

	State of Washington Department of Ecology Northwest Regional Office WATER COMPLIANCE INSPECTION REPORT	substitute for OMB No. 2040-0057 and EPA form 3560-3 (Rev. 9-94) (last file update 12-95.)
---	---	---

Section A: National Data System Coding (i.e., PCS)

Transaction Code 1 N 2 5	NPDES # 3 WA002928-9 11	yr/mo/day 12 06/12/05 17	Inspection Type 18 S	Inspector 19 S	Fac Type 20 1
------------------------------------	-----------------------------------	------------------------------------	--------------------------------	--------------------------	-------------------------

Remarks

Inspection work days 67 4.0 69	Facility Self-Monitoring Evaluation Rating 70 5	BI 71 N	QA 72 N	Reserved 73 _____ 74 _____ 75 _____ 80 _____
--	---	-------------------	-------------------	---

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) (1) City of Bremerton West Plant, 1600 Oyster Bay Road, Bremerton, WA 98312 360-479-4646 (2) City of Bremerton East Plant, 2475 Stephenson Avenue, Bremerton, WA 98310	Entry Time/Date 9:30 AM 12/05/06	Permit Effective Date 09/28/06
	Exit Time / Date 3:00 PM 12/05/06	Permit Expiration Date 09/28/11

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Pat Coxon, Wastewater Division Manager John Bykonen, WWTP Operations Jackie Horton, Laboratory Supervisor	Other Facility Data Ecology Staff On-Site Amy Jankowiak, Inspection lead Mike Dawda, Inspection co-lead Greg Stegman
Name, Address of Responsible Official/Title/Phone and Fax Number. Cary Bozeman, Mayor Phil Williams, Director of Public Works and Utilities 3027 Plymup Drive	
Phone Number 360-473-5315 Fax 360-473-5018 Contacted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/>	Permit	<input checked="" type="checkbox"/>	Flow Measurement	<input checked="" type="checkbox"/>	Operations&Maint.	<input checked="" type="checkbox"/>	CSO/SSO (Sewer Overflow)
<input checked="" type="checkbox"/>	Records/Reports	<input checked="" type="checkbox"/>	Self-Monitoring Program	<input checked="" type="checkbox"/>	Sludge Handling/Disposal	<input type="checkbox"/>	Pollution Prevention
<input checked="" type="checkbox"/>	Facility Site Review	<input type="checkbox"/>	Compliance Schedules	<input type="checkbox"/>	Pretreatment	<input type="checkbox"/>	Multimedia
<input checked="" type="checkbox"/>	Effluent/Receiving water	<input checked="" type="checkbox"/>	Laboratory	<input type="checkbox"/>	Storm Water	<input type="checkbox"/>	other

Section D: Summary of Findings/Comments

I. Introduction

The City of Bremerton (City) owns and operates two wastewater treatment plants (WWTPs) - West Plant and East Plant. The West Plant on Oyster Bay Road provides secondary treatment and disinfection to the wastewater prior to discharging it to Sinclair Inlet. The East Plant on Stephenson Avenue provides advanced primary treatment and disinfection to the combined sewage from East Bremerton, prior to discharging it to Port Washington Narrows.

A regional Class II inspection was conducted at the West Plant on December 5, 2006. A Class I inspection of the East Plant was also conducted at this time. Amy Jankowiak, Mike Dawda, and Greg Stegman, Northwest Regional Office, Water Quality Program (NWRO-WQ) conducted the inspections with assistance from John Bykonen, Operations Supervisor at the plant. Prior notification of the inspection was given to the WWTP staff.

Ecology inspectors arrived at approximately 9:30 AM, conducted an inspection of the West Plant, including collecting and splitting samples, site review, and records/report review. The inspectors then went to the East Plant, conducted the Class I inspection, and departed at approximately 3 PM.

The treatment system at the West Plant consists of an activated sludge type secondary treatment system. The liquid stream treatment system at this plant includes bar screens (two mechanical and one manual), two aerated grit chambers, two primary clarifiers, two aeration basins with fine bubble diffusers, two secondary clarifiers, two chlorine contact basins (for disinfection with sodium hypochlorite), and a sodium bisulfite dechlorination system.

The East Plant operates only during wet weather periods and treats combined sewage only. The treatment system at the East Plant consists of a High Rate Clarification (HRC) system to treat combined sewage from East Bremerton. The liquid stream treatment system includes a 100,000-gallon storage tank, an HRC system, and an ultraviolet (UV) light disinfection system.

Both the West Plant and East Plant are regulated by National Pollutant Discharge Elimination System (NPDES) Permit No. WA-002928-9 effective October 1, 2006 and expiring September 28, 2011.

The purpose of this inspection was to fulfill the regional Class II requirements by conducting a site inspection, reviewing records, assessing the Permittee's self-monitoring procedures, splitting samples with the Permittee to determine the comparability of sampling methods and laboratory results, and sampling permit-limited parameters.

II. Results and Discussion

WEST PLANT

Collection System:

The West plant receives domestic sewage from residential and light commercial activities in the City of Bremerton and Kitsap County Sewer District Number 1. The plant also receives wastewater from Harrison Memorial Hospital, and domestic and industrial wastewater from Puget Sound Naval Shipyard (PSNS) – including on-shore facilities and saline wastewater from toilet facilities on the ships, and pretreated industrial wastewater. The plant also accepts RV septage, and leachate from the Olympic View Sanitary Landfill (photo #19). The plant receives and treats combined sewage during wet weather. There are 37 pump stations and 15 combined sewer outfalls in the collection system.

The City's grease ordinance is enforced by a full time city staff. The City's collections system staff conducts periodic vacuuming of sewer lines (as preventative maintenance) and also responds to alarms for emergencies, such as, high wet wells and overflows at pump stations. One of the concerns at the plant is the presence of rubber gloves, debris and rags in the collection system. The plant staff believes the gloves are coming from a local hospital. During the inspection, a large number of rubber gloves were observed in the influent screens (photo #08).

Liquid Stream Treatment:

The incoming wastewater first flows to headworks consisting of two mechanical bar screens (photos #06 and #07) and one manual bar screen, followed by two aerated grit chambers (photo #09). The wastewater then flows to the primary clarifiers (photo #11) for settling of heavier solids. The plant flow is measured at the influent end of the primary clarifiers (photo #10).

Primary clarifier effluent then flows to the aeration basins. The aeration basins (photos #12 and #13) are equipped with fine bubble diffusers. The selectors at the head end of the aeration basins help control filamentous bacteria in the mixed liquor. The diffusers in the aeration basins are cleaned about once every three months. The sludge age is currently maintained at approximately four days.

From the aeration basins, the wastewater flows to the secondary clarifiers (photos #14 and #15) for settling of biological solids (activated sludge). The secondary clarifier effluent flows to the chlorine contact chambers (photo #04) for disinfection with sodium hypochlorite. Dechlorination of the wastewater at the end of the chlorine contact chambers is accomplished with sodium bisulfite. The chlorine contact chambers are cleaned about once every three months. Effluent samples are collected at the end of the chlorine contact chamber, after dechlorination.

Secondary treated and disinfected effluent (photo #03) from the plant is discharged 568 feet offshore into Sinclair Inlet, Puget Sound, at a location west of PSNS, via a 36-inch diameter outfall equipped with a diffuser.

Solids Stream Treatment:

The screenings from the influent screens are collected in a dumpster by an auger (photo #08). Settled grit from the aerated grit chambers is also collected in the dumpster. Screenings and grit are disposed of at the Olympic View Sanitary Landfill.

The solids treatment and stabilization system (photos #16 and #18) consists of a dissolved air flotation thickener (DAFT), two anaerobic digesters, and a centrifuge. The primary sludge (solids settled in the primary clarifiers) is pumped to the anaerobic digesters. The secondary sludge (waste activated sludge from the secondary clarifiers) is thickened in the DAFT prior to anaerobic digestion. Digested sludge is dewatered in the centrifuge. The dewatered sludge (biosolids) (photo #17) with approximately 18% solids content is spread on permitted forest land owned by the City. The separated wastewater (from DAFT, digesters and centrifuge) is returned to the headworks for treatment.

Odor Control System:

An odor control system (photo #20) consisting of three packed tower chemical odor scrubbers is used at the plant to process odorous air generated from various treatment units - headworks, primary clarifiers, gravity thickener, DAFT, digester complex, centrifuge area, aeration basin headworks, return activated sludge (RAS) wet well, and primary and secondary scum boxes.

Flow Measurement:

The primary influent flow (reported as plant flow) is measured by two Parshall flumes. The final effluent flow is also measured by a Parshall flume. Secondary treatment bypassed flow is measured over a weir with an ultrasonic meter. The effluent flow has occasionally exceeded the capacity of the effluent flow meter. Therefore, the plant staff records and reports the primary influent flow measurement as the total plant flow, as authorized under the plant's NPDES permit. Flow meters are calibrated quarterly or monthly by the plant staff.

Sampling:

Influent sampling does not include any in-plant recycle flows, with the exception of tank drainings. If this recycle flow is occurring during sampling, it is recorded. Effluent samples are collected at the end of the chlorine contact chamber, after dechlorination. Both samplers collect time proportional refrigerated composite samples. The samplers are cleaned, and the sample collection hoses are replaced or cleaned about once a month. The influent composite sampler (photo #05) thermometer reading was about 2.5° - 3° C at the time of inspection. The thermometer on the composite sampler (photo #01) used to collect process control samples showed temperature of 3.5° C. The effluent composite sampler (photo #02) thermometer reading was 3° C.

Alarms/Back-up Power:

The existing generator at the plant will be replaced with a new larger generator in the near future. All the pump stations are equipped with alarms and telemetry systems. The plant staff keeps records of all the alarm calls. Major pump stations are equipped with emergency generators, and minor pump stations have hook-ups for portable generators. The staff has access to about three portable generators. The pump station generators are tested weekly without load and monthly with load.

Wet Weather Operation:

Due to combined sewage in the collection system, the plant receives high flows during winter months. The NPDES permit allows bypass of secondary treatment for flows higher than 22.8 MGD. However, the plant staff is generally able to provide secondary treatment to flows up to 32 MGD. Flows higher than 32 MGD are treated by the primary treatment system only, and then blended with the secondary treated effluent prior to chlorination, dechlorination, and discharge.

Staffing:

The plant is staffed Monday through Friday from 7 am to 3:30 pm, with the swing shift staffing from 11:30 am to 8 pm. The plant is also staffed on Saturdays and Sundays from 7 am to 3:30 pm. Pat Coxon (Wastewater Division Manager), John Bykonen (Operations Supervisor), and three other operators (Art McCarty, Jay Watson, and Jackie Horton – lab lead) have Group IV operator certification. John Fleming is a group III operator, and Ted is a group II operator. There are two operators on (emergency) call, one for each plant.

Records Review:

A comparison of bench sheets at the plant and the DMRs submitted to Ecology showed consistency. The detail included on bench sheets is excellent including proper crossing off and initialing of errors. The bench sheet values are entered into the DMRs by Jackie, which are then reviewed by both Pat and John. This review process is an excellent way of finding and correcting errors prior to submittal to Ecology. The log books for the plant and the collection system are very detailed and provide a great amount of information about the operations and maintenance for each day. This system also helps with staff handovers.

Split Sampling:

Split Sample Results: Influent and effluent composite samples were split on Tuesday, December 5, 2006. The Ecology samples were placed on ice and transported to Manchester Laboratory for analysis on December 6, 2006. The sample analysis results are as follows:

Parameter	Influent		Effluent	
	Bremerton	Ecology	Bremerton	Ecology
BOD ₅ (mg/L)	186	156	7	8 / 8
TSS (mg/L)	186	180	9	7
Fecal Coliform (#/100 mL)			10*	1 / 1
Ammonia (mg/L)			NA	19.0

Duplicate sample results are listed after the slash mark /.

NA = not applicable

*The detection level for fecal coliform for the City is 10/100 mL, and therefore the result was reported 10 or less.

Samples were split to determine the comparability of Ecology and the City's laboratory results and sampling methods. The results are in close agreement for influent BOD. There is inherent variability in influent samples. Influent TSS results and effluent BOD, TSS and fecal coliform results were all in very close agreement. A sample for Ammonia analysis was collected by Ecology, but was not requested to be collected for the City, as they had recently conducted the ammonia test and are only required to monitor for ammonia once a month.

EAST PLANT

Collection System:

Wastewater in East Bremerton is collected by series of pump stations, gravity pipelines, and pressure mains that discharge to the East Bremerton beach main. The wastewater from the beach main gravity sewer discharges to two siphons under Port Washington Narrows, to a pump station, which then pumps the wastewater to the West Plant for treatment.

During wet weather periods, combined sewage from East Bremerton is diverted to and treated at the East Plant when the volume of combined sewage exceeds the capacity of sewage conveyance system to the West Plant.

Liquid Stream Treatment:

The treatment system at this plant consists of a High Rate Clarification (HRC) system to treat combined sewage from East Bremerton. Treatment components at the plant include a 100,000-gallon storage tank, an HRC system, and an ultraviolet (UV) light disinfection system.

The East Plant starts automatically when the in-line storage capacity has been exhausted and the 100,000 gallon capacity storage tank (photo #22) is nearing full. If the capacity in the inverted siphons (across Port Washington Narrows) starts to free up before the in-line storage capacity is exhausted and the storage tank becomes full, the combined sewage drains back to the siphons and to the West Plant without the East Plant operating.

The attached photographs of the East Plant show the bar screen (photo #21) inside the storage tank, Parshall flume (photo #23) for flow measurement, coagulant injection point (photo #24), polymer injection area (photo #25), the sedimentation tank (photo #27) of the HRC system, and UV disinfection system (photo #26).

Treated and disinfected effluent is discharged to Port Washington Narrows, Puget Sound, via a 480 foot long outfall pipe equipped with a diffuser.

Solids Stream:

Solids removed at this plant are stored in the storage tank. When capacity becomes available in the sewer system, the solids are conveyed to the West Plant for removal and treatment.

Flow Measurement:

Flow is measured by a Parshall flume equipped with an ultrasonic meter.

Sampling:

The influent samples are collected at the head end of the plant and the effluent samples are collected after UV disinfection (photo #28).

Alarms/Back-up Power:

The East Plant pages the on-call operator when the level in the storage tank reaches a pre-set level. The on-call operator then goes to the plant to check on plant operation. Alarms are provided for chemical dosing system and the UV system.

III. Conclusions and Recommendations

West Plant:

The comprehensive grease program is a great way to prevent problems within the collection system pipes, pump stations and at the treatment plant. It is recommended that the collection system staff work with entities responsible for flushing of gloves into the collection system, to prevent gloves from entering the system.

The detail included on bench sheets is excellent and the process reviewing the DMR data by three people is an excellent way of finding and correcting errors prior to submittal to Ecology.

The log books for the plant and the collection system are very detailed and provide a great amount of information about the operations and maintenance for each day. This system also helps with staff handovers.

It was apparent at the time of inspection that the plant staff works diligently to maintain all of the plant equipment and operating units in good working condition.

East Plant:

The plant was not in operation at the time of the inspection, but appeared to be in good condition.

Mike Dawda, permit writer, should be contacted at 425-649-7027 for permit related questions. Carl Jones should be contacted at 360-407-6431 for operations related questions. Amy Jankowiak should be contacted at 425-649-7195 for compliance related questions.

Attachments: photos, laboratory reports, "Informational Manual for Treatment Plant Operators"

Copies to: Pat Coxon, Bremerton WWTP
Amy Jankowiak, Municipal Compliance, NWRO
Lori LeVander, Water Quality, NWRO
Central Files, City of Bremerton STP; WA-002928-9; WQ 6.1

Name(s) and Signatures of Inspector(s) Amy Jankowiak <i>L. LeVander (for Amy Jankowiak)</i>	Agency/Office/Telephone WA Dept. of Ecology/NWRO/(425)649-7195 3190 160th SE, Bellevue, WA 98008-5452	Date 3/29/2007
Mike Dawda <i>Mike Dawda</i>	425-649-7027	March 29, 2007
Signature of Management Q A Reviewer <i>Karen Banger</i>	Agency/Office/Phone and Fax Numbers WA Dept. of Ecology/NWRO/(425)649-7207 fax (425)649-7098	Date 3/29/2007

ANNOUNCED Inspection

Appendix E

Compliance Inspection Report Form

INSTRUCTIONS**Section A: National Data System Coding (i.e., PCS)**

Column 1: Transaction Code. Use N, C, or D for New Change or Delete. All inspections will be new unless there is an error in the data entered.

Columns 3-11: NPDES Permit No. Enter the facility's NPDES permit number. (*Use the Remarks columns to record State permit number, if necessary.*)

Columns 12-17: Inspection Date. Insert the date entry was made into the facility. Use the year/month/day format (e.g., 94/06/30 = June 30, 1994).

Column 18: Inspection Type. Use one of the codes listed below to describe the type of inspection:

A Performance Audit	L Enforcement Case Support	2 IU Sampling Inspection
B Compliance Biomonitoring	M Multimedia	3 IU Non-Sampling Inspection
C Compliance Evaluation (non-sampling)	P Pretreatment Compliance Inspection	4 IU Toxics Inspection
D Diagnostic	R Reconnaissance	5 IU Sampling Inspection with Pretreatment
E Corps of Engineers Inspection	S Compliance Sampling	6 IU Non-Sampling Inspection with pretreatment
F Pretreatment Follow-up	U IU Inspection with Pretreatment Audit	7 IU Toxics with Pretreatment
G Pretreatment Audit	X Toxics Inspection	
I Industrial User (IU) Inspection	Z Sludge	

Column 19: Inspector Code. Use one of the codes listed below to describe the *lead agency* in the inspection.

C - Contractor or Other Inspectors (<i>Specify in Remarks Columns</i>)	N - NEIC Inspectors
E - Corps of Engineers	R - EPA Regional Inspector
J - Joint EPA/State Inspectors - EPA Lead	S - State Inspector
	T - Joint State/EPA Inspectors - State Lead

Column 20: Facility Type. Use one of the codes below to describe the facility.

- 1 - Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
- 2 - Industrial. Other than municipal, agricultural, and Federal facilities.
- 3 - Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
- 4 - Federal. Facilities identified as Federal by the EPA Regional Office

Columns 21-66: Remarks. These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days. Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating. Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection. Enter Q if the inspection was conducted as follow-up on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, and other updates to the record).

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection. The heading marked "Multimedia" may indicate medias such as CAA, RCRA, and TSCA. The heading marked "Other" may indicate activities such as SPCC, BMPs, and concerns that are not covered elsewhere.

Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

LINKS AND INFORMATION:

"Informational Manual for Treatment Plant Operators"; February 2004; by the Department of Ecology
Publication Number 04-10-020:

<http://www.ecy.wa.gov/pubs/0410020.pdf>

The manual was prepared to help wastewater treatment plant operators complete and submit their Discharge Monitoring Reports (DMRs) and other annual reports to the Department of Ecology. The manual is available in hard copy. To request a copy, contact the Department of Ecology, Publications Distribution Center at P.O. Box 47600, Olympia, WA 98504-7600 or by Telephone: (360) 407-7472. Updates to the manual are included on the website version.

Ecology's Wastewater and Reuse website:

<http://www.ecy.wa.gov/programs/wq/wastewater/index.html>

Ecology's Operator Certification website:

http://www.ecy.wa.gov/programs/wq/wastewater/op_cert/index.html

Ecology's Laboratory Accreditation website:

http://www.ecy.wa.gov/programs/eap/labs/labs_main.html

Ecology's Biosolids website:

<http://www.ecy.wa.gov/programs/swfa/biosolids/>

Ecology's Operator Outreach: Carl Jones (360) 407-6431; cjon461@ecy.wa.gov

Ecology's Municipal Compliance Specialist (Northwest Regional Office): Amy Jankowiak (425) 649-7195;

ajan461@ecy.wa.gov

Ecology's Wastewater Operator Certification Coordinator: Poppy Carre (360) 407-6449; 1-800-633-6193 (within the state)

poca461@ecy.wa.gov

Ecology's Biosolids Coordinator (Northwest Regional Office)" Marietta Sharp (425) 649-7258 mars461@ecy.wa.gov

Reporting Spills/Overflows/Upsets/Bypasses/Loss of Disinfection IMMEDIATELY:

Ecology's 24-hour number: (425) 649-7000 to report a spill

Department of Health – Shellfish Program 24-hour number: (360) 236-3330

PHOTO ADDENDUM –BREMERTON WWTP, WA002928-9 WEST PLANT



PHOTO #:01 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050001.JPG
DESCRIPTION: PROCESS CONTROL SAMPLER

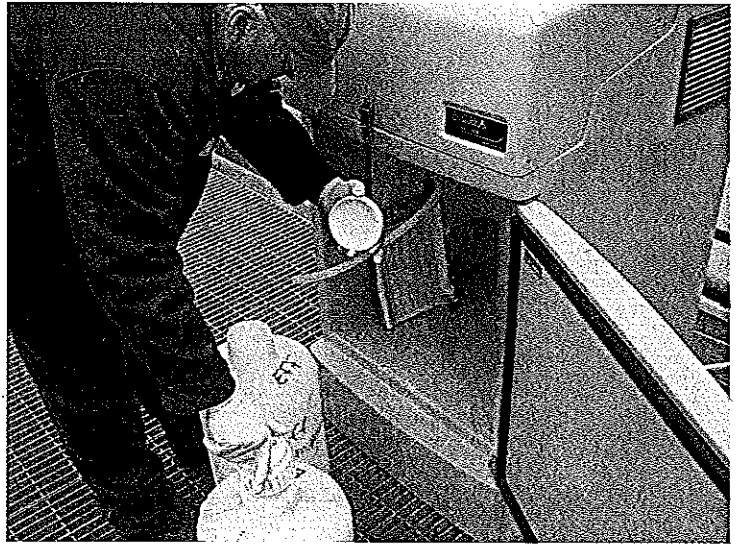


PHOTO #:02 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050002.JPG
DESCRIPTION: EFFLUENT SAMPLER (SPLITTING SAMPLES)

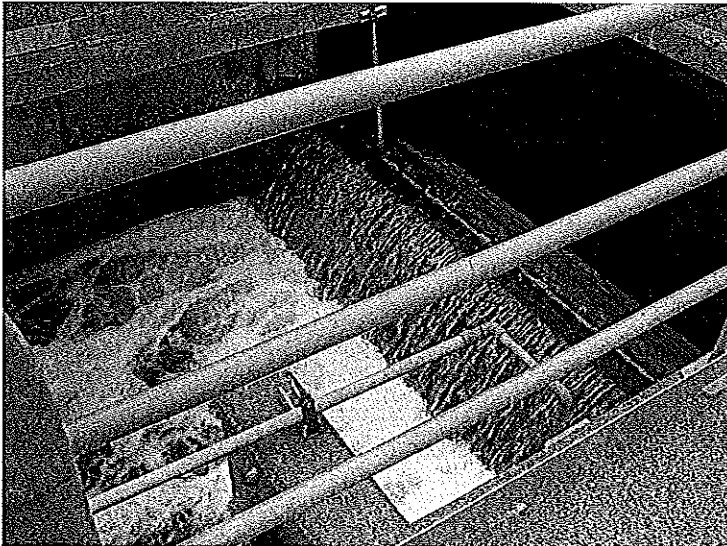


PHOTO #:03 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050003.JPG
DESCRIPTION: EFFLUENT (END OF CHLORINE CONTACT CHAMBER)

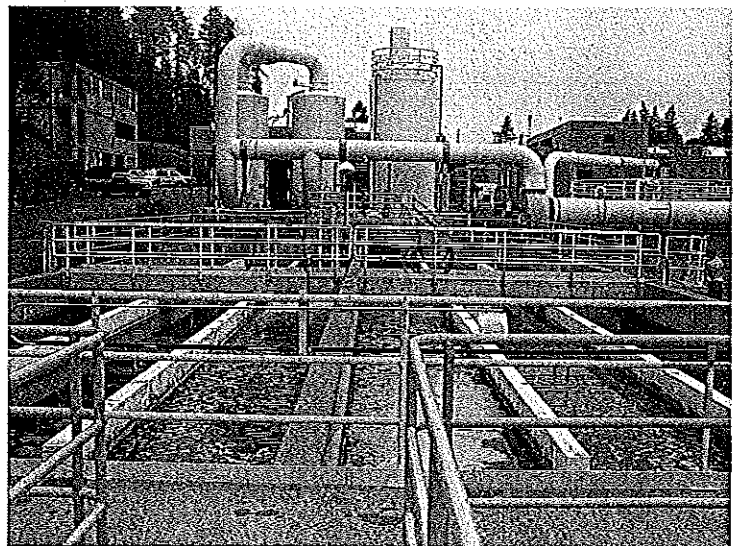


PHOTO #:04 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050004.JPG
DESCRIPTION: CHLORINE CONTACT CHAMBERS

PHOTO ADDENDUM -BREMERTON WWTP, WA002928-9 WEST PLANT

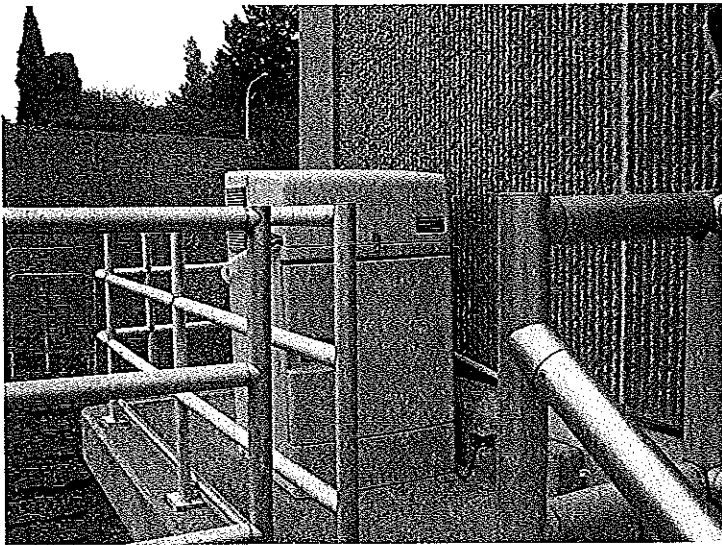


PHOTO #:05 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050005.JPG
DESCRIPTION: INFLUENT SAMPLER

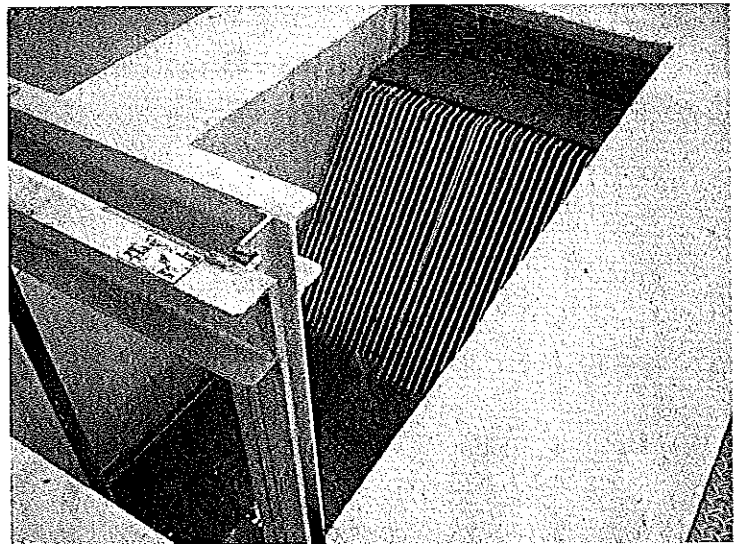


PHOTO #:06 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050006.JPG
DESCRIPTION: CENTER BAR SCREEN



PHOTO #:07 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050007.JPG
DESCRIPTION: BAR SCREENS

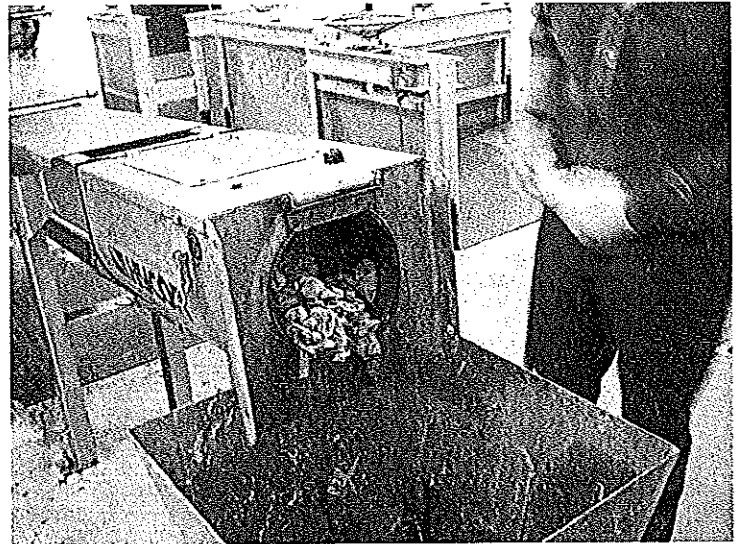


PHOTO #:08 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050008.JPG
DESCRIPTION: BAR SCREEN SOLIDS (NUMEROUS GLOVES)

PHOTO ADDENDUM-BREMERTON WWTP, WA002928-9 WEST PLANT

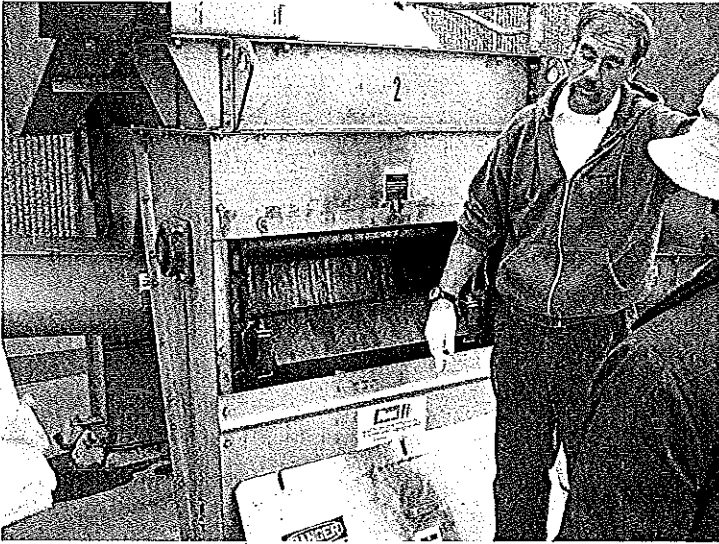


PHOTO #:09 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050011.JPG
DESCRIPTION: GRIT REMOVAL



PHOTO #:10 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE NO.:PC050015.JPG
DESCRIPTION: PRIMARY FLOW METER/FLUME

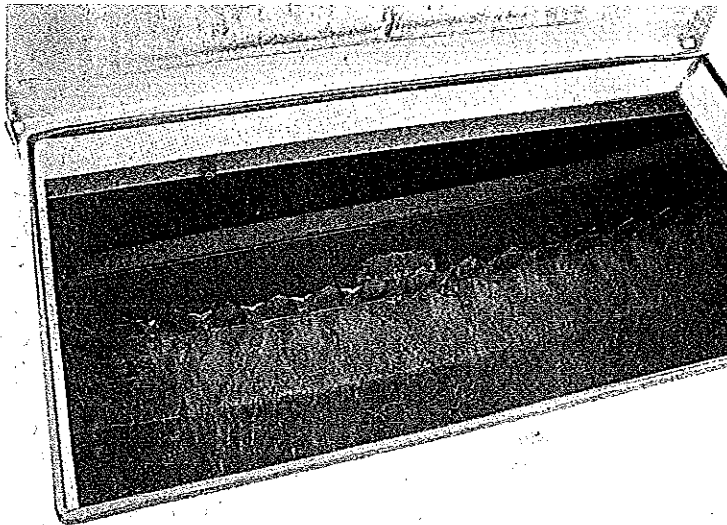


PHOTO #:11 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE NO.:PC050017.JPG
DESCRIPTION: INSIDE OF ONE OF THE PRIMARY CLARIFIERS

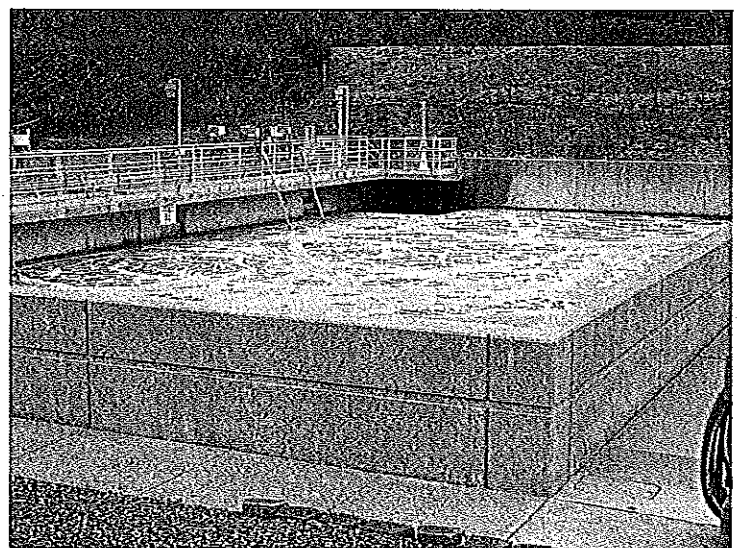


PHOTO #:12 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050019.JPG
DESCRIPTION: AERATION BASIN

PHOTO ADDENDUM –BREMERTON WWTP, WA002928-9 WEST PLANT



PHOTO #:13 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050021.JPG
DESCRIPTION: AERATION BASIN

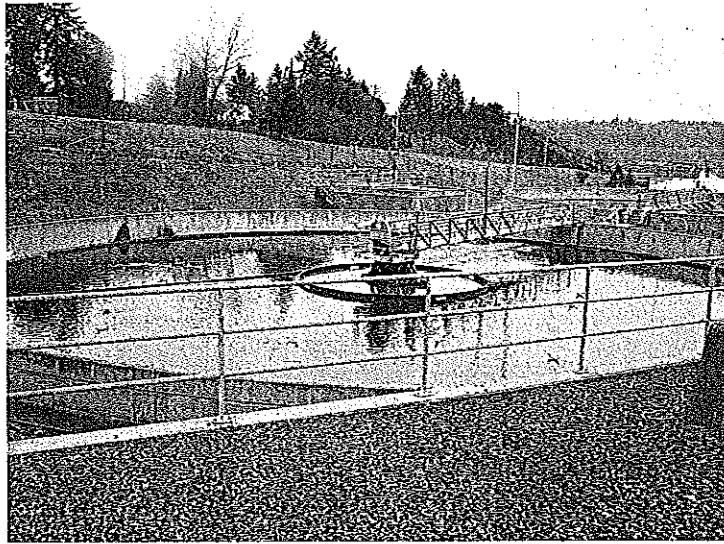


PHOTO #:14 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050020.JPG
DESCRIPTION: ONE OF THE SECONDARY CLARIFIERS

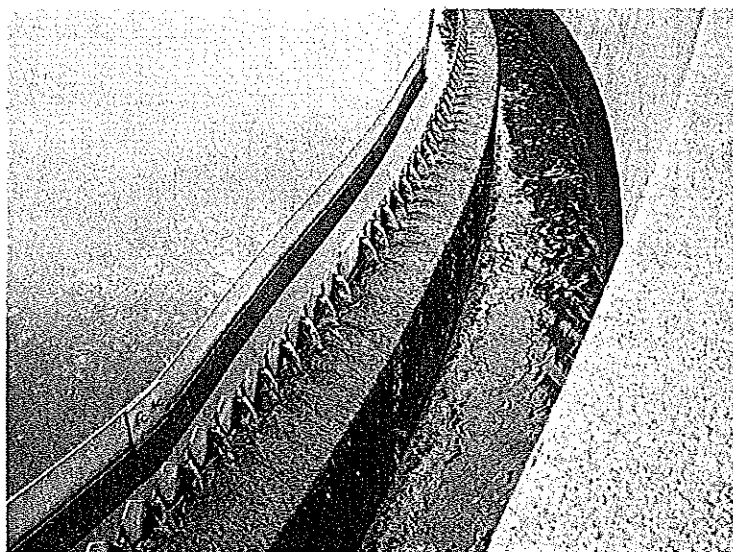


PHOTO #:15 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050022.JPG
DESCRIPTION: CLOSE UP OF ONE OF THE SECONDARY CLARIFIERS

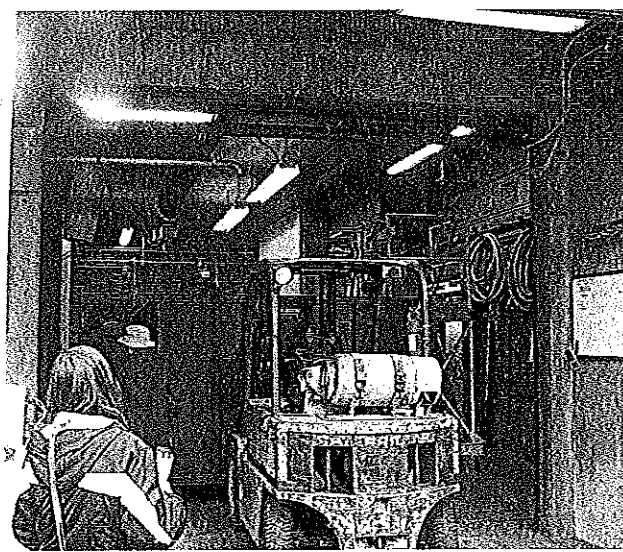


PHOTO #:16 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050023.JPG
DESCRIPTION: SOLIDS HANDLING BUILDING

PHOTO ADDENDUM –BREMERTON WWTP, WA002928-9 WEST PLANT



PHOTO #:17 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050026.JPG
DESCRIPTION: BIOSOLIDS INSIDE OF TRUCK

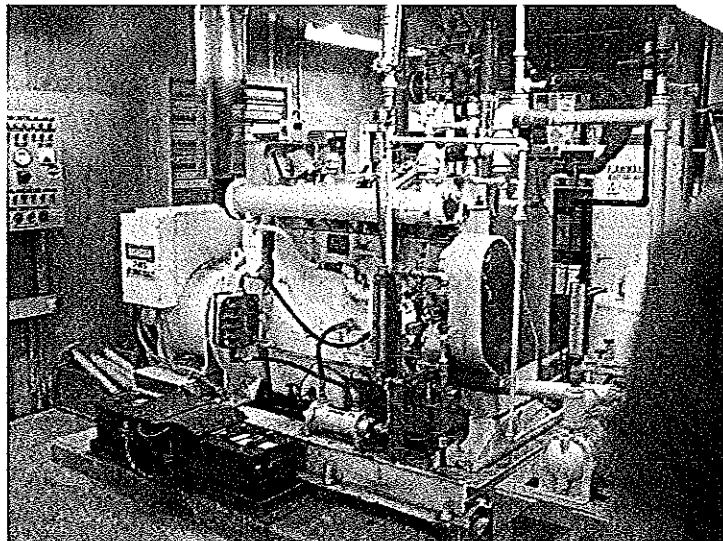


PHOTO #:18 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050028.JPG
DESCRIPTION: SOLIDS HANDLING

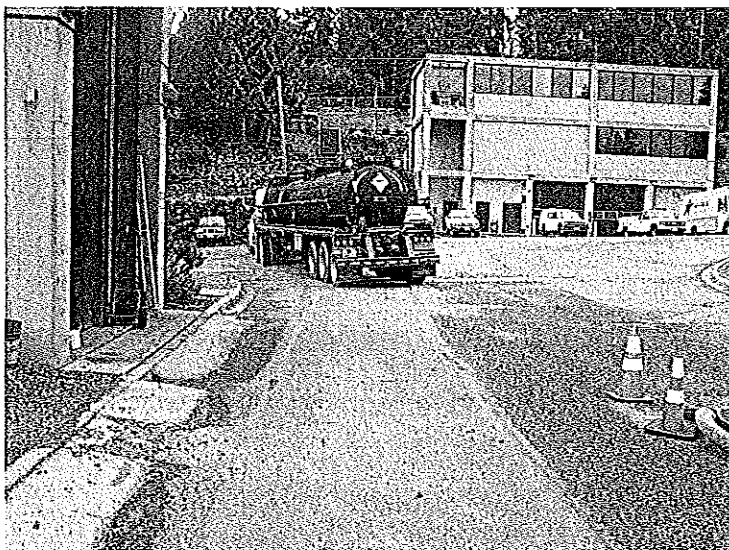


PHOTO #:19 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050029.JPG
DESCRIPTION: LEACHATE DELIVERY



PHOTO #:20 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050030.JPG
DESCRIPTION: ODOR CONTROL SCRUBBER/MEDIA

PHOTO ADDENDUM –BREMERTON WWTP, WA002928-9 EAST PLANT

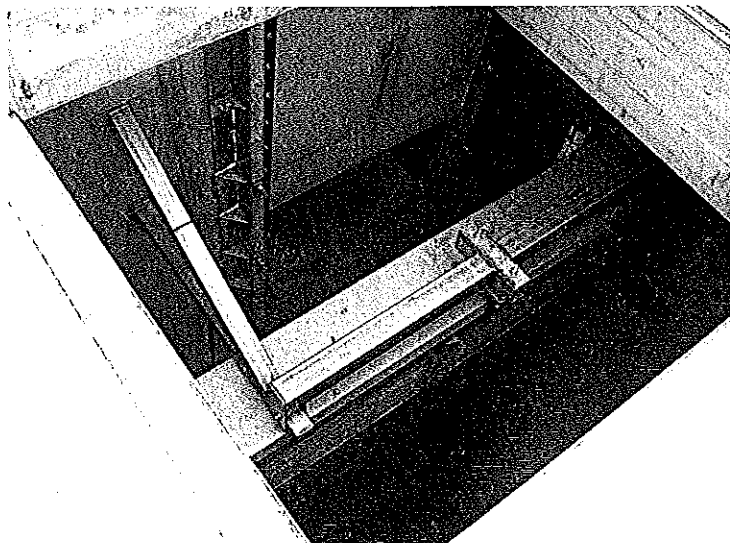


PHOTO #:21 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
 FILE No.:PC050032.JPG
 DESCRIPTION: SCREEN INSIDE HOLDING TANK

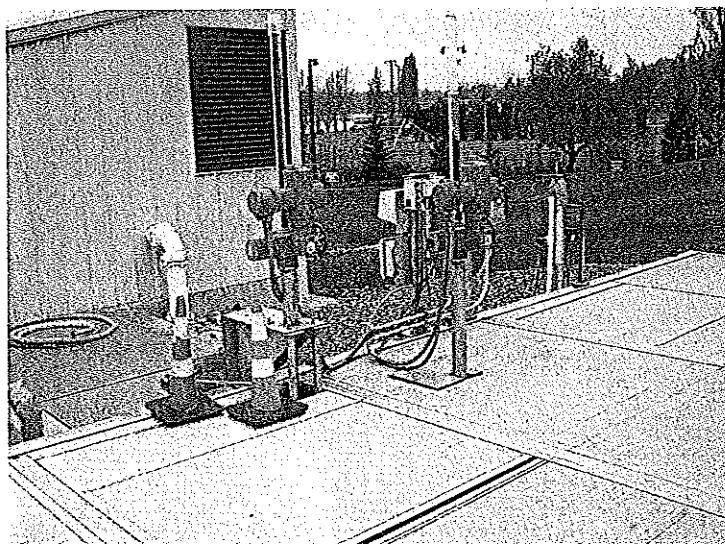


PHOTO #:22 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
 FILE No.:PC050034.JPG
 DESCRIPTION: TOP OF HOLDING TANK

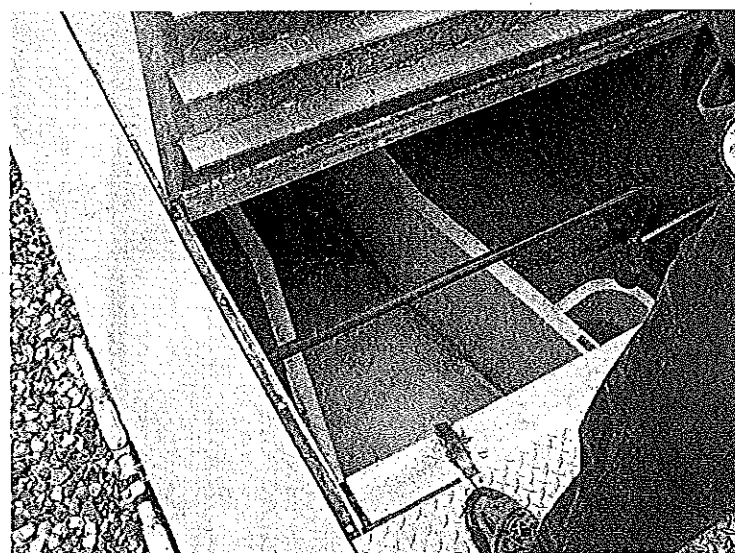


PHOTO #:23 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
 FILE No.:PC050036.JPG
 DESCRIPTION: PARSHALL FLUME/ENTRY TO PLANT FROM HOLDING TANK/SCREEN

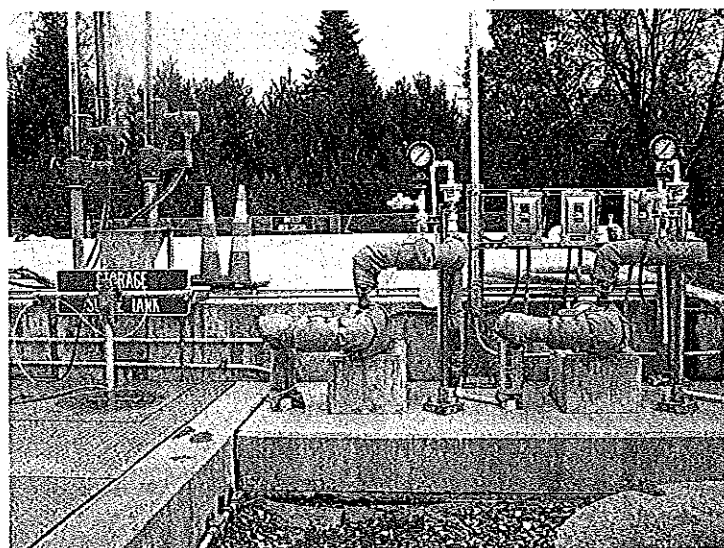


PHOTO #:24 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
 FILE No.:PC050038.JPG
 DESCRIPTION: VIEW BACK AT HOLDING TANK/COAGULANT INJECTION

PHOTO ADDENDUM -BREMERTON WWTP, WA002928-9 EAST PLANT



PHOTO #:25 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050040.JPG
DESCRIPTION: POLYMER INJECTION

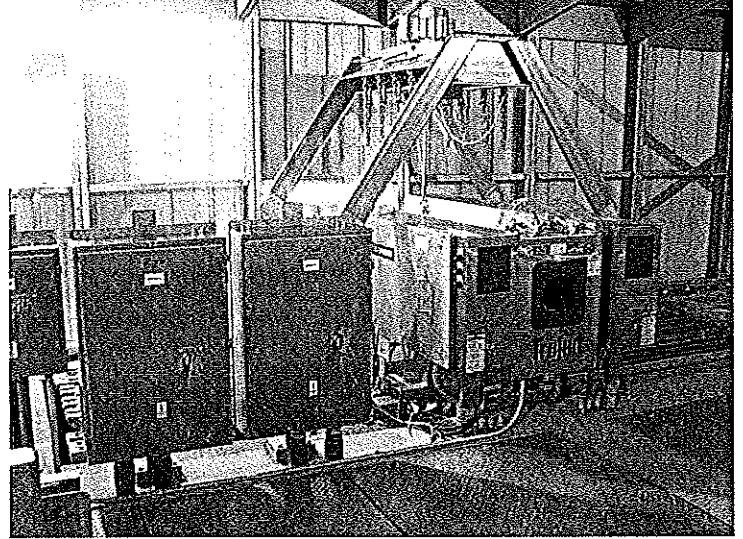


PHOTO #:26 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050042.JPG
DESCRIPTION: UV DISINFECTION SYSTEM

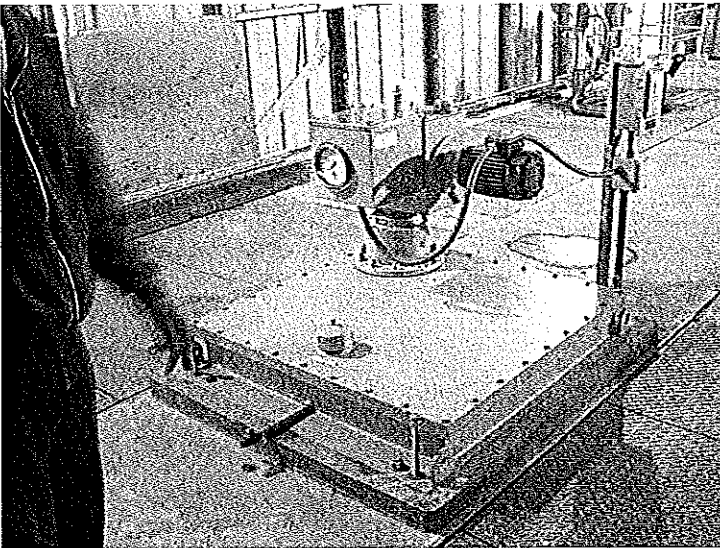


PHOTO #:27 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050043.JPG
DESCRIPTION: SAND/SEDIMENT TANK

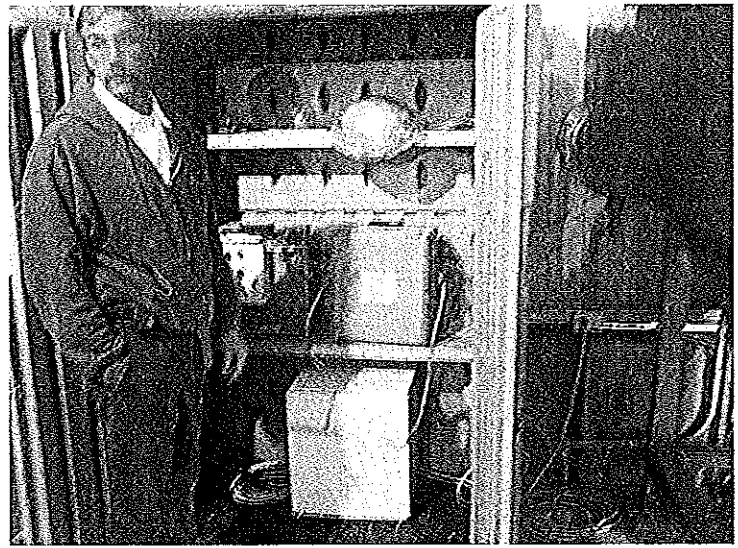


PHOTO #:28 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
FILE No.:PC050044.JPG
DESCRIPTION: SAMPLERS (MR. BYKONEN)

PHOTO ADDENDUM –BREMERTON WWTP, WA002928-9 EAST PLANT

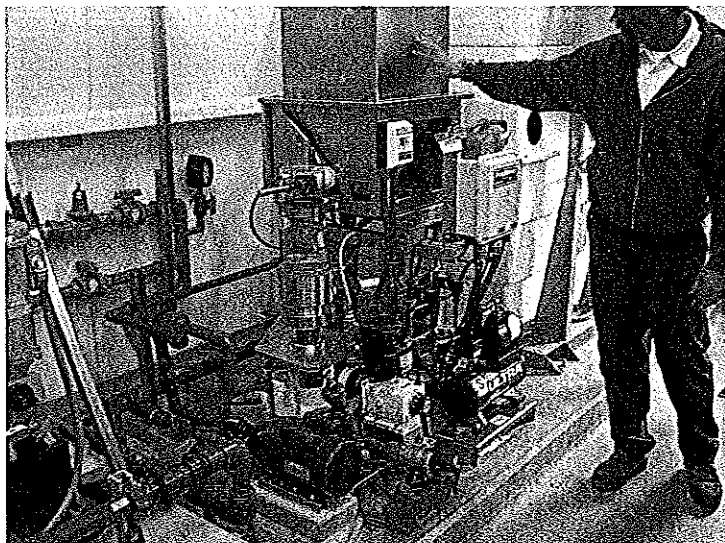


PHOTO #:29 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
 FILE No.:PC050046.JPG
 DESCRIPTION: CHEMICAL STORAGE ROOM

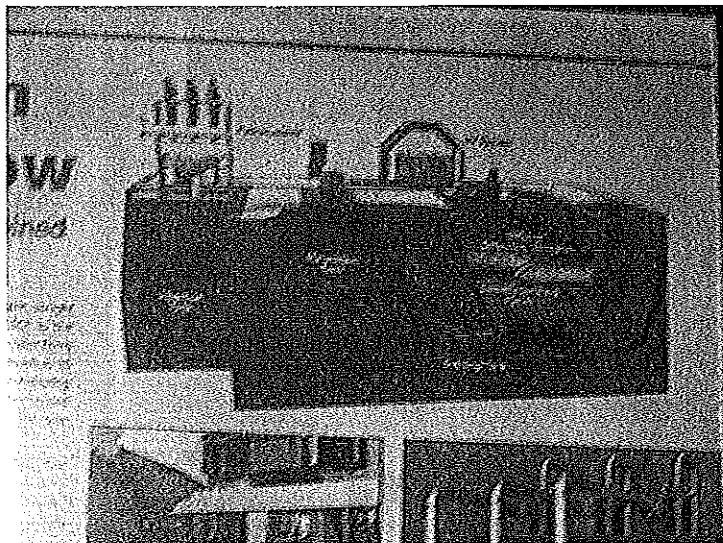


PHOTO #:30 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
 FILE No.:PC050049.JPG
 DESCRIPTION: SCHEMATIC OF EAST PLANT

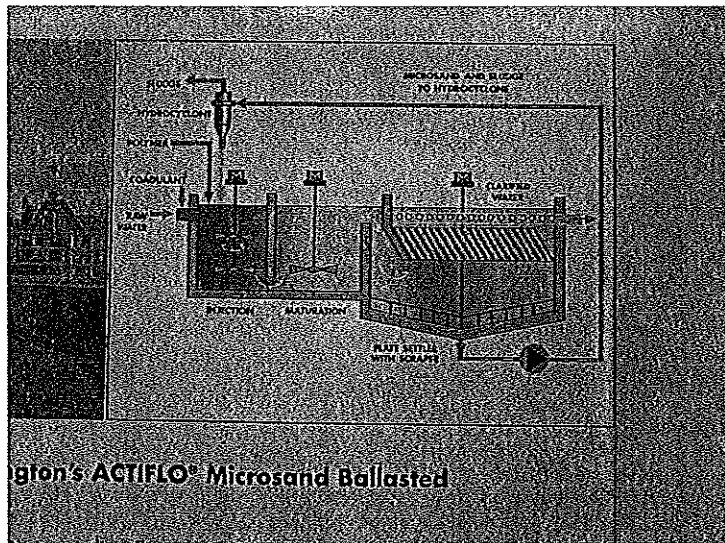


PHOTO #:31 DATE: 12/05/06 TAKEN BY: GREG STEGMAN
 FILE No.:PC050052.JPG
 DESCRIPTION: SCHEMATIC OF EAST PLANT