

MEMORANDUM
Department of Ecology

Publication No. 72-e06

TO: John Glynn

DATE: October 24, 1972

FROM: Ron Devitt

SUBJECT: Auburn Pack

On September 27, 1972, Hans Cregg and I did a survey on Auburn Pack. John Glynn and Ed Rutkosky conducted dye tracing of the drains in the truck wash area.

Influent samples were taken from the discharge pipe of the rotary screen. There is no good sampling point before the screen, so the efficiency of the screen was not determined.

Effluent samples were obtained from the 90° V notch weir. Since the clarifier is pumped empty every night, there is no discharge from the chlorine contact chamber until the clarifier fills up and begins overflowing.

Although there was no flow through the chlorine contact chamber until 1220 hours there was a discharge to the river, indicating that some of the wastewater is not routed through the treatment system.

A thirty minute settleability on the sludge return from the clarifier was 150 ml. Total suspended solids on the sludge return was 1960 ppm.

The location of the outfall at the river is across the road from the northeast corner of the fenced pasture.

RD:bj

STP SURVEY REPORT FORM

(EFFICIENCY STUDY)

Industry XXXX Auburn Pack Plant Type Lagoons & Clarifier Population Served --- Design Capacity ---

Receiving Water Green River Engineer John Glynn

Date 9/27/72 Survey Period 1100-1600 Survey Personnel Ron Devitt, Hans Cregg

Comp. Sampling Frequency 15 min. Weather Conditions Clear
(last 48 hours)

Sampling Alequot 1000 ml/sample

PLANT OPERATION

Discharge XXXX 37,500 gallons in 9 hours How Measured 90° V notch - yardstick level recorder

Max. (Flow) Steady at .1 MGD Time of Max. Min. Time of Min.

Pre Cl₂ #/day Post Cl₂ ? #/day

* Does not include water to fill clarifier

FIELD RESULTS

11 influent
8 effluent
Determinations

	Influent				Effluent			
	Max.	Min.	Mean	Median	Max.	Min.	Mean	Median
Temp. °C	17	12	14.7	15	13	9	9.8	9
pH	8.0	6.8	7.3	7.2	6.4	6.2	6.3	6.4
Conductivity (umhos/cm)	---	---	---	---	---	---	---	---
Settleable Solids	19	2.5	8.7	9.0	.05	Trace	Nil	Nil

LABORATORY RESULTS ON COMPOSITE IN PPM

Laboratory Number	Influent	Effluent	% Reduction
5-Day BOD	710	217	69
COD	1900	217	88
T.S.	1520	778	48
T.N.V.S.	326	455	--
T.S.S.	911	125	86
N.V.S.S.	---	---	--
pH	---	---	--
Conductivity	---	---	--
Turbidity	---	---	--

Total Grease (grab samples) 88 10

BACTERIOLOGICAL RESULTS

$\frac{1}{2}$ S₂O₃ added to sample _____ After _____ min.

LAB #	SAMPLING TIME	COLONIES/100 MLS (MF)	Cl Residual	
			15 sec. ppm	360 sec. (after secs)
Influent	1100	1,000,000	---	---
Effluent	1400	<200	.15	.50
Effluent	1445	<200	.5	>1.0

Operator's Name _____ Phone # _____

Comments: _____

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Pete Hildebrandt, Ron Pine, Ron Devitt,
and files.

July 25, 1972

John H. Glynn

Modified
by phone
w.
John Glynn
3-25

SURVEY REQUEST - Auburn Packing Company, Inc., Auburn, Washington

OBJECTIVE: To determine the effectiveness of the plant waste treatment system.

Auburn Packing Company processes approximately 250 head of cattle per day and has a waste flow volume of 85,000 - 90,000 gallons per day. A new sewage treatment system consists of an anaerobic cell followed by an aerobic cell and a final clarifier from which sludge is pumped back into the aerobic cell. Effluent is chlorinated. The aerobic cell is considered by its design engineer to be an activated sludge process. The plant effluent is brown in color and there are some solids carried over.

We wish to determine whether this plant is providing an acceptable degree of treatment prior to discharge to the Green River and whether we can consider approving similar systems for other packing plants in the region.

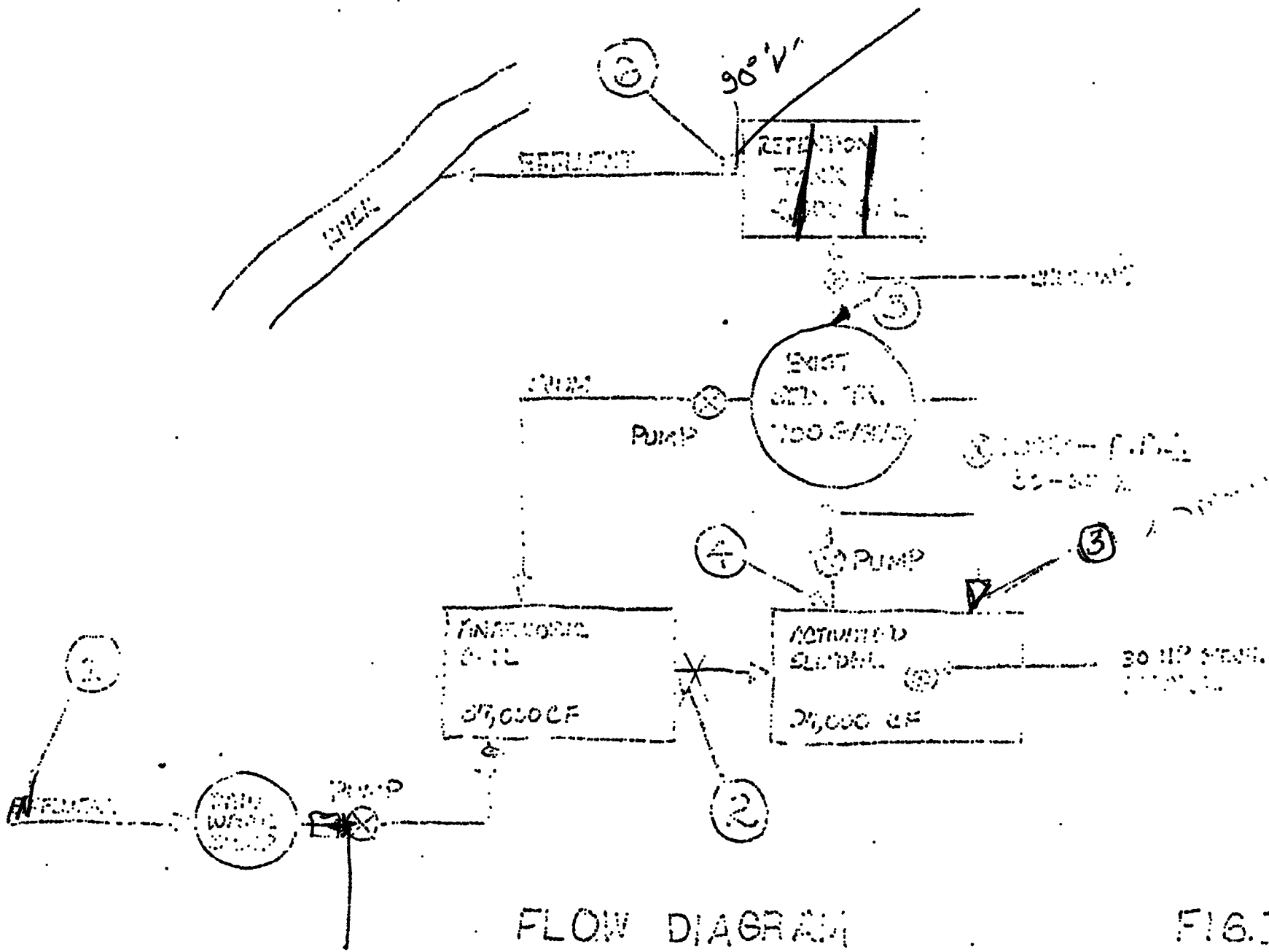
Information desired:

1. BOD	Stations: 1, 2, 4, 5, 6*
2. COD	1, 2, 4, 5, 6
3. Suspended Solids	1, 2, 3, 4, 5, 6
4. Settlesable Solids	1, 6
5. NH ₃	1, 6
6. Grease (Hexane Extraction)	1, 2, 6 (3 grabs each)
7. Coliform (Total)	1, 6* (1 at 1, 3 @ 6)

*Sample should be dechlorinated.

I would like to be present during the survey if possible.

JHG:mk
7-25-72 (dd)
7-25-72 (dt)



FLOW DIAGRAM

FIG. 2

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
OLYMPIA, WASHINGTON

Permit No. 3827

In accordance with Chapter 90.48 RCW,
and Chapter 372-24 W.A.C.

Date of Issue August 23, 1971

A WASTE DISCHARGE PERMIT is issued to:

Date of Expiration August 23, 1976

Auburn Packing Company, Inc.
P.O. Box 519
Auburn, Washington 98002

Waste from the permittee's industrial operation located at Auburn, Washington, not exceeding 150,000 gallons per day may be discharged to the Green River at the following point of discharge: The Southside of Green River, about 1/2 mile above the mouth of Soos Creek.

Said discharge is authorized subject to the following conditions:

1. The word "waste" in the above statement refers to the total volume of contaminated industrial wastewaters to be discharged.
2. The following waste prevention practices are to be used to eliminate excessive losses of solids and high strength waste waters to the treatment system.
 - A. Blood collection with sufficient hanging time to allow efficient collection of the kill blood shall be provided at all times. The blood collected shall be disposed of by drying or by a method approved by this Department.
 - B. Collection of paunch and stomach contents. This may be done by handling the material dry, or by use of a fine mesh screen as approved by this Department.
 - C. Dry cleaning of floors for the collection of grease and meat particles, prior to wet cleaning.
 - D. Blood, paunch contents, grease and meat particles, other solids collected, hair, holding pen manures and wastes from trucks are to be sold, used as fertilizer or disposed of in such manner to prevent their entry into state waters.
3. Wastewaters remaining after the above prevention measures are to be discharged to a secondary waste treatment facility consisting of the following units as approved by this Department:
 - A. An anserobic lagoon with activated sludge return.
 - B. An aerobic lagoon with two floating mechanical aerators.
 - C. A clarifier, converted from the original grease flotation tank.

Auburn Packing Company, Inc.
Auburn, Washington

Date of Issue August 23, 1971

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- D. A chlorination unit and baffled chlorine contact tank.
- E. An outfall to the Green River.
- 4. The treatment plant of condition 3 above, shall be operated to continuously produce the following treatment:
 - A. 85% minimum BOD₅ (biochemical oxygen demand) reduction.
 - B. 90% minimum suspended solids reduction.
 - C. Less than 50 mg/l total grease, as determined by the hexane extraction method, remaining in the final effluent.
 - D. Minimum flash chlorine residual of 0.5 mg/l after 20 minutes detention time at peak daily flows.
- 5. The final discharge from the treatment plant shall be to the Green River.
- 6. Continuous aeration shall be applied to the aerobic lagoon cell, 24 hours per day.
- 7. In the event of a breakdown of any unit in the treatment system which will adversely affect the quality of the discharged wastes, the plant must be immediately shut down until necessary corrections are made.
- 8. Sanitary wastes must be disposed of in accordance with the requirements of the Seattle-King County Health Department.
- 9. In the event a sanitary sewer becomes available within the term of this permit, all industrial and domestic wastes shall immediately be intercepted to that sewer, and all treatment facilities abandoned.
- 10. If sludge beds or scum blankets build up on the treatment lagoons to the extent that the plant efficiency drops below the requirements of condition 4 of this permit, the excess materials shall be removed and disposed of as solid wastes in an approved manner.
- 11. If nuisance odors or insect populations result from the operation of the treatment unit, additional restrictions may be made to correct the problem(s).
- 12. Sludge or floating material removed from the clarifier shall be sold, utilized or disposed of as solid waste, and shall not be discharged to any state waters.
- 13. No fleshings, blood, viscera or other waste products shall be discharged to the Green River.

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Auburn, Washington

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14. Daily operation tests are required insure that the facility is operating at its highest level of efficiency. Operation test results must be maintained at the plant and be available to Department of Ecology personnel upon request and copies of results may be required to be mailed to Department of Ecology upon request.

The following daily tests and information must be maintained:

- A. Total daily kill.
- B. Total daily effluent flow.
- C. Effluent dissolved oxygen.
- D. Influent and effluent settleable solids.
- E. pH
- F. Chlorine residual and pounds per day used.
- G. Influent Biochemical Oxygen Demand.
- H. Effluent Biochemical Oxygen Demand.

The BOD tests shall be made weekly during the first three months. Then, if facility is producing uniform satisfactory results, the BOD tests shall be made monthly.

15. In the event the permittee is temporarily unable to comply with any of the above conditions of this permit, due to breakdown of equipment or other cause, the permittee is to immediately notify this department. This report is to include pertinent information as to the cause and what steps are being taken to correct the problem and prevent its recurrence.

This permit does not allow the discharge of wastes other than those mentioned herein. A new application shall be submitted whenever a change in the waste to be discharged is anticipated.

This permit is subject to termination if the department finds: (1) That it was procured by misrepresentation of any material fact or by lack of full disclosure in the application; (2) That there has been a violation of the conditions thereof; (3) That a material change in quantity or type of waste disposal exists.

In the event that a material change in the conditions of the state waters utilized creates a dangerous degree of pollution, the department may specify additional conditions to this permit.

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Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including those administered by local agencies under the Shoreline Management Act of 1971.

Signed 
Executive Assistant Director
Department of Ecology

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

ORIGINAL TO:
..R. Dev. 11.....
COPIES TO:
.....
.....
LAB FILES

DATA SUMMARY

Source AUBURN PACKING

Collected By RCD

Date Collected 9-27

Goal, Pro./Obj. 3223

Log Number:	7236-31	32	33	34	35	36	37	38	39	40	41	STORET
Station:	INF. COMP	INF GRAB 1445	EFF	EFF 1445	EFF 1600	RTN.	INF	1400 EFF. C22	1445 EFF	1600 EFF		
pH												00403
Turbidity (JTU)												00070
Conductivity (umhos/cm)@25°C												00095
COD	1900		217									00340
BOD (5 day)	710		46									00310
Total Coliform (Col./100ml)							1,000,000	<200	<100	<200		31504
Fecal Coliform (Col./100ml)												31616
NO3-N (Filtered)												00620
NO2-N (Filtered)												00615
NH3-N (Unfiltered)	2.6		2.9									00610
T. Kjeldahl-N (Unfiltered)												00625
O-PO4-P (Filtered)												00671
Total Phos.-P (Unfiltered)												00665
Total Solids	1520.		778.									00500
Total Non Vol. Solids	326		455.									
Total Suspended Solids	911.		125.			1960						00530
Total Sus. Non Vol. Solids												
TOTAL GREASES		88.			10.							
Settleable Solids (ml/l)	637	487										
	<u>NO</u>	<u>GOOD</u>										

Note: All results are in PPM unless otherwise specified. ND is "None Detected"
Convert those marked with a * to PPB (PPM X 10³) prior to entry into STORET

Summary By Stephen P Roll Date 10-18-72

