from this facility, and actions and reports relating thereto, shall be in accordance with the terms and conditions of this permit.

The enclosed Permit No. 7842-03 supersedes and cancels Permit No. 7842-02 effective October 26, 2018.

King County Code 28.84 authorizes a fee for each Permit issued by the King County Department of Natural Resources and Parks. The current fee for issuance of a Permit is \$6000. King County will send an invoice for this amount.

The main changes to this renewed permit from the previous permit are as follows:

- Four metal parameters have been added as self-monitoring parameters
- The self-monitoring for metal parameters has increased in frequency from a monthly to a weekly basis

Pat McLaughlin
October 24, 2018
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- The use of a sufficiently low method detection limit in order to determine metal loading values has been specified.
- A requirement is added for the submittal of an annual report on non-required sampling parameters collected at the point of compliance (Site A90021)

If you have any questions about this permit or your wastewater discharge, please call Greg Newborn at 206-477-5422 or email him at greg.newborn@kingcounty.gov. You may also wish to visit our program's Internet pages at: www.kingcounty.gov/industrialwaste.

Thank you for helping support our mission to protect public health and enhance the environment.

Sincerely,



Mark Henley
Program Manager

Enclosures

cc: Biniam Zelelow, Washington State Department of Ecology
Mark Lampard, K.C. WTD

Permit No.: 7842-03

Issuance Date: October 24, 2018

Effective Date: October 26, 2018

Expiration Date: October 25, 2023



King County

WASTE DISCHARGE PERMIT

Department of Natural Resources and Parks

Industrial Waste Program

201 S. Jackson Street, Suite 513

Seattle, WA 98104-3855

In accordance with the provisions of Chapter 90.48 RCW as amended,
Public Law 92-500, and King County Code 28.84.060,
a Waste Discharge Permit is issued to:

King County Solid Waste Division - Cedar Hills Landfill

Facility location: 16645 228th Avenue SE
Maple Valley, WA 98038

Business hours phone: 206-477-4466

Emergency (24-hour) phone: 206-477-4466

Mailing address: 201 S. Jackson Street, Room 701
Seattle, WA 98104

Permission is hereby granted to discharge industrial wastewater from the above-identified facility into the King County sewerage system in accordance with the effluent limitations and monitoring requirements set forth in this permit.

This permit is based on information provided in the permit application, which together with the following conditions and requirements are considered part of the permit. All requirements and ordinances of King County pertaining to the discharge of wastes into the King County sewerage system are hereby made a condition of this permit. All discharges and activities authorized herein shall be consistent with the terms and conditions of this permit.

This permit is not transferable without authorization from the King County Industrial Waste Program (KCIW). Failure to provide advance notice of a transfer renders this waste discharge permit voidable on the date of facility transfer.

By


Mark Henley, Industrial Waste Program Manager

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S1. EMERGENCY CONTACTS

KING COUNTY

Industrial Waste Program (8 a.m. – 5 p.m., weekdays): 206-477-5300

Greg Newborn, Industrial Waste Compliance Investigator: 206-477-5422

Mark Henley, Industrial Waste Program Manager: 206-263-6994

Your emergency contact after 5 p.m. weekdays and on weekends is:

South Treatment Plant: 206-263-1760

If unable to reach anyone at the above treatment plant number, call:

West Point Treatment Plant: 206-263-3801

WASHINGTON STATE DEPARTMENT OF ECOLOGY

24-Hour emergency spill phone number: 425-649-7000

S2. PERMIT SUMMARY AND COMPANY IDENTIFICATION

A. Summary Information

The following industrial waste discharge sites have been identified for this facility:

<i>Sample Site No.</i>	<i>Limit Type</i>	<i>Daily Maximum Discharge Volume (gpd)</i>	<i>Description</i>
A9002	King County Local Limits	NA	Sample box adjacent to King County Maintenance Hole Number R10-52
A90021		2,700,000	Cedar Hills Leachate/Effluent Pump Station

Effluent limitations and self-monitoring requirements for this sample site are detailed in S4.A of this permit.

B. Reports

<i>Report Name</i>	<i>Section(s)</i>	<i>Due Date</i>
Annual Facility Report of Non-required Sampling	S3.B	By March 15 th of each year
Monthly self-monitoring reports	S4.A	15th day of each month
14-Day Report: Discharge or permit violation	S4.D	Within 14 days after a discharge or permit violation becomes known
5-Day Report: Slug discharge or spill	S6.A	Within five days after a slug discharge or spill
Slug/Spill Control Plan	S6.A	As requested by KCIW
Installation/Upgrade of Pretreatment System Report	S6.C	Prior to installation or upgrade
Hazardous waste discharge notification	S6.D	For all other wastes, within 90 days after waste is identified through RCRA
Washington State Department of Ecology Dangerous Waste Reports	S6.D	As requested by KCIW

C. Major Changes in the Renewed Permit

This renewed permit contains the following major changes since it was last issued:

1. Total arsenic, cadmium, mercury and silver are being added as weekly self-monitoring parameters (**S4.A.1**).
2. The self-monitoring for metals in S4.A.1 has increased in frequency from the previous permit of monthly to weekly in this permit.
3. Section S4.A.1, Footnote 1 requires SWD to calculate and report metals mass loading values alongside their respective concentration and flow values on the Self-Monitoring Report (SMR) form. To ensure that compliant metal loading values can be determined, the analytical method selected must have sufficiently low method detection limits (MDLs) to calculate these loadings at high daily discharge volumes, including up to the daily maximum discharge volume of 2.7 MGD.
4. In lieu of monthly submittals of non-required discharge sampling parameters as described in S4.A.3 of the previous permit, KCIW is requiring King County Solid Waste Division (SWD) - Cedar Hills Landfill to submit an Annual Facility Sampling and Monitoring Report (**S3.B**).
5. Updated, standardized language has been added to the flow meter calibration requirement to address the flow measuring equipment at the Leachate Pumping Station (LEPS) (**S3.C**)

D. Company Identification

SIC Code No.:	4953
Hazardous Waste Generator No.:	WAD 047848122
Industry Type:	Solid Waste - Landfill

S3. SPECIAL CONDITIONS

A. Discharges from other King County Solid Waste Division Facilities

This permit allows occasional hauling and discharges of leachate from other King County SWD facilities to the leachate lagoons at the King County SWD – Cedar Hills Landfill (KC-SWD or CHRL). All terms and conditions of this permit shall apply to these discharges. At no time will CHRL allow a discharge that will cause it to violate any of the effluent and self-monitoring limits as described in S4 of this permit. CHRL's monthly self-monitoring reports shall indicate the source, number of loads, and quantities discharged. These quantities shall also be included in the monthly report in the notes section.

B. Annual Facility Sampling and Monitoring Report of Non-required Sampling Parameters

By **March 15th** of each year, CHRL is required to submit an *Annual Facility Sampling and Monitoring Report* for the previous calendar year detailing sampling and analytical results and information for any parameters not listed in S4.A. 1 of this permit, but which are collected at sample sites A90021.

The annual report of the non-required self-monitoring must contain the following elements:

1. A narrative summary of sampling activities for the preceding calendar year to include:
 - a. The following information on the person(s) who prepared the report
 - i. Name
 - ii. Title
 - iii. Contact information (address, phone, email)
 - b. Statements describing the facility's sampling objectives
 - c. A list of parameters and total number of samples collected during the period
 - d. Discussion of applicable quality assurance standards and methods employed for the various parameters
 - e. A list of all applicable lab qualifiers.

2. A reporting of sample results for all **detected** parameters arranged by their respective laboratory units with:
 - a. Parameter names
 - b. Sample dates
 - c. Lab sample numbers
 - d. Sample values
 - e. Sample units of measurement
 - f. Lab qualifiers assigned to each sample
3. A Certification Statement which is signed by a current and duly authorized signatory for KC-SWD CHRL.

KCIW will evaluate this data and based on its findings, use its discretion to take any of the following actions:

1. Request CHRL to investigate, and if warranted, further characterize possible sources of any developing contaminant(s) of concern.
2. KCIW may require CHRL (within a specified timeframe), to provide a plan for remediating any identified contaminant(s) of concern.
3. KCIW may revise this permit to add conditions, limitations, and sampling/monitoring requirements to address any contaminants it has identified as an emergent concern to worker safety, the King County wastewater conveyance and POTW infrastructure, or to the quality of our biosolids.

C. Annual Flow Metering/Measurement Calibration and Verification

The following are requirements for the calibration and verification of flow metering and/or measurement.

1. The permittee must use calibrated flow metering/flow measurement to determine discharge volumes and follow the manufacturer's specification for calibration.
2. At least annually, the permittee shall verify the accuracy of flow metering/measurement used to calculate the discharge volume from the industrial wastewater treatment systems.

- a. The verification must be performed by qualified staff. This could be either permittee's employee or third party.
 - b. Verifications may be performed on-site or if applicable, at a vendor site.
 - c. At a minimum flow metering/measurement verification must be conducted using at least one of the following methods:
 1. By discharge to or from a vessel of known volume.
 2. Using another flow meter that is calibrated by an independent third party.
 3. Re-calibration by the original manufacturer or another qualified vendor.
 - d. The acceptance limit for calibration verification is 90% -110% of the reference measurement. The permittee must re-calibrate flow metering/measurement per manufacturer's specifications if the verification fails. All self-monitoring data taken with flow metering/measurements that fail verification must be noted on self-monitoring reports until the subject flow meter is back within acceptance limits.
3. Flow metering/measurement calibration and verification must be documented and records must be obtained and be maintained on site for a minimum of three years.

D. Downstream Discharge Structure Recordkeeping

King County SWD shall maintain records on any inspections or cleaning and maintenance activities of the discharge vault adjacent to King County Maintenance Hole (MH) Number R10-52. These records must be maintained for three years and made available to KCIW upon request. At a minimum these records should include:

1. Date of inspection, maintenance and/or cleaning
2. Names and contact information of personnel who inspected/cleaned site
3. A summary of observations on the operational conditions at the site
4. The final disposal location of solids and other materials removed from the vault

E. Screening Level for Soluble Sulfide

1. Discharges that exceed the soluble sulfide screening level of 0.1 milligrams per liter (mg/L) have the potential to cause occupational health hazards in the sewage collection system or indicate that treatment has not been sufficient enough to remove hazardous waste characteristics.
2. Determination of the soluble sulfide concentration using an approved field test kit is acceptable.
3. For each exceedance of the screening level the permittee shall:
 - a. Take immediate action to stop the exceedance and notify KCIW within 24 hours of learning of the exceedance
 - b. Collect a sample and submit new data to KCIW within 14 days of becoming aware of the exceedance (or the next time discharge occurs if greater than 14 days)
 - c. Submit a written report within 14 days of learning of the exceedance (14-Day Report)
 - d. The report should explain the cause of the exceedance and corrective actions taken to respond to the sulfide exceedance and ensure ongoing compliance
4. The following conditions apply whenever KCIW monitoring or the permittee's self-monitoring results exceed the screening level for three out of four consecutive sampling events:
 - a. The permittee shall submit a plan indicating the steps that will be taken to ensure that discharges do not exceed screening levels.
 - b. This plan shall be submitted within 30 days from the third measurement indicating that the discharge exceeded the screening level, and indicate the steps that will be taken to reduce soluble sulfide concentrations so that they remain consistently below screening levels within 60 days.
5. If the submitted plan (required in S3.E.4) does not result in continued compliance with the screening limit, KCIW may require further action, which may include performing additional soluble sulfide sampling at Sample Site No. A90021 and/or additional atmospheric hydrogen sulfide monitoring at Sample Site No. A9002 to assess for compliance with the King County local discharge limit of 10.0 parts per million.

S4. EFFLUENT LIMITATIONS & SELF-MONITORING REQUIREMENTS

A. Effluent Limitations and Self-Monitoring Requirements:

1. The permittee shall comply with the following discharge limits and monitor its discharges to the King County sewerage system as specified below.

<i>Sample Site No.</i>	<i>Limit Type</i>	<i>Sample Site Description</i>			
A90021	King County Local Limits	Cedar Hills Leachate/Effluent Pump Station (LEPS) Wet Well			
<i>Parameter</i>	<i>Daily Average (mg/L)</i>	<i>Instantaneous Maximum (mg/L)</i>	<i>Maximum Loading¹ (lbs/day)</i>	<i>Sampling Frequency</i>	<i>Sample Type</i>
Arsenic, Total ²	1.0	4.0	0.27	Weekly	Composite
Cadmium, Total	0.5	0.6	0.17	Weekly	Composite
Chromium, Total	2.75	5.0	1.20	Weekly	Composite
Copper, Total	3.0	8.0	6.89	Weekly	Composite
Lead, Total	2.0	4.0	1.20	Weekly	Composite
Mercury, Total	0.1	0.2	0.06	Weekly	Composite
Nickel, Total	2.5	5.0	2.49	Weekly	Composite
Silver, Total	1.0	3.0	0.44	Weekly	Composite
Zinc, Total	5.0	10.0	12.31	Weekly	Composite
Cyanide, Amenable	2.0	3.0	NA	NA	NA
Total Soluble Sulfides (ppm) ³	NA	0.1	NA	Weekly	Grab
<i>pH (s.u.)</i>	<i>Daily Minimum</i>	<i>Minimum</i>	<i>Maximum</i>	Weekly	Grab
	5.5	5.0	12.0		
<i>Daily Maximum Discharge Volume (gpd)</i>	<i>Industrial 2,700,000</i>	<i>Other -0-</i>	<i>Total 2,700,000</i>	Continuous	Pump Meter

¹ The applicable mass loading limit for each parameter has been calculated to prevent significant increase of pollutants at South Treatment Plant influent and biosolids. The daily allowable mass limit for each parameter is the total pounds discharged from site A90021. At the maximum discharge volume, the concentration for each parameter will have to be less than the daily maximum concentration in order to comply with the mass loading limit. The Permittee is required to calculate and report the metals mass loading values for each required sample on the SMR form. Analytical detection limits for the aqueous concentrations of metal parameters shall be sufficiently low to determine compliance with maximum metal loading limitations at higher discharge volumes, including up to the daily maximum discharge volume limitation in this table.

² For the determination of total metals (which are equivalent to total recoverable metals) the sample is not filtered before processing.

³ This is a screening level; see section S3.E for response procedures after screening level is exceeded. Each month, one of the weekly total soluble sulfides sampling events should coincide with the atmospheric hydrogen sulfide sampling event.

A. Effluent Limitations and Self-Monitoring Requirements (continued):

2. The permittee shall comply with the following discharge limits and monitor its discharges to the King County sewerage system as specified below.

<i>Sample Site No.</i>	<i>Limit Type</i>	<i>Sample Site Description</i>			
A9002	King County Local Limits	Sample box adjacent to King County Maintenance Hole Number R10-52			
<i>Parameter</i>		<i>Instantaneous Maximum (ppm)</i>	<i>Average (ppm)</i>	One week per month	Continuous
Atmospheric hydrogen sulfide (H ₂ S)		10.0	10.0		

3. A self-monitoring report of all required sampling (S4.A.1 and S4.A.2) must be filed no later than the 15th day of the time period following the reporting period (i.e., the 15th day of the following month for monthly reports; January 15, April 15, July 15, and October 15 for quarterly reports; January 15 and July 15 for semiannual reports; and January 15 for annual reports). The permittee shall use the KCIW self-monitoring form to submit results unless an alternate form is approved by KCIW. If no discharge has occurred during the sampling period, the report shall be submitted notifying KCIW that no discharge has occurred.
4. The total volume discharged for any processing day shall be calculated by reading the volume passing through flow meter number **548181**. Any other method to calculate daily discharge volume shall be pre-approved by KCIW. The total volume for each processing day on which metal samples are collected shall be reported on self-monitoring reports. The total monthly discharge volume shall be reported on self-monitoring reports.
5. Volume and waste type from all batch discharges shall be recorded on the self-monitoring form.
6. For self-monitoring, the permittee shall collect composite samples in accordance with the following methods:
 - a. Heavy metals and organics parameters (other than volatile organics):
 - i. If time-proportioned composite sampling is authorized, a composite sample shall consist of four or more grab samples of equal volume collected at least 15 minutes apart and no more than two hours apart throughout the processing day from a well-mixed effluent chamber.

- ii. A flow-proportioned composite sample shall mean a sample composed of grab samples collected continuously or discretely, by hand or machine, in proportion to the flow at the time of collection or to the total flow since collection of the previous grab sample. The grab sample volume or frequency of grab collection may be varied in proportion to flow.
 - b. A cyanide composite sample shall consist of four grab samples of equal volume collected at least 15 minutes apart and no more than two hours apart from a well-mixed effluent chamber. Each aliquot shall be collected, treated, and preserved in the field in accordance with 40 CFR 136 and 403 appendix E. Treated aliquots may be collected into a single container and analyzed as one sample.
 - c. For volatile organic analysis (VOA), a composite sample shall consist of four grab samples of equal volume collected at least 15 minutes apart and no more than two hours apart from a well-mixed effluent chamber. Each aliquot shall be collected and preserved in the field in accordance with 40 CFR 136. The individual grab samples may be composited (at the laboratory) prior to analysis.
 - d. For situations where the only discharge for the 24-hour period is of short duration (e.g., batch discharge), resulting in the inability to collect composite samples that meet the definitions described in Number 5.a-c above, the permittee shall collect grab samples every 15 minutes during the duration of the discharge. Regardless of the number of aliquots making up this sample, it will be used to evaluate compliance with daily average limits.
7. Discharges of greater than pH 12 are prohibited unless the permittee obtains written approval (email is sufficient) from KCIW prior to discharge and is subject to special conditions to protect worker safety, the collection system and treatment works.
8. Should an automatic pH recording system fail (if required by permit or compliance order), the permittee shall manually check the pH at least four times per hour. Any discharge without a pH record shall be considered a violation of this permit.

B. Required and Non-required Self-Monitoring

All discharge sampling data collected by the permittee shall be analyzed using procedures approved by 40 CFR 136 or approved alternatives and shall be submitted to KCIW whether required as part of this permit (S4.A.3) or done voluntarily by the permittee (see S3.B).

C. Violation Criteria

1. Wastewater from regulated processes shall comply with the effluent limitations prior to dilution with other wastewaters unless a fixed alternative discharge limit is approved by KCIW. (See Section S8.C.4 for further information about dilution.)
2. A review of any violation will include consideration of testing accuracy prior to enforcement action.
3. The more restrictive limitation (concentration or mass) shall prevail for determining violations.
4. Daily average and maximum monthly average limits apply to composite samples and to grab samples from short-term batch discharges.
5. Instantaneous maximum limits apply to grab samples, with the exception of grab samples from short-term batch discharges.
6. The instantaneous minimum pH limit is violated whenever any single grab sample or any instantaneous recording is less than pH 5. The daily minimum pH limit is violated whenever any continuous recording of 15 minutes or longer remains below pH 5.5 or when each pH value of four consecutive grab samples collected at 15-minute intervals or longer within a 24-hour period remains below pH 5.5.
7. The limit for nonpolar FOG (mineral origin) is violated when the arithmetic mean of the concentration of three grab samples (taken no more frequently than in five minute intervals), or when the result of a composite sample exceeds 100 mg/L.

D. Response when Violations are Detected

1. When monitoring data shows a violation, the permittee shall:
 - a. Take immediate action to stop the violation and notify KCIW within 24 hours of learning of the violation.
 - b. Collect a sample and submit new data to KCIW within 14 days of becoming aware of the violation.
 - c. Submit a written report within 14 days of learning of the violation (*14-Day Report*). The report should explain the cause of the violation and corrective actions taken to respond to the violation and ensure ongoing compliance.

2. In the event the permittee is unable to comply with any of the conditions of this permit because of a breakdown of equipment or facilities, an accident caused by human error, negligence, or any other cause, such as an act of nature, the permittee shall:
 - a. Take immediate action to stop, contain, and clean up the unauthorized discharges and correct the problem.
 - b. Immediately notify KCIW and, if after 5 p.m. weekdays and on weekends, call the emergency King County treatment plant phone number in Section S1 so steps can be taken to prevent damage to the sewerage system.
 - c. Submit a written report within 14 days of the event (*14-Day Report*) describing the breakdown, the actual quantity and quality of resulting waste discharged, corrective action taken, and the steps taken to prevent a recurrence.
3. Whenever an effluent check shows a pH violation, as defined in King County Code 28.84.060.N "Violations," the permittee shall take immediate steps to bring the discharge back into compliance. If this is not possible, the permittee shall cease discharge.
4. Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

E. Limitations Applicable to All Sites

1. General

The permittee's discharge shall not interfere with the operation of the King County sewerage system, cause King County to exceed its NPDES permit limits, or endanger local utility or King County sewer workers.

The permittee's discharge shall not violate any discharge standard, limitation, or specific prohibition of King County Code 28.84.060 or local discharge limits applicable on the date of discharge. (See Section 28.84.060.D-F of King County Code.)

Prohibitions previously referenced include, but are not limited to, substances causing fire or explosion hazard, flow obstruction, excess oxygen demand, and toxic vapors.

Limitations listed in Section S4 include, but are not limited to, restrictions on settleable solids, organic compounds, hydrogen sulfide, and polar FOG.

2. Organic compounds

No person shall discharge any organic pollutants that result in the presence of toxic gases, vapors, or fumes within a public or private sewer or treatment works in a quantity that may cause acute worker health and safety problems.

Organic pollutants subject to this restriction include, but are not limited to any organic compound listed in 40 CFR 433.11 (e) Total Toxic Organics (TTO) definition, acetone, 2-butanone (MEK), 4-methyl-2-pentanone (MIBK), and xylenes.

Dischargers are required to implement good "housekeeping" and best management practices in order to prevent the discharge of a concentrated form of any of the preceding organic pollutants.

3. Lower explosive limit (LEL)

At no time shall two successive readings on an explosive hazard meter at the point of discharge into the King County sewerage system (or at any point in the system) be more than 5 percent of the LEL. No single reading shall exceed 10 percent of the LEL.

4. Closed cup flashpoint

Discharges shall not have a closed cup flashpoint of less than 140° Fahrenheit or 60° Centigrade using test methods specified in 40 CFR 261.21.

5. Temperature

Discharge shall not cause the temperature of the influent at the King County treatment works to exceed 40° C (104° F). The temperature shall not exceed 65° C (150° F) at the point of discharge from the industrial source to public sewers and/or the metropolitan sewerage system.

6. Settleable Solids

Discharge shall not have a settleable solids volume greater than 7 ml/L.

F. **Responsibility for Compliance**

It is the responsibility of the permittee to ensure that all effluent limitations of this permit are met whether or not self-monitoring for the parameter is required.

S5. SAMPLE SITE ACCESS AND IDENTIFICATION

- A. Unobstructed access to sample sites shall be available to authorized KCIW personnel during normal operating hours. The permittee shall be responsible for providing alternate sample sites in the event of obstruction of access or upon evidence of tampering with the monitoring equipment.
- B. The permittee shall allow KCIW to permanently label the sample sites used to collect wastewater samples.
- C. The permittee shall, at all reasonable times, allow authorized representatives of KCIW to enter, inspect, and sample as specified in King County Code 28.84.060.L, "Inspection and Sampling of Industrial Users."

S6. NOTIFICATION REQUIREMENTS

A. Spills and Slug Discharges

1. The permittee shall notify KCIW immediately in the event of a spill or slug discharge to the sanitary sewer. A written report regarding the cause of the spill and/or slug discharge shall be submitted to KCIW within five days of the date of occurrence. The report should explain the cause of the violation and corrective actions taken to respond to the violation and ensure ongoing compliance. (See Section S8.B for spill and slug discharge control procedures.)
2. Following a spill and/or slug discharge, KCIW may require the submission or modification of a spill/slug control plan.

B. Changes in Discharge Characteristics

The permittee shall inform KCIW prior to any facility or manufacturing changes that will result in:

1. Introduction of new wastewater pollutants
2. Significant alteration in the volume (greater than 20 percent increase from permit application) or character of the pollutants discharged to the King County sewerage system
3. Discharge of waste streams not listed in the permit application
4. Addition of a new point of discharge or a new chemical, process, product, manufacturing line, or waste processing activity
5. Changes in the potential for spill or slug discharges

No change shall be made until plans have been approved and either written permission or a new or modified permit has been received. In no case are any changes permitted that will cause violation of the effluent limitations specified herein.

C. Installation/Upgrade of Pretreatment System

A Professional Engineer's report per WAC 173-240 must be approved prior to installation or upgrade of pretreatment system.

D. Hazardous Wastes

1. Within 180 days following commencement of discharge or permit issuance, whichever is later, the permittee must notify KCIW, the U.S. EPA, and the Washington State Department of Ecology of any discharge of a listed or characteristic RCRA hazardous waste. Identifying the listed or characteristic RCRA hazardous wastes on the permittee's wastewater discharge permit application serves as notice to KCIW. This is a one-time notification requirement. The contents of the notification may vary according to the quantity of waste discharged. (See "Notification of the Discharge of Hazardous Wastes" in King County Code 28.84.060.)
2. Whenever the U.S. EPA publishes new RCRA rules identifying additional hazardous wastes or new characteristics of hazardous wastes, the permittee must notify KCIW, the U.S. EPA, and the Washington State Department of Ecology if any of these wastes are discharged to the King County sewerage system. Notification must occur within 90 days of the effective date of the published regulation.

E. Continuing Discharge after Permit Expiration Date

This permit does not authorize discharge after its expiration date. If the permittee wishes to continue discharge after the expiration date, an application must be filed for reissuance of this permit at least 180 days prior to the expiration date. If the permittee submits its re-application in the time specified herein, the permittee shall be deemed to have an effective waste discharge permit or authorization until KCIW issues or denies the new waste discharge permit. If the permittee fails to file its re-application in the time period specified herein, the permittee will be deemed to be discharging without a discharge permit after the current permit's expiration date.

S7. MONITORING AND RECORD KEEPING

A. Record Keeping and Retention

1. The permittee shall maintain records relating to all permitted discharges to the King County sewerage system including routine maintenance, waste disposal dates, manifests, self-monitoring reports, analytical lab results, pH monitoring records, and flow records.
2. All records required by the permit shall be available for review at reasonable times by authorized representatives of KCIW.
3. Records of all such testing shall be retained for a period of three years unless litigation or the direction of KCIW requires an extension of that time.

B. Recording of Results

For each measurement or sample taken to comply with this permit, the permittee shall record the following information:

1. Date, exact place, and time of sampling
2. Dates the analyses were performed
3. Person who performed the analyses
4. Analytical techniques or methods used
5. Results of all analyses

C. Representative Sampling

Samples and measurements taken to meet the requirements of this condition shall be representative of the volume and nature of the monitored discharge.

D. Test Procedures

All analyses shall be performed in accordance with procedures established by the administrator of the U.S. EPA pursuant to Section 304(g) of the federal Clean Water Act and contained in 40 CFR Part 136 and amendments thereto or with any other test procedure approved in writing by the U.S. EPA administrator, and/or KCIW. In all cases, except total dissolved sulfide, the detection limit shall be well below the discharge limit. Where 40 CFR Part 136 does not include a sampling or analytical technique for the pollutant in question, sampling and analysis shall be performed in accordance with the procedures set forth in the U.S. EPA publication entitled

Sampling and Analysis Procedures for Screening of Industrial Effluents or Priority Pollutants, April 1977 or *Standard Methods*, latest edition and amendments thereto, or with any other sampling and analytical procedures approved by the U.S. EPA.

E. Lab Accreditation

All self-monitoring data submitted to KCIW that required a laboratory analysis must have been performed by a laboratory accredited by the Washington State Department of Ecology for each parameter tested. This does not apply to field measurements performed by the permittee such as pH, temperature, flow, atmospheric hydrogen sulfide, total dissolved sulfides, settleable solids by Imhoff cone, or process control information.

F. Falsifying Information

The act of knowingly falsifying, tampering with, or knowingly rendering inaccurate any monitoring device, report, or method required pursuant to the federal pretreatment standards, King County Code 28.84.060, or special conditions of this permit shall constitute a violation of this permit, and shall be subject to the legal remedies available under "Revocation of Permit or Authorization" and "Penalties and Enforcements" in King County Code 28.84.060.

G. Toxicity Testing

If KCIW is required by the Washington State Department of Ecology to determine the source of a pattern of acute toxicity pursuant to its treatment plant NPDES permit, the permittee may be required to test its effluent for toxicity according to procedures to be determined by KCIW.

H. Signatory Requirements for Industrial User Reports

Any report required by this permit shall meet the signatory and certification requirements listed in King County Code 28.84.060 and King County Code 28.82.

S8. OPERATIONS AND MAINTENANCE

The permittee shall use waste preventative practices to reduce or eliminate contaminant loading to the King County sewerage system. These practices shall include proper chemical storage, spill prevention and notification, and maintenance and operation of any required pretreatment equipment.

A. Chemical Storage

Chemical solutions, solid chemicals, waste materials, oils, and solvents shall be stored in a manner that will prevent the entry of these materials into the King County sewerage system.

1. Non-compatible chemicals shall be segregated and securely stored in separate containment areas that prevent mixing of incompatible or reactive materials.
2. The permittee shall install shut-off devices to all drains in any hazardous waste storage areas.
3. Chemicals shall be dispensed only in roofed and bermed areas that eliminate potential spills to the King County sewerage system.
4. All empty barrels that have not been cleaned (steam-cleaned or triple-rinsed) shall be adequately stoppered and stored in an upright position.
5. Process tanks shall be located in a bermed, roofed, secured area capable of containing 110 percent of the volume of the largest tank. The permittee shall ensure that process solutions are used and stored in such a manner as to minimize spills of concentrated solutions to the sanitary sewer.

B. Spill or Slug Discharge Control Procedures (See Section S6.A)

1. In the event of a concentrated solution spill such as a tank failure, the permittee shall not discharge any spilled solution to the metropolitan sewer system unless laboratory test results indicate that the substance meets the conditions of this permit and the permittee receives approval from KCIW.
2. Concentrated waste or spilled chemicals that do not meet, or are not treated to meet, the discharge conditions of this permit shall be transported off site for disposal at a facility approved by the Washington State Department of Ecology or appropriate county health department.
3. The permittee shall maintain and inspect all process solution tanks on a regular basis. Any leaks shall be repaired promptly.

4. The permittee shall use spill prevention practices to preclude the discharge of liquids, solids, or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion.
5. All process tanks and chemical storage containers shall be accurately labeled. Emergency phone numbers of King County, the fire department, the permittee's 24-hour corporate contact, and Washington State Department of Ecology shall be posted at all sites that KCIW requires.
6. The permittee shall ensure that concentrated waste from process tank filters and other equipment is prevented from entering the sanitary sewer unless it is treated to meet the discharge conditions of this permit.
7. The permittee shall maintain and use product recovery options such as drag-out rinses for each plating bath or process as required to meet the discharge conditions of this permit. Recovered materials shall not be discharged to the sanitary sewer unless they are treated to meet the discharge conditions of this permit.

C. Pretreatment Equipment Maintenance and Operations

1. All pretreatment systems used to bring the permittee's discharge into compliance with King County's discharge limitations shall be maintained continuously in satisfactory and effective operations by the permittee at the permittee's expense, and shall be subject to periodic inspections by authorized KCIW personnel. These systems shall be attended at all times during discharge to the King County sewerage system. In the event that such equipment fails, the permittee must notify KCIW immediately and take spill prevention precautions.
2. The permittee shall not initiate construction or modification of a pretreatment system prior to receiving KCIW approval of plans and specifications per WAC 173-240. In addition, KCIW may require an engineering report and an operations and maintenance manual.
3. KCIW shall be contacted before the beginning of any limited experimental modifications or new equipment testing that could reasonably be expected to affect effluent quality or quantity. This experimental work shall proceed only after securing written approval from KCIW and following the permittee's adherence to any applicable special conditions.
4. The effluent limitations specified in this permit are to be met by treatment of the wastes for pollutant removal. The use of municipal water, groundwater, seawater, stormwater, or other materials, including waste products, for the purpose of diluting a waste to achieve those limitations is prohibited.

5. The permittee shall adequately maintain and efficiently operate all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

D. Water/Sewer Meter Requirements

The permittee shall obtain or maintain access to a water or sewer meter that can provide accurate information regarding industrial process wastewater and cooling water discharge to the sewer. Another method of volume determination may be used only upon approval by KCIW.

E. Solid Waste

1. The permittee shall handle and dispose of all solid waste material (as defined in WAC 173-304-100) not otherwise authorized by this permit in such a manner as to prevent its entry into the King County sewerage system.
2. All covers, screening devices, sumps, hoppers, conveyors, and other facilities provided for the recovery and handling of solid wastes are to be maintained in an efficient operating condition.

F. Stormwater

Stormwater, surface water, groundwater, and roof runoff shall be excluded, except where specifically authorized by this permit or King County Code 28.84.060, from the King County sewerage system.

S9. GENERAL CONDITIONS

- A.** The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Whenever the permittee refuses to take corrective action or continues the violating condition, the imposition of civil penalties including fines up to \$10,000 for each violation per day and/or termination of this permit may result. Termination of this permit may require disposal of the industrial waste in some manner other than into the public sewer, private sewer, or side sewer tributary to the King County sewerage system at the expense of the person holding the permit. Any person causing damage to a public sewer or treatment facility by discharges in violation of the terms and conditions of this permit shall be liable for any such damage incurred by King County as a result of such damage or discharge. Where criminal enforcement action is considered in a particular case, that case may be referred to state or federal authorities.
- B.** The diversion or bypass of any discharge from any pretreatment facility utilized by the permittee to maintain compliance with the terms of this permit is prohibited except where unavoidable to prevent loss of life or severe property damage. The procedure outlined in Section S4.D shall be followed in case of such a diversion or bypass.
- C.** After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its terms for those causes cited in King County Code 28.84.060.
- D.** If a toxic standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the federal Clean Water Act for a toxic pollutant, which is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, this permit will be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee shall be so notified. Section 307(a) requires that the administrator of the U.S. EPA shall promulgate effluent standards (or prohibitions) for toxic pollutants that he or she has listed as such.
- E.** Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.
- F.** All requirements and ordinances of the U.S. EPA and the Washington State Department of Ecology pertaining to hazardous and toxic wastes, disposal facilities, and discharge of wastes into the King County sewerage system, are hereby made a condition of this permit.

S10. WASHINGTON STATE DEPARTMENT OF ECOLOGY CONDITIONS

This permit does not constitute authority for discharge into waters of the state. Any such discharge is subject to enforcement action by the Washington State Department of Ecology.

Upon issuance of this permit, the permittee assumes the responsibility to abide by the following environmental requirements and any other appropriate regulations stipulated by the Department of Ecology. **The Department of Ecology retains authority to enforce these permit conditions (RCW 70.105 and RCW 90.48).**

A. Conditions to Protect Ground and Surface Waters

1. Contaminated waters or wastes shall not be discharged to state waters.
2. Boiler blow down and water shall not be discharged to state waters.
3. Solid chemicals, chemical solutions, waste materials, oils, and solvents shall be stored in a manner that will prevent the entry of these materials into state, ground, or surface waters, and in a manner that will prevent spillage by overfilling, tipping, or rupture.
4. The permittee shall handle and dispose of all solid waste material in such a manner as to not cause any adverse effect on ground or surface water quality.
5. Filtered solids or sludge shall be stored in such a manner that drainage from this material is prevented from either draining across public rights-of-way or entering the local storm drain system or the groundwater.
6. No emulsifiers or dispersants are to be used on waters of the state without approval from the Department of Ecology.
7. If corrosive processing solutions are used, the processing/plating floor shall be sealed with corrosion resistant material that prevents leakage. This coating shall be repaired or replaced as needed.

Questions regarding the implementation of conditions outlined in Section S10 should be directed to the regulatory authority, the Washington State Department of Ecology, at 425-649-7000 (Northwest Regional Office, 3190 160th Avenue SE, Bellevue, Washington 98008-5452).



Industrial Waste Program Company Fact Sheet

October 24, 2018

COMPANY INFORMATION

Company/Agency name: King County Solid Waste Division - Cedar Hills Landfill
Facility address: 16645 228th Avenue SE, Maple Valley, WA 98038
Mailing address: 201 S. Jackson Street, Room 701, Seattle, WA 98104
Treatment plant: South Treatment Plant
Corp. contact & phone: Pat McLaughlin, 206-477-4501
Site contact & phone: Scott Barden, 206-263-8863
Company/Agency type: Solid Waste - Landfill
Days operating: 365
SIC number: 4953
EPA ID number: WAD 047848122
Compliance investigator: Greg Newborn

PERMIT INFORMATION

Permit number: 7842-03
Effective date: October 26, 2018
Expiration date: October 25, 2023

Description of sample sites, limit types, and discharge volumes:

Sample Site No.	Description	Limit Type	Maximum Discharge Volume (gallons per day)
A9002	King County Maintenance Hole Number R10-52	King County Local Limits	-0-
A90021	Cedar Hills Leachate/Effluent Pump Station Wet Well		2,700,000

MONITORING FEE PARAMETER

Sample Site No.	Fee Type
A9002	Heavy Metals Fee Parameter (ICR)

PERMIT PROCESSING

Permit number: 7842-03

Action	Date
Application due	April 28, 2018
Application received	April 27, 2018
Application sent to local sewer agency	August 07, 2018
Inspection date	January 31, 2018
Final publication date	August 13, 2008
Published volume	3.5 million gallons per day
Draft issued	October 3, 2018
Final issued	October 24, 2018

COMMENTS

Nature of Business

The Cedar Hills Regional Landfill (CHRL) is a municipal landfill operated by the King County Department of Natural Resources – Solid Waste Division (KC SWD). The facility accepts residential refuse from its service area for burial at the site.

Sources of Wastewater

Industrial wastewater at CHRLF consists of leachate generated by degradation of the garbage in the landfill, infiltration of stormwater, and contaminated stormwater runoff from the active areas of the landfill. Sources of domestic wastewater that are conveyed to the CHRLF treatment system include wastewater originating from SWD administration and operations buildings, the Passage Point transitional housing facility, and the Bio Energy Washington facility.

Treatment System

A system of piping and ponds collect landfill leachate and contaminated industrial stormwater. This wastewater then flows into two (2) aeration basins, and once aerated, flows into the wet well at the Leachate Effluent Pump Station (LEPS). The electric powered pumps (with diesel-power back-up) at the LEPS convey the wastewater into a KC SWD-owned sewer force main, which then flows for approximately 6.7 miles where it enters King County's Cedar River Trunk Interceptor.

Compliance History and KCIW Awards

The recent compliance history at the facility has been less than satisfactory. KCIW bases this rating on a recent review of historical heavy metal mass loading data (lbs/day). The review was initiated as an outcome of temporary permit modifications which KCIW granted to CHRLF during various short-term periods in 2016 through 2018 for maintenance operations at CHRLF leachate lagoons. During this review and as part of the permit renewal process, KCIW found that arsenic mass loading limits were exceeded on 56 occasions and the loading limit for chromium was exceeded on 4 occasions between October 2, 2013, and May 14, 2018. In regard to identified self-monitoring mass loading exceedances, CHRL did not notify KCIW, collect additional samples, or submit the required 14-day reports for arsenic (October 2, 2013 to March 13, 2018) and chromium (August 27, 2016). Pursuant to King County Code 28.82.810, it was

determined that CHRL was in significant non-compliance (SNC) for chronic and technical review criteria discharge violations of arsenic, but not for chromium. Failure to accurately report noncompliance for the period October 2, 2013 – March 13, 2018, also placed CHRL in SNC. Accordingly, KCIW sent a Notice of Violation (NOV) to KC SWD on July 12, 2018.

Enforcement actions following the NOV are currently being drafted and will be addressed separately and outside of this permit.

KCIW awards during the past five years:

Year	Award
2013	None
2014	Gold
2015	None
2016	None
2017	None

Trends in Discharge of Pollutants of Concern

The pollutants generally found at the site are by-products of both refuse decomposition into landfill leachate and surface infiltration of stormwater. Pollutants of concern include:

- Heavy metals
- Atmospheric sulfides - A9002; total dissolved sulfides are monitored at site A90021 as a precursor to atmospheric sulfides

(See Figures 1 – 6 at the end of this fact sheet for visual representations of the data)

During the past year, a KCIW review of self-monitoring sampling data showed a rise in arsenic mass loading levels at the facility dating as far back to 2013. From October 2, 2013, through May 14, 2018, KC SWD exceeded the mass loading limits for arsenic on 56 occasions (Figure 3) as well as for chromium on 4 occasions (Figure 4). In regard to atmospheric hydrogen sulfide, KC SWD exceed the limit on two occasions. Although there were mass loading exceedances for arsenic and chromium, the CHRL facility did not exceed the daily discharge volume limit.

Other Parameters (Years 2013-2018)

PCBs – (Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260) Sampling data shows that all of these analytes were reported as below the method detection limit, with one exception. The sample collected on November 14, 2017 indicated Aroclor 1242 was quantified at 0.076 ug/L, which is below the RDL for this analyte.

Total Dissolved Sulfides – All samples collected were reported as below the method detection limit of 0.1 mg/L

Semi-volatile Organics – 1 sample was collected during the past five years and only 1 target analyte (Benzyl Alcohol) was detected and was reported as <RDL. All other detected analytes

were non-targeted tentatively identified compounds (TICs) and their estimated values were reported by the King County Environmental Laboratory with mid-range confidence (Qualifier J2).

Slug and/or Spill Control Plan

Because this facility discharges very high daily volumes of wastewater that could have adverse impacts on the POTW, KCIW requires the site to submit a slug/spill control plan. At a minimum, this plan should describe the procedures in place to prevent spills and discuss mitigation measures if they do occur.

KC SWD submitted an updated plan with their current permit renewal application. In addition, at the request of KCIW, they provided the following supplemental information:

- General facility information
- Facility layout flow diagrams
- Inventory of process tanks and new and waste chemicals stored on site
- Description of discharge practices, including non-routine batch discharges
- Procedures for immediately notifying KCIW of spills or slug discharges and for follow-up written notification within five days
- Inventory of spill and leak prevention equipment
- Operational and preventative maintenance measures used to prevent a spill or slug discharge
- Employee Safety and Training Program content and schedule
- Description of previous slug or spill discharges that have occurred at your facility and corrective actions implemented to prevent recurrence

Self-Monitoring Requirements

Under this renewed permit, KC SWD will monitor the following parameters at the frequencies indicated:

- Heavy metals (Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver and Zinc) - Weekly
- Heavy metal loadings – Weekly. Because of the large maximum daily discharge volume in the permit (2.7 MGD), CHRL will need to analyze samples with detection limits that are sufficiently low for the metal parameters to ensure that metal loading limits are not exceeded at high daily discharge volumes. For example, during 2013 to 2018, KCIW compliance monitoring using EPA Method 200.7 (ICP) had arsenic results with method detection limits (MDLs) of 0.025 mg/L. At this MDL, a discharge above 1.295 MGD would produce a value that exceeds the arsenic loading limit of 0.27 lbs/day (Calculation: $0.025 \text{ mg/L} \times 8.34 \text{ lbs/MG} / \text{mg/L} \times 1.295 \text{ MGD} = 0.27 \text{ lbs/day}$).
- Discharge volume - Daily
- pH - Weekly
- Total soluble sulfides (Dissolved Sulfides) - Monthly
- Total Monthly flow - Each Month
- Atmospheric hydrogen sulfide - One week per month (at site A9002)

King County Compliance Monitoring Program

Permitted under King County Local Limits, compliance monitoring at the facility addresses contaminants of concern based on the general characteristics of municipal landfill discharges.

With this renewed permit, KCIW will increase the compliance monitoring frequency at this facility from semi-annually in the previous permit to a quarterly sampling schedule in this permit because CHRL represents the largest volume discharger that KCIW regulates and due to CHRL recent compliance history and trends in pollutants of concern. For this permit cycle, KCIW anticipates sampling on a quarterly basis for the below parameters (except where noted).

- Heavy metals (Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver and Zinc)
- Daily discharge volume
- pH
- Total soluble sulfides (Dissolved Sulfides)
- Total PCBs (Aroclor 1016, 1221, 1232, 1242, 1248, 1254, 1260) (semi-annually)
- Semi-volatile Organics [BNA] (once every 5 years)
- Atmospheric hydrogen sulfide (one event per year at sample site A9002)

Monitoring Methods

Physical samples - CHRL uses time proportional composite sampling for daily average limits. During the last permit cycle, CHRL evaluated composite sampling methods (time versus flow proportional) and provided KCIW with evidence in support of time proportional sampling. KCIW agreed with their findings to continue using time-based composite sampling.

pH monitoring –Weekly Grab pH samples are collected at this facility

Flow monitoring - Measured effluent flow volumes match pump operation intervals with the design flow ratings of the pumps

Special Conditions

The following special conditions are part of the renewed permit:

(S3.A) A continuing special condition that permits CHRL to occasionally discharge landfill leachate hauled to the facility from other KC-SWD facilities.

(S3.B) Requires CHRL to submit an Annual Facility Sampling and Monitoring Report on all non-required discharge sampling parameters. This is being required because of the significant changes in wastewater chemistry (i.e., arsenic and chromium) during the last permit cycle, the large maximum daily discharge volume allowed under permit (2.7 MGD), and a need for WTD to ensure that wastewater treatment facilities are protected. This special condition is intended to clarify when non-required sampling at locator A90021 is to be reported.

(S3.C) Provides the requirements for flow meter calibration, verification and recordkeeping.

(S3.D) Continues the requirement to keep records on inspections, cleaning, and maintenance of the discharge structure adjacent to King County maintenance hole # R10-52.

(S3.E) A continuing special condition addressing screening levels for soluble sulfide

Limit Calculations

Since this facility is not subject to any federal pretreatment categorical standards, its discharges are subject to King County Local Limits for discharges over 5,000 gallons per day. Per King County Local Limits (King County Public Rule PUT 8-13-1), and following KCIW procedures, mass loading limits for metals are also applied to the discharge to ensure that the influent and biosolids at WTD South treatment plant are protected. It is important to note that at the maximum discharge volume, the concentration of metals parameters will have to be less than the daily maximum limit concentrations in order to comply with the mass loading limits.

Changes since the Last Permit

There are several changes to this renewed permit. One of the changes is based on recent compliance issues associated with arsenic which wasn't a required parameter for self-reporting in the previous permit. This parameter has been added as a weekly self-monitoring parameter. Due to the large permitted discharge volume and need to understand other metal loadings, KCIW is requiring self-monitoring for mercury and silver. For this permit, metals mass loading values are to be reported on the SMR form to ensure better tracking and reporting of permit exceedances. In order to clarify when non-required sampling results from locator A90021 are to be reported, a special condition has been added to specify an annual report and associated due date.

Comments

Publication: NA

Application: None

First draft: The King County Wastewater Treatment Division is the local sewer agency for the discharges from CHRL and had no comments on the draft permit.

On October 16, 2018, King County Solid Waste Division hand-delivered to KCIW thirteen total comments on the draft permit (6) and fact sheet (7). Listed below are the comments and KCIW's italicized responses.

Permit Comments

1. Page 1, Phone Numbers

"Please change the Business Phone Number to 206-477-4466 (same as the Emergency 24-hour number)."

KCIW Response: The business phone number has been revised, per KC SWD's request.

2. Page 6, S3B

"Annual Facility Sampling and Monitoring Report of Non-required Sampling Parameters SWD proposes an alternative report due date of June 30 annually."

KCIW Response: Consistent with the annual reporting deadline for other Permittees, KCIW has kept the March 15th of each year as the required submittal deadline.

KCIW uses the annual facility reporting to gather data for our evaluation of facility operations, wastewater discharge trends and compliance requirements for various types of facilities. KCIW established March 15th of each year as the standard due date for these reports to:

- *Give permittees sufficient time to submit the report*
- *Provide KCIW with the earliest possible opportunity to evaluate these reports, and to create relevant and timely action plans in response to emerging concerns.*

KCIW's responses may include, but are not limited to, permitting decisions, sampling and monitoring activities, or compliance actions aimed at protecting worker safety, our regional environment, King County POTWs, and biosolids quality.

3. Page 11, S4 A. 1 Footnote 3

"To minimize confusion regarding required monitoring frequency, SWD suggests changing the last sentence of footnote 3 to "Each month, one weekly total soluble sulfide sampling event should coincide with the atmospheric hydrogen sulfide sampling at Sample Site A9002. "

KCIW Response: *Thank you for your comment. The footnote has been revised to provide clarification.*

4. Page 14, S4.C Violation Criteria

"KCIW is aware of the current restraints of our daily discharge volume due to the presence of specific heavy metals. In order to ensure there was no release (overtopping) from our leachate lagoons and/or other secondary storage ponds, we have had to implement preventive measures and discharge wastewater in volumes that at times may have caused us to exceed some of our metals loading limits. In none of these instances was there also an exceedance in our daily maximum discharge volume. It is our opinion that the consequence of overtopping and releasing wastewater to the environment is significantly greater than temporarily exceeding a metals loading limit. It will be necessary for us to continue implementing these prevention practices (thus, potentially exceeding metals loading limits) until a wastewater pre-treatment system can be designed and installed. Our standard practice has been to notify KCIW a minimum of 24 hours in advance of any scheduled discharge that may result in a metals loading exceedance. We request there be included in the permit a provision, in this or other section, that addresses the need for this to occur, along with the notification protocol that we must follow."

KCIW Response: *KCIW encourages SWD to continue to employ best management practices and procedures it deems necessary to both protect landfill infrastructure and comply with KCIW and other permit limitations and requirements. This must be accomplished without the benefit of any permit provision or condition that directly conflicts with established violation criteria and notification requirements, as approved by Washington Department of Ecology. KCIW cannot presuppose that discharge violations*

are going to occur in the future nor can KCIW provide permit language that allows or authorizes KC SWD to violate their discharge permit.

5. Page 14, S4.D.1.b Response when Violations are Detected

“SWD proposes appending this item with the following statement: Routine samples required under S4 A. 1, if collected within 14 days of becoming aware of a violation, may be used to satisfy this requirement.”

KCIW Response: *The permit language as written is standard permit language and we believe that the permit language does not require revision. KCIW acknowledges and agrees that routine samples may be used for purposes of verification and compliance. Specifically, KCIW will evaluate any sample taken within 14 days of a violation as proof of a return to compliance whether or not the sample is collected in response to the original violation or if it is collected as part of required self-monitoring. This process is supported by KCIW’s experience that the overall timeframe in which a violation occurs, is reported, and KCIW starts an enforcement action, generally happens after one or more subsequent self-monitoring samples have been collected and results reported to KCIW.*

6. Page 23, S8C.1 Attendance at pretreatment systems

As written, this item indicates “[Pretreatment] systems shall be attended at all times during discharge to the King County Sewerage System.” To clarify the expectation of “attended at all times”, SWD recommends adding a statement such as “Ability to monitor these systems remotely and respond to issues within a reasonable amount of time shall satisfy this requirement”

KCIW Response: *The language of S8C.1 is standard permit language and is intended to address the multitude of pretreatment system configurations used by industrial dischargers. Based on information KCIW has gained from SWD in permit applications, annual site inspections, and permitting guidance meetings, SWD uses the following systems:*

- *Operational control protocols*
- *Alarms and communications capabilities*
- *Supervisory Control And Data Acquisition (SCADA)*

KCIW is satisfied that these systems, when used appropriately, are sufficient to alert SWD of operations in real-time, identify anomalies, and prompt SWD to make a timely response to KCIW. These systems meet the intent of “attended at all times”. KCIW does not believe revision to the standard language is necessary.

Company Fact Sheet Comments

7. Company Fact Sheet, Page 1, Site Contact

“Please change the site contact information from Colleen Christensen to Scott Barden, 206-263-8863.”

KCIW Response: Per SWD's request, KCIW has revised the Fact Sheet to include Mr. Scott Barden as the site contact.

8. Company Fact Sheet, Page 2, Sources of Wastewater

The paragraph in this section is misleading and provides false information. Please replace it with the following text: "Wastewater at CHRLF consists of leachate generated by degradation of the garbage in the landfill, infiltration of stormwater, contaminated stormwater runoff from the active areas of the landfill, and wastewater originating from SWD administration and operations buildings, the Passage Point transitional housing facility, and the Bio Energy Washington (BEW) facility."

KCIW Response: KCIW believes that the information describing the sources of wastewater in the draft fact sheet was not misleading or false. This permit represents an industrial wastewater permit. Accordingly, the sources of wastewater stated in the draft fact sheet were particular to only industrial origins. The other sources mentioned by SWD are sanitary (domestic) sources of wastewater and therefore were not included in the draft fact sheet description. KCIW has added these sources of wastewater as domestic in nature to the fact sheet, per SWD's request. Please see the revised fact sheet language.

9. Company Fact Sheet, Page 2, Treatment System

"The pumps at LEPS are electric and not diesel-powered; please change verbiage."

KCIW Response: Thank you for the correction. The language has been revised to reflect the fact that the LEPS pumps are electric and mention that they have a diesel back-up system.

10. Company Fact Sheet, Page 3, Trends in Discharge of Pollutants of Concern

"We believe that Figures 1-6 are not needed. They are confusing and serve no purpose. Please remove all six figures."

KCIW Response: Consistent with other Significant Industrial User (SIU) permits, KCIW uses these graphs to effectively illustrate the trends of contaminants of concern for the periods indicated. KCIW believes that they are informative, important and present contaminant trends succinctly. Therefore, the graphs have been retained.

11. Company Fact Sheet, Page 4, Self-Monitoring Requirements

- a. pH is measured weekly, please change from daily to weekly.
- b. Total flow is monitored daily; please add.
- c. Please do not abbreviate Total Soluble Sulfides. The abbreviation of TDS is also used as an abbreviation for Total Dissolved Solids and TSS is used as an abbreviation for Total Suspended Solids; this can create confusion."

KCIW Response: *The self-monitoring frequency for pH has been changed to reflect the permit requirement (weekly). The entry “total flow – monthly” refers to the sum of all daily discharge volumes for a particular month and has been clarified as “Total monthly flow” with the frequency described as “each month”. The language has been changed to reflect the parameter as Total Dissolved Sulfides without using the abbreviation “TDS”.*

12. Company Fact Sheet, Page 5, King County Compliance Monitoring Program

“Please do not abbreviate Total Soluble Sulfides. The abbreviation of TDS is also used as an abbreviation for Total Dissolved Solids and TSS is used as an abbreviation for Total Suspended Solids; this can create confusion”

KCIW Response: *Comment noted. Please see response to comment # 11 above. This portion of the Fact Sheet has been changed.*

13. Company Fact Sheet, Page 5, Monitoring Methods

“pH is monitored weekly, please change from daily to weekly.”

KCIW Response: *Comment noted. Please see response to comment # 11 above. This portion of the Fact Sheet has been changed.*

Second draft: N/A

Safety

This is an active landfill with heavy equipment, uneven or inclined surfaces, drainage ponds, and wind-blown garbage and dust. Minimum protective equipment should be a safety vest (required by King County SWD), steel-toe shoes, hardhat, and eye protection. Traffic is a concern due to heavy equipment movements or possible construction activities on the site’s roads. KCIW personnel must follow all traffic signage while driving around the site.

Fig. 1 – Daily Averages for Copper, Nickel and Zinc

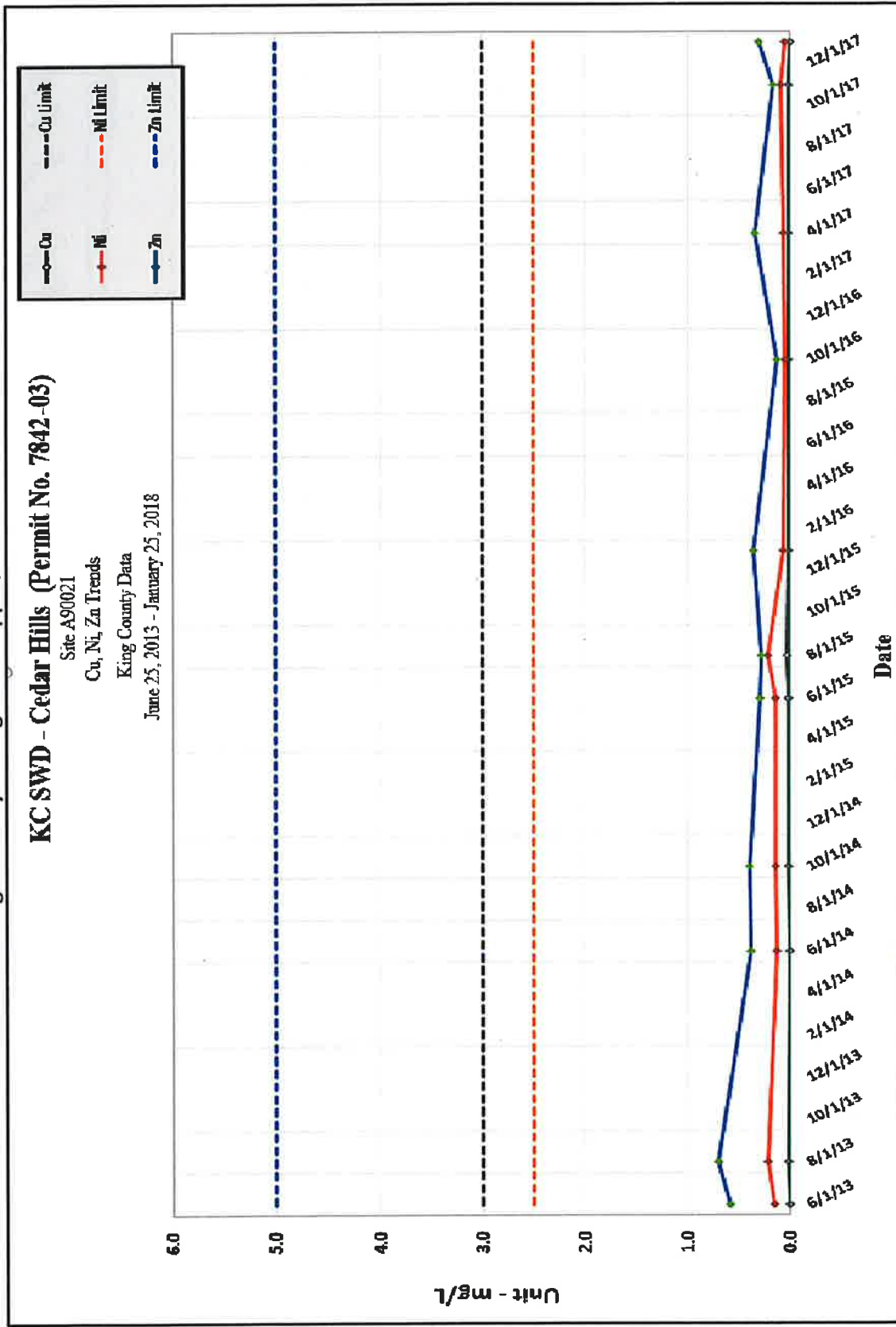


Fig. 2 – Daily Averages for Arsenic and Chromium

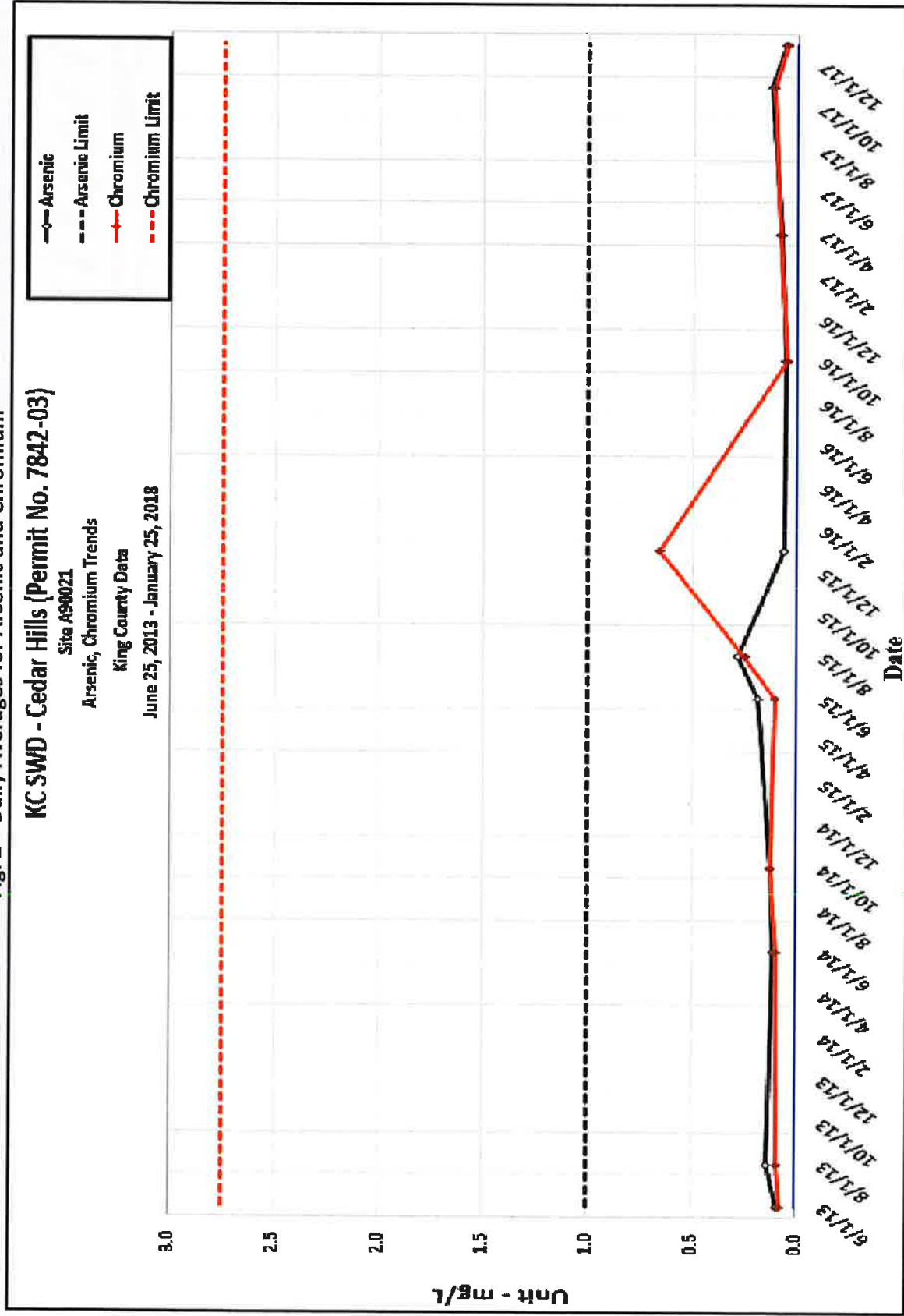


Fig. 3 – Historical Arsenic loadings (2013 -2018)

KC SWD - Cedar Hills Landfill (Permit No. 7842-03)

Site A90021

Arsenic Daily Loading, Arsenic Loading Limit Trends

October 2, 2013 - May 14, 2018

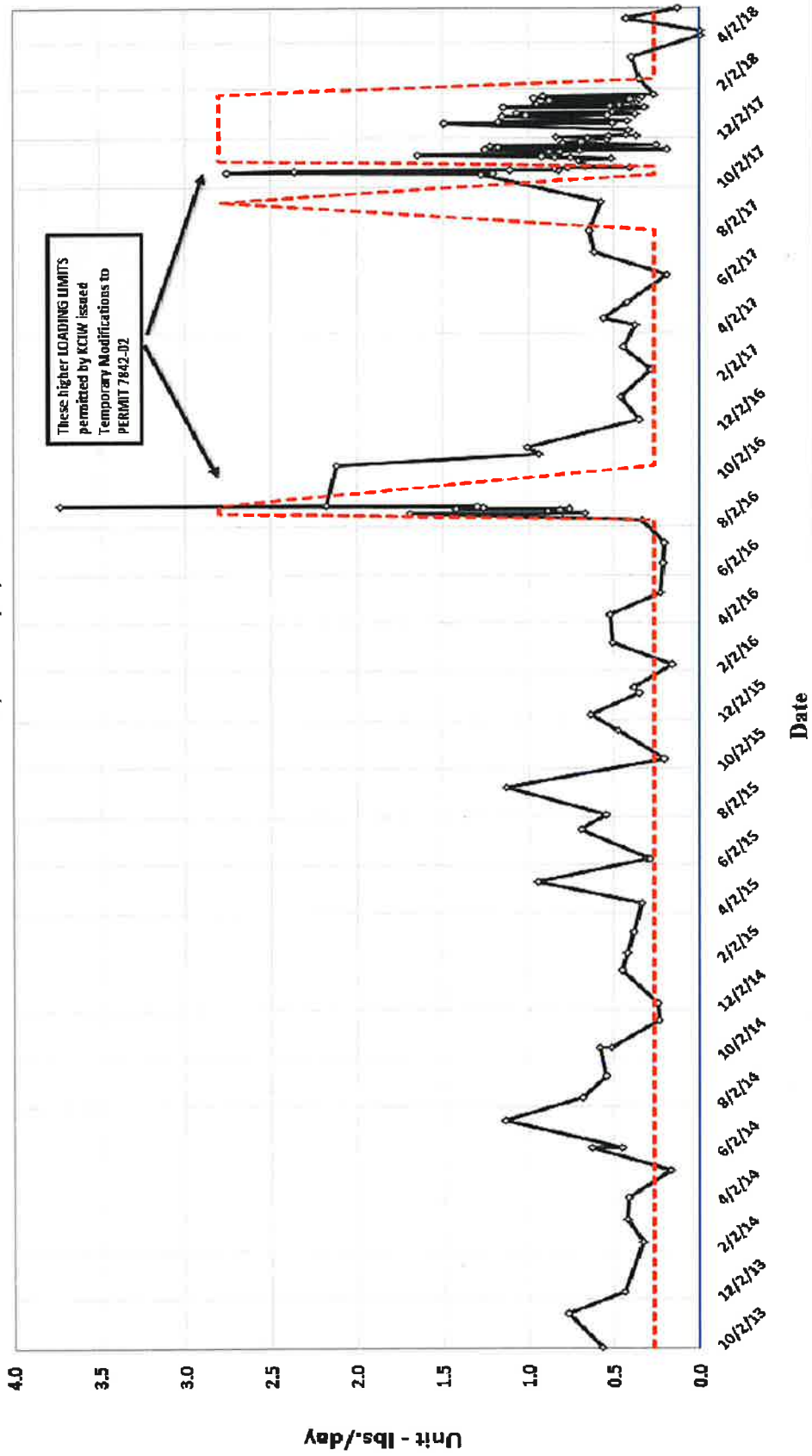


Fig. 4 – Historical Chromium Loadings (2013 – 2018)

KC SWD - Cedar Hills Landfill (Permit No. 7842-03)

Site A90021

Chromium Daily Loading, Chromium Loading Limit Trends

October 2, 2013 - May 14, 2018

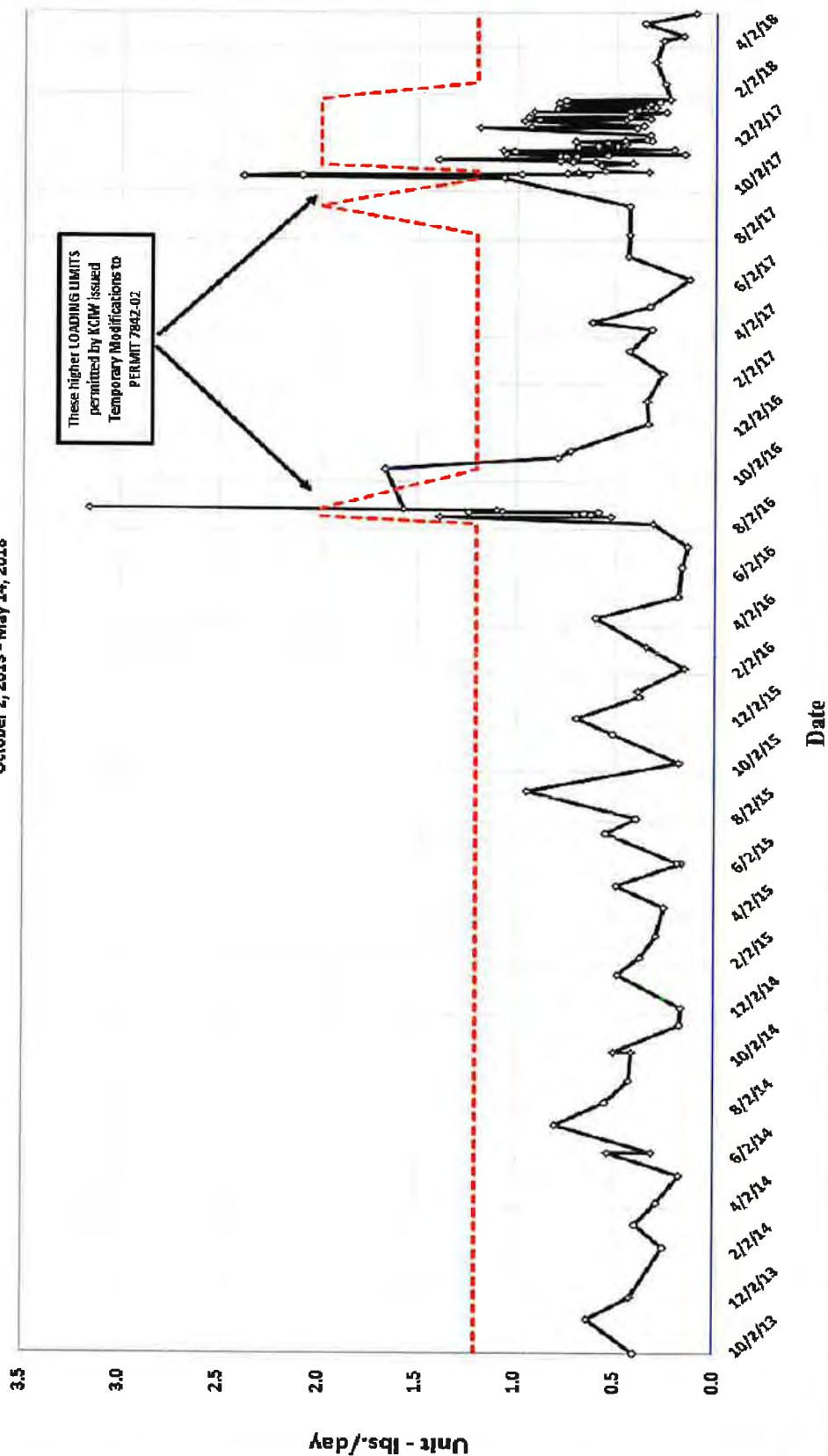
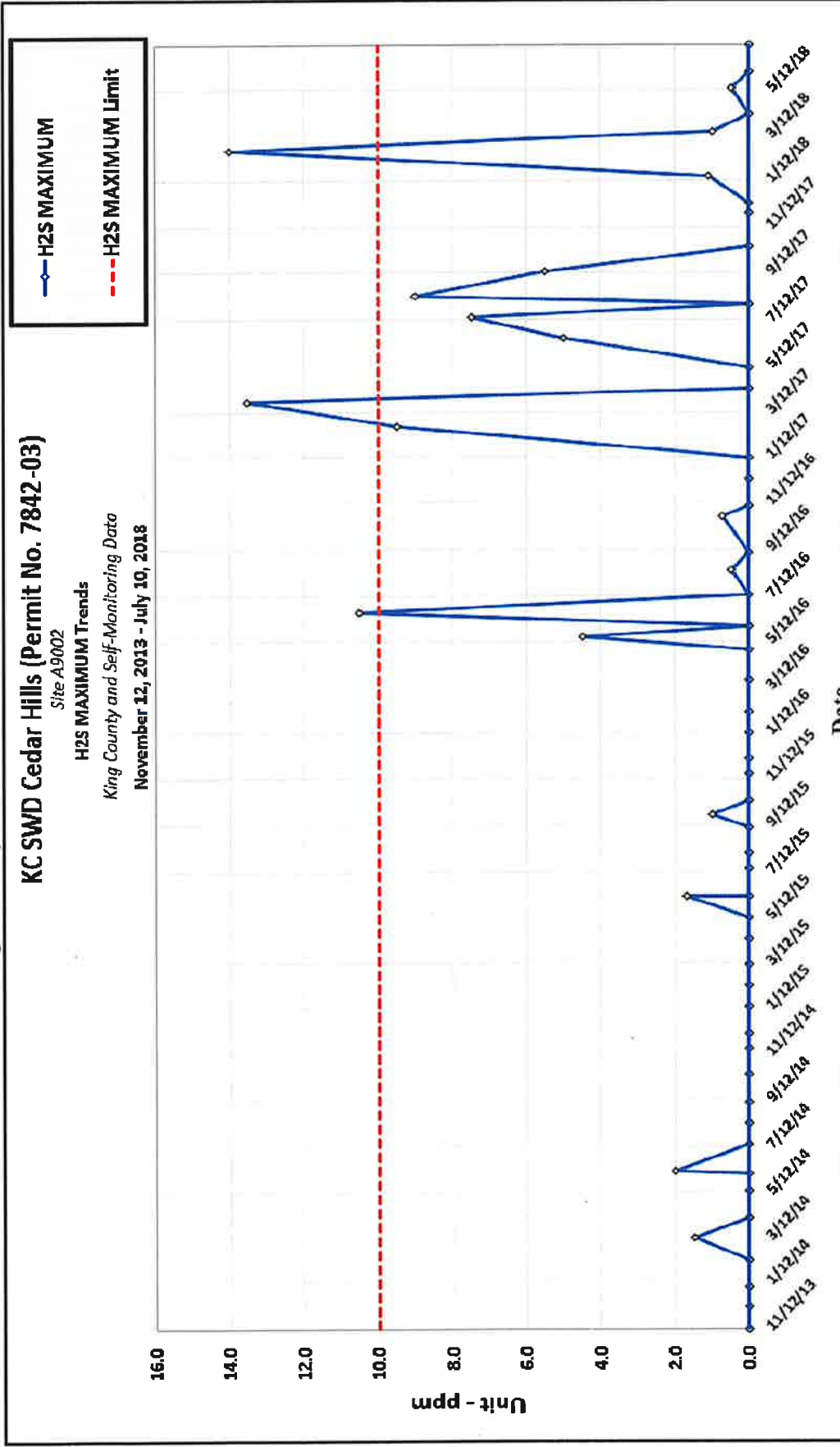
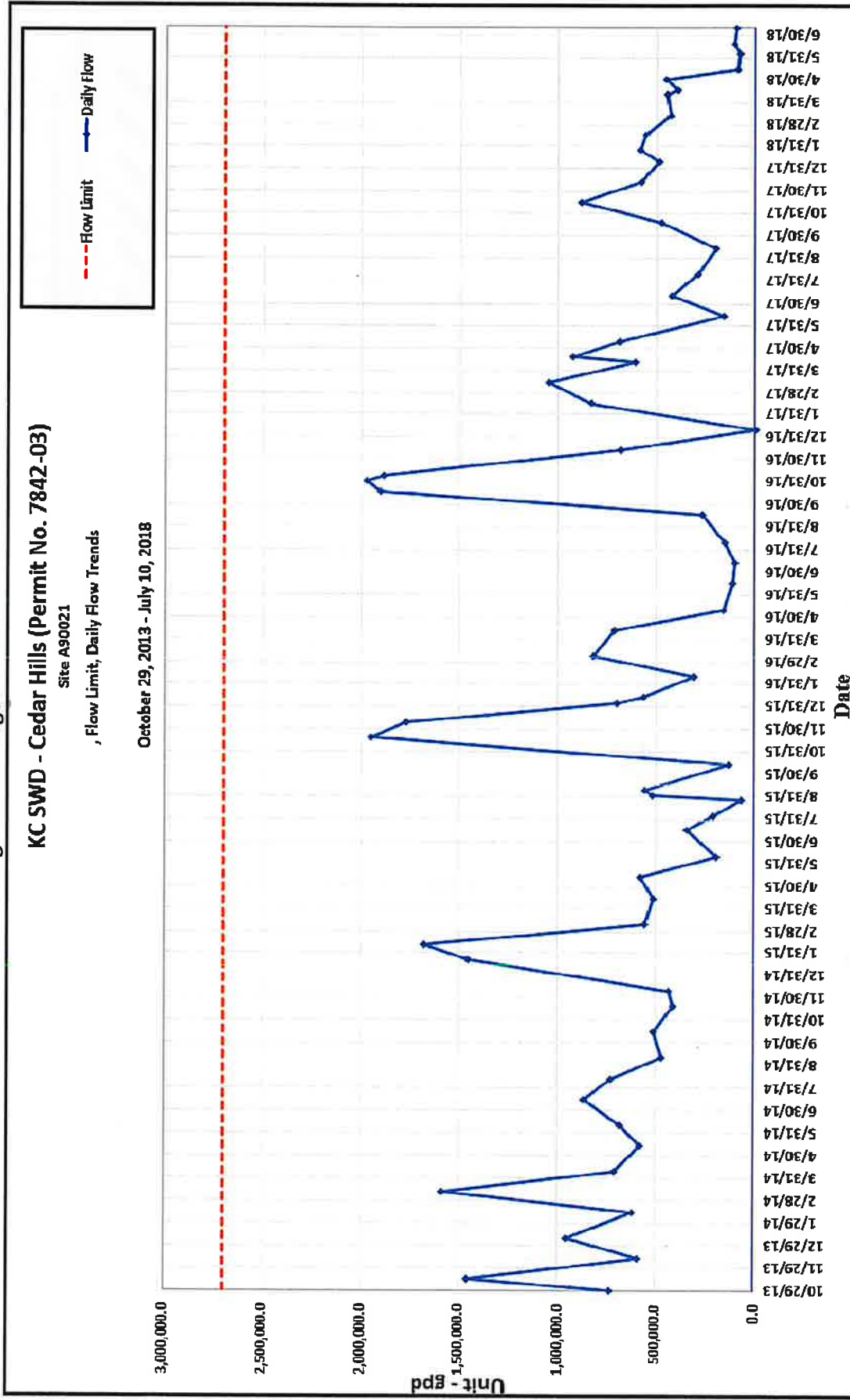


Fig. 5 – Daily Maximum H₂S (Atmospheric) *



* NOTE: of the (3) exceedances above identified as NOV's, CHRL submitted 14-day reports for (2); KCIW rescinded the 3rd NOV because CHRL provided proof there was no discharge at the time elevated H₂S level was recorded

Fig. 6 – Discharge Flow Profile





Send to: King County Industrial Waste Program
201 S. Jackson Street, Suite 513
Seattle, WA 98104-3855
Phone 206-477-5300 / FAX 206-263-3001
Email: info.KCIW@kingcounty.gov

Company Name: King County SWD - Cedar Hills Landfill
Sample Site No. A90021
Permit No.: 7842-03

Please Specify Month & Year: **Month:** 20____

*** Sample Types (C) Composite (G) Grab (BC) Batch**

Sample Date (circle)	Sample Type*	pH	Arsenic, As		Cadmium, Cd		Chromium, Cr		Copper, Cu		Total Soluble Sulfides LIMIT - 0.1	Daily Industrial Flow LIMIT 2,700,000 (GPD)	Notes (Indicate Batch Discharge where applicable)
			LIMIT 1.0	LOAD 0.27	LIMIT 0.5	LOAD 0.17	LIMIT 2.75	LOAD 1.20	LIMIT 3.0	LOAD 6.89			
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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.

Signature of Principal Executive or Authorized Agent _____

Date _____

Monthly Min pH

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PLEASE CIRCLE ALL PERMIT VIOLATIONS

Due Date: Monthly report is due by the 15th each month.



Industrial Waste Program Monthly Self-Monitoring Report

Page 2 of 2

Send to: King County Industrial Waste Program
201 S. Jackson Street, Suite 513
Seattle, WA 98104-3855
Phone 206-477-5300 / FAX 206-263-3001
Email: info.kciw@kingcounty.gov

King County

Company Name: King County SWD - Cedar Hills Landfill Sample Site No. A90021 Permit No.: 7842-03

Please Specify Month & Year: _____ Month: 20 This form is available at www.kingcounty.gov/industrialwaste.

* Sample Types (C) Composite (G) Grab (BC) Batch All units are mg/l unless otherwise noted. **LOADING units are Pounds per day (lbs./day)**

Sample Date (circle)	Sample Type*	Lead, Pb		Mercury, Hg		Nickel, Ni		Silver, Ag		Zinc, Zn		Notes (indicate Batch Discharge where applicable)
		LIMIT 2.0	LOAD 1.2	LIMIT 0.1	LOAD 0.06	LIMIT 2.5	LOAD 2.49	LIMIT 1.0	LOAD 0.44	LIMIT 5.0	LOAD 12.31	
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Signature of Principal Executive or Authorized Agent _____
Date _____



Industrial Waste Program Monthly Self-Monitoring Report

King County

H2S Monitoring

Send to: King County Industrial Waste Program
201 S. Jackson Street, Suite 513
Seattle, WA 98104-3855
Phone 206-477-5300 / FAX 206-263-3001
Email: info.kciw@kingcounty.gov

Company Name: King County SWD - Cedar Hills Landfill

Sample Site No. A9002

Permit No.: 7842-03

Please Specify Month & Year: Month: 20

This form is available at www.kingcounty.gov/industrialwaste.

All units are PPM unless otherwise noted.

Sample Date (circle)	H ₂ S – Air MAX	H ₂ S – Air Average	Active Discharge during MAX H ₂ S reading? (Y/N)	Notes
1				<div>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.</div> <div>Signature of Principal Executive or Authorized Agent</div> <div>Date</div>
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Monthly MAX
Monthly AVG

PLEASE CIRCLE ALL PERMIT VIOLATIONS

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