Publication No. 75-e57
WA-CR-1028

MEMORANDUM

July 16, 1975

To: Central Region

From: Shirley Prescott S. Prescott

Subject: Union Collier Chemical

On June 11, 1975, Scott Jeane and I ran a survey on the above-referenced installation.

There is one discharge pipe located just under the dock on the river. Flow measurements are taken at this point. There is not any type of flow measuring device. They check the flow monthly with a five gallon bucket and reported flow averages of 5000 gal/day during the summer months and 4000 gal/day during the winter.

The discharge is condenser or cooling water from two bulk storage tanks of liquid NH_3. The tanks are designated as north and south and are shown as such on the following field test results:

SOUTH TANK				NORTH TANK				
Time	pH	Conductivity	Temp.	Time	pH	Cond.	Temp.	Flows
1015	8.1	8000	18°C	1030	8.6	1150	17°C	325 gal/hr.
1130	7.5	6000	19	1135	8.3	1000	17	237 gal/hr.
1300	7.8	3800	19.5	1305	8.4	950	18	284 gal/hr.
1400	7.7	300	18.5	1405	8.2	960	17.5	

Approx. average hourly flow 282 gal/hr.
Approx. average daily 6768 gal/hr.

The south tank condenser water overflow valve had been partially closed and we requested that it be opened to the normal position. Both conductivity and temperature were reduced.

Lab results on the composite sample are as follow:

Parameter	NORTH	SOUTH	AVG.	#/Day (Based on Approx. Daily Flow)
pH	7.9	7.9		
Conductivity	2500	4000	3250	
NO_3N mg/L	200	360	280	15.64
NO_2N mg/L	ND	ND	ND	
NH-N mg/L	55	85	70	3.91
OPO-P mg/L	0.02	.02	.02	.001
T.Phos.-P mg/L	0.04	0.12	.08	.004
T. Solids mg/L	1412	2410	1911	
T.N.V.S. mg/L	546	945	742.5	
T. Sus. Solids mg/L	70	184	127	7.1
Color Units	56	60	58	

They would appear to be operating within permit limitations of maximum discharge of 7,500 gal/day, temperature 65°F, and pH of 6.5 to 8.5.

SP:ee

Union Bud Thorpe

Collier Chemical = Mike Dalich - 5864162

~~Allied Chemicals~~ -

Chemcon - Frank Spanuel - Dave Shaner -

Sanvic Special Metals - Glyn Philips 5864131

Phillips = De Roy Pierce 586-6191

Phillips - Very High O+T PO4 valve influent + Effluent A + B -

is phillips being contaminated by O

Chemcon - sample below Junction of A+B lines -

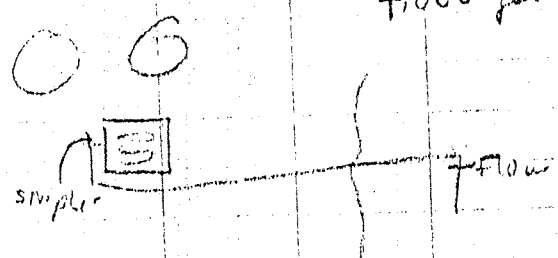
(Flows) very high nutrients

oil at times (Line A)

Collier - Flow = 5 gal bucket - monthly -

Average 5,000 gal/day - summer

4,000 gal/day - winter -



Dearborn Aqua - Serve C-370

Shirley + Scott Union Collier Chemical

6-11-75 Bulk Liquid NH3 + Eurea storage -

water is condenser water off bulk NH3 storage -

South side

Time -	Size Sample	pH	Cond. Stand 575-700	Temp -	Total Flow -
1015 -	400ml -	8.1	8000	18°C -	3.5 sec 1200ml
1130	400	7.5	6000	19°C	4.0 - 1000ml
1300	400	7.8	3800	19.5°C	4.0 - 1200
1400	400	7.7	3000	18.5°C	—

6765.6 flow

.0067 mgd.

North Side

1030	400	8.6	1150	17.0°C
1135	400	8.3	1000	17.0°C
1305	400	8.4	950	18.0°C
1405	400	8.2	960	17.5°C

Bud opened up valves to normal position

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

ORIGINAL TO: G.S.J. II

COPIES TO:

LAB FILES

DATA SUMMARY

Source: Collier Chemical

Collected By: G.S.J. II

Date Collected: 6-11-75

Goal, Pro./Obj.:

Log Number: 75-2293 94

Station:	North	South									STORET
pH	7.9	7.9									00403
Turbidity (JTU)											00070
Conductivity (umhos/cm)@25°C	2,500	4,000									00095
COD											00340
BOD (5 day)											00310
Total Coliform (Col./100ml)											31504
Fecal Coliform (Col./100ml)											31616
NO3-N (Filtered)	200.	360.									00620
NO2-N (Filtered)	N.D.	N.D.									00615
NH3-N (Unfiltered)	55.	85.									00610
T. Kjeldahl-N (Unfiltered)											00625
O-PO4-P (Filtered)	0.02	0.02									00671
Total Phos.-P (Unfiltered)	0.04	0.12									00665
Total Solids	1412	2410									00500
Total Non Vol. Solids	546	945									
Total Suspended Solids	70	184									00530
Total Sus. Non Vol. Solids	46	137									
Color (color units)	56.	60.									

Note: All results are in PPM unless otherwise specified. ND is "None Detected"
Convert those marked with a * to PPB (PPM X 10^3) prior to entry into STORET

Summary By: Stephen D. Bell

Date: 6-25-75