

PL7

To: Vista's Lake Charles Personnel

From: Lake Charles Plant Managers

Date: March 9, 1990

Interoffice
Communication

Subject: Toxic Characteristic (TC) Environmental Remediation
Project Organization - LCCC

VISTA

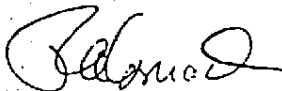
There are several projects to be executed at LCCC in response to the recently promulgated TC regulation. Basically, we will (1) re-route all TC wastewater streams to the VCM wastewater treatment system, (2) press and load LCVCM biological solids and LCLAB calcium fluoride solids at the VCM ASU area, and (3) bioremediate all LCCP and LCLAB pond sludges to below TC levels. This will reduce the number of sites that will become RCRA due to TC to only one, the VCM ASU. In order to accomplish this, we will have to spend \$5-8MM in the next 6-9 months. However, if successful, this will avoid expenditures of \$20-30MM over the next 2-4 years.

The TC Remediation Project is large and difficult and must be done quickly. It involves all three Lake Charles plants. In order to provide cohesive guidance to this effort, a steering team is being established and is composed of:

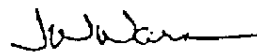
Paul Kober, LCVCM Plant Superintendent
Ted Wall, LCLAB Plant Superintendent
Paul Carrico, LCCP Plant Superintendent
Jim Shamburger, Lake Charles Engineering Coordinator, TC Project

Also, Jim Shamburger, LCCP Senior Process Engineer, is being assigned as Lake Charles Engineering Coordinator for this project. Jim will coordinate the efforts of Process Engineers, Project Engineers, and other project personnel from all three plants who are working on this project.

As we said before, this is a large and difficult project, but very important to Vista. We are looking forward to a cooperative and successful effort from Vista personnel from all three plants. Let's all give these people our full support.



R. A. Conrad
Plant Manager
LCVCM



J. W. Ware
Plant Manager
LCLAB



J. Friend
Plant Manager
LCCP

mbr

CWH 000010294

TO: Distribution

FROM: S. V. Corkran

DATE: March 30, 1990

Interoffice

Communication SUBJECT: TC Transfer ASU Acclimation

VISTA

Transfer of TC material to the VCM ASU will increase organic loading on the ASU by approximately 350%. This number is based on single-point COD and TOD data. Attached are hydraulic and organic stream data used to base this loading estimate, and an acclimation schedule.

In general, methanol will be used to increase organic loading on the ASU until the LCCP TC Transfer system is installed. The methanol is easily flow controlled by VCM personnel. When the TC transfer system is operational, the organic loading will be replaced, in two steps. with an appropriate loading of TC water. The required rate will be determined by TOD analysis at LCVCM and will be controlled by LCCP personnel. LCCP must be able to route the set amount to VCM and contain or divert the remainder to the LCCP Secondary for ~ 2 days to allow a smooth transition.

Discussions with Jim Shamburger (LCCP) on 3/28 indicated that installation of a floating roof on the fuel oil tank, if agreed upon, would probably result in a startup date of 4/16. This is consistent with the attached schedule. The loading increase schedule is significantly more aggressive than in the past; however, the rate will be increased ahead of schedule if the condition of the system is favorable. By 4/18, all of the Phase I TC wastewater should be directed into the VCM ASU.

Sandra Corkran

S. V. Corkran
Process Engineer

br(4)

cc: PJK JGC SAR GWB BJH SAW
CRW RHR (Houston)
JCS WPS TRB (LCCP)

CWH 000010295

TC TRANSFER HYDRAULIC/ORGANIC OVERVIEW

TC Transfer to VCM (GPM)

Timing Phase 1 - April 16, 1990
 Phase 2 - July 1, 1990 (After EXAM T/A)
 Phase 3 - October, 1990

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>
Ethylene Quench Water	150	150	-
LAB Wastewater	80	80	80
Ethylene Oily Water	<u>-</u>	<u>120</u>	<u>120</u>
Sewer (OWS)	230	350	200

Hydraulic Diversion From ASU (GPM)

	<u>Phase 1</u>
Cooling Tower Blowdown	170
Incinerator Acid	<u>100</u>
	270

COD Data

<u>Stream</u>	<u>PPM COD</u>
Quench Water	5,838
LAB Wastewater	540
OWS	501
Cooling Tower Blowdown	38 (TOD)
Incinerator Acid	1,725

Organic Loading Effect of Phase I

<u>Stream</u>	<u>Lbs./Day COD (TOD) to ASU</u>
C.T. B/D	-74
Incinerator Acid	-2,062
Quench Water	+10,466
LAB Wastewater	+516
Net Effect	+8,846 lbs./day
Avg. ASU Feed	~3,000 lbs./day

TC TRANSFER ACCLIMATION SCHEDULE

Ethylene/LAB Composite Stream - 230 GPM, 3,995 ppm COD/TOD, 11,000 lbs. TOD/Day Transfer

<u>Date</u>	<u>Comment</u>	<u>MLBS TOD/DAY</u>		<u>MeOH</u>	<u>GPM TC Water (1)</u>
		<u>Increase</u>	<u>Total</u>		
3/28	MeOH Addition	1	1	.1	0
3/30	MeOH Addition	1	2	.2	0
4/02	MeOH Addition	1	3	.3	0
4/05	MeOH Addition	1	4	.4	0
4/09	MeOH Addition	1	5	.5	0
4/12	MeOH Addition	2	7	.7	0
4/15	MeOH Addition	2	9	.9	0
4/16	Replace 1/2 of MeOH w/TC	0	9	.5	~84
4/18	Replace remainder of MeOH w/TC Water and add last 2M lbs. of loading	2	11	0	~230

Actual TC wastewater transfer rate from 4/16-4/18 will be determined by TOD analysis to attain desired organic transfer.

CWH 000010297

TC WASTEWATER TRANSFER CONTROL/SAMPLING

Once TC wastewater transfer to VCM begins (est. 4/16), the VCM offsite Pumper/Loader will catch a sample of the water discharging into the West Basin every 4 hours. The lab will run a TOD analysis and will inform the VCM Shift Supervisor (S/S) of the result. The S/S will determine the desired flowrate and inform the Steam Plant Control Room at LCCP (494-5310) of the setpoint. Steam Plant personnel will be responsible for making the appropriate adjustment in flow.

This flow control operation will last ~ 2 days (4/16-4/18) until the remainder of the Methanol is backed out and all of the TC wastewater is directed to the West Basin.

Once the entire stream is being transferred, a TOD analysis will be conducted each week day and the result included on the VCM Secondary Log. LCCP will record flow data.

To: Distribution

POL-C
POL-H

From: T.R. Bell
Date: March 20, 1990

Interoffice
Communication

Subject: Update on TC Sampling Efforts at LCCP

VISTA

Surface grab sludge samples from the North and South Lagoons, Stormwater Diversion Ponds and Sand Filters, as well as the Bio Solids Digester, Polishing Pond and Holding Pond have been caught and analyzed. The Toxicity Characteristics Leaching Procedure (TCLP) was used for the analysis of the volatile organics in the sludge samples.

The results from these samples, as well as those taken for R&D indicate the sludges in the North and South Lagoons, the North and South Stormwater Diversion Ponds and the Holding Pond contain benzene concentrations above 500 ppb, the proposed TC listed level. The final publication of the Final Rule for Toxicity Characteristics Revisions in the federal register is expected in the middle of March. In order to prevent the listing and RCRA permitting of the LCCP Wastewater Treatment System as a hazardous waste facility, these sludges must either be removed from the ponds, or be bioremediated to obtain benzene concentrations below 500 ppb.

Although the samples from both the North and South Sand Filters did not contain benzene above 500 ppb, solids from the Holding Pond have been transferred to the sand filters in the past. Accurate sampling of these facilities is difficult, due to the stratification of the solids. It is recommended that these facilities be cleared of their solids to insure the absence of TC materials.

PED has developed a screening and sampling procedure based on standard SW-846 (v.s. EPA, 1986a). This plan is a necessary step in the reclassification of the LCCC surface facilities as nonhazardous impoundments. However, this plan has not yet been approved by the DEQ. Total core and composite sampling of these facilities will be postponed until the sample plan has been approved.

However, sampling must be performed, prior to bioremediation, to allow the proper characterization of the sludges in the impoundments. Remediation Technologies, Inc., RETEK, has been contracted by R&D to perform core sampling on the North and South Lagoons and Stormwater Diversion Ponds. Three cores from three different locations will be taken from each lagoon and pond. A distinct sample will be taken for each foot integral of sludge from the surface of the sludge to the cement bottom of the lagoons or the clear, uncontaminated ground (compacted clay) under the Stormwater Diversion Ponds. Where possible, the resamples will be taken in accordance with the aforementioned screening and sampling procedure.

CWH 000010299

Distribution
March 20, 1990
Page 2

The foot integral samples will be analyzed, by American Laboratories and Research Services, for volatiles, using zero head space analysis. These samples will be analyzed for percent solids by the LCCP laboratory.

Three additional core samples will be taken from each facility. These cores will be individual consolidated to form a total of twelve composite samples. These composites will then be split into three parts. American Labs will perform a complete hazardous waste characterization on these samples: corrosivity, ignitability, reactivity, and a complete TCLP for metals, pesticides, herbicides, volatile organics, acid fraction and base neutral fraction. The LCVCM laboratory will perform the TCLP analysis for volatiles only on these composite samples. The LCCP laboratory will perform analyses for volatile suspended solids (VSS) and total suspended solids (TSS) on these samples as well. A microscopic evaluation for the microbial population and morphology of the solids on all samples will be performed by Allen Nielsen.

The sampling will be started March 22. It will take approximately one week to complete the sampling, depending on the actual sludge depths, conditions and safety precautions necessary. The results from the samples will be available in early to mid-April, depending on the laboratory turnaround time. Preliminary bioremediation will be started on the Stormwater Diversion Pond the last week of March.

Gwendolyn R Bell

T.R. Bell

mam

cc: JF PDC CRD MLA JLJ DMJ GLF JCS NER DKW WPS ECG - LCCP
PLF - LCVCM
VWW JRR AMN JRH - Austin
CRW TWH WSC - Houston

CWH 000010300