

INTEROFFICE COMMUNICATION

June 2, 1971
Westlake, Louisiana

TO: Mr. J.D. Burns - Saddle Brook

SUBJECT: Environmental Health Report
Continental VCM Plant - June 1971

A) Status of Active Budget Items

1) Plant Primary Treatment System Revisions

The oil skimmer has been operational for the past month and has apparently lowered the COD readings appreciably. It appears to work well and collects several hundred gallons of oil per month. The steam stripper system was started up and the pump, mixer, and pH control systems were tested satisfactorily. The system has been shut down waiting installation of new overhead piping and a carbon condenser for the steam stripper. It will probably be restarted during July 1971 and put into full operation then. No slop EDC was removed from T-2 pit this month.

2) Secondary Waste Treatment System

The selected contractor for earthwork and concreting was not able to be bonded and a one-month delay resulted because of these bonding problems. Alternate contractors are now being checked for bonds. All bids have been received on the instrument installation and instrument building construction and the contractors picked. Because of bonding delays, the excavation work will probably start around June 15, 1971 and the entire project should complete during December 1971.

3) Slop Caustic Collection System

Piping is proceeding well on this project and the tank has been hydro-tested. The system should be completed during June 1971.

4) Copper Removal System

This system will be hooked up on a temporary basis during the catalyst replacement outage and will be tested. The concrete pit and trench have not been constructed and will not be available. However, a good test of the system should be possible using temporary hookups. Final completion of all work on this project will be after October 1971.

B) Current Developments

1) Analytical Work

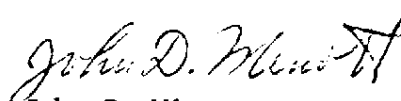
Considerable laboratory work on special tests for the 1899 Refuse Act forms was done. Two samples were also sent to Ponca City for additional tests which could not be run by the plant. "BOD bottle tests"

have shown increased EDC removal of up to 95%, but averaging around 85%. COD levels have dropped this month due to the skimmer being put into operation, plus more stable plant operations. No work has been done on the C-500 vent Cl_2 analysis question, due to the water analysis mentioned above. A special water sample has been sent to Betz Labs to analyze for slimicide levels (a cooling tower treatment) in the final plant effluent.

2) 1899 Refuse Act Permit

The 1899 Act Permit forms were received by mail on May 10. Revised forms are expected in the mail shortly. The VCM Plant will have to report on 45 variables in this report, many never tested previously. If lab analyses by Ponca City can be completed by June 7 (as is expected) the completed forms will be mailed to Saddle Brook for handling by June 18. Many variables will be reported on the basis of a single test, and will be so noted on the permit.

A "Letter of Certification" from the State Stream Control Commission was requested and has been received, so only EPA and Corps of Engineers approval will be required for the final permit. Most likely problem areas on the permit will be pH, Cr, Cu, EDC and BOD levels in the plant effluent. A three-stage implementation plan is shown on the permit application and the final stage will solve the BOD, EDC and pH problems. Chromium and copper levels will not be affected by any of the present plant projects. The State "Letter of Certification" has approved the above three-stage implementation plan.


John D. Minott
Senior Process Engineer

JDM-BS

cc: LNV-DOP-RDG-RHG-PLF-GBJ

C-500 STACK GAS ANALYSES - MAY 1971

Date	ppm EDC	ppm VCM	ppm ETCl	ppm Cl ₂	ppm HCl	ppm Misc. Organics	Mole % Ethylene	Mole % CO ₂	Mole % O ₂	Mole % CO	Mole % Methane	Remarks
5/5	3530	1000	7100	30	6050	130	0.47	1.65	3.10	Tr	Tr	NH ₃ = 0.1 ppm N
5/12	2420	687	4861	37	5450	-	0.51	1.77	1.67	0.14	.05	NH ₃ = 0.1 ppm N
5/20	1062	420	2932	27	5450	-	0.20	1.49	3.77	0.09	.09	
5/26	1865	663	2864	27	6000	-	0.31	1.73	5.34	0.86	0.28	

PLANT WATER EFFLUENTS - MAY 1971
24-Hour Composites

Date	pH	ppm EDC	ppm VCM	ppm ETCl	ppm For- mates	ppm other organics	ppm Total Solids	ppm Susp. Solids	ppm CRO ₄	ppm PO ₄	ppm Cl	ppm Fe	ppm Cu	ppm BOD	ppm COD	Color Apha	Turb- ity J.T.U.	Temp °F	Flow gpm	
5/3	4.2	1398	N11	16	722	160	10452	1540	0.8	8.5	5040	5.0	1.6	1310	1680	20	< 5	87.7°	400	*
5/10	6.2	1470	23	10	699	141	10400	200	6.0	3.3	6400	0.6	0.15	1310	480	>30	47	87.8°	31	
5/17	2.5	2144	33	N11	704	244	9924	612	6.0	48.0	9400	15.0	2.8	1312	880	25	40	84.7°	400	**
5/23	2.4	1509	N11	20	685	82	8492	260	2.3	3.0	4000	9.2	0.32	-	1280	80	5	85 °	533	***

REMARKS: * NH₃ = 56 ppm N
 ** Sulfate = 180 ppm; NH₃ = 46 ppm N
 *** NH₃ = 72.6 ppm N; Sulfate = 160 ppm

CCR 000060534

January to December 1971

JAN

APR

JULY

OCT

1st Quarter

2nd Quarter

3rd Quarter

4th Quarter

Water Sampling

Process Engineering and Laboratory

Air Sampling

Process Engineering and Laboratory

Primary Water
Treatment

Rebuild of Steam Stripper

Startup

Install Oil Skimmer

Secondary Waste
Treatment

CED Design Work

Startup

Purchasing

Construction

C-500 Prescrubber

Purchasing

Construction

Copper Removal
System

Purchasing

Test

Construction

Low Pressure Con-
densate Collection
System

Repair Damage

Finish Construction

Tie-ins

Dry Crude Tank Fume
Scrubber

Purchasing

Construction

Slop Caustic Collec-
tion System

Purchasing

Construction

Startup

Chromate Removal System

Engineering

Estimate

Plant Testing

New Exchanger for C-101

Purchase

Mechanical Engineering

Construction

CCR 000060535