

CHEMICALS



INTEROFFICE / LAKE CHARLES

cc Oglethorpe F&T

*Carter MC
Oglethorpe*

TO Dan Wiley

DATE September 14, 1977

FROM J. R. Darbonne

SUBJECT Process Pad Storm Water

I talked to Mr. Jack Cearley from Conoco about our problem in handling process water to treatment during a storm and asked him what they were doing.

He said their VCM waste treatment pond receives all water from the process pads. He said the water from the pad gravitates to the pond. The lines are large enough to take a 3 1/2 inch-per-hour rain. (He said it rains more than that only every 10 years.)

*Every 10 years 1 rain
3 1/2 in. per hour
Total rain in
an hour. Rate
may be higher*

They have a 4.5 million gallon diversion pond used when there is a storm. Then, after the storm, the water in the pond is pumped to treatment.

I also talked to Harold Brantley from Olin and he said that waste treatment sumps from process pads are designed to handle rains of 1 1/2" per hour. He said it is impossible to handle a storm and he doesn't worry about the water after the first flushing of the sump. He said the first flushing of the sump will remove all the contaminants and the overflow goes to the storm sewer. The overflow is then considered as being storm sewer water.

low!

Then I talked to Jim Mathis of Firestone and was told that they have three process pads, each with a sump and pump. The pads have curbs to hold water inside and each of the pumps will pump 2100 GPM, which is doing a good job.

He said that when there is a storm, other areas drain into two large 15' wide by 8' deep ditches that run the length of the plant on each side. They can feed 800 GPM from these ditches when it is not raining.

He also said that small leaks or one-gallon spills are what give them the most trouble. He demands good housekeeping and daily rounds by supervision. Jim has invited us to visit him any time.

I talked to Wally Engelken of Cities Service and he said that all process pads are gravity flowed to treatment ponds and he has no problems.

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Then thinking about our set-up, he suggested that we call Mike Ringal in Baton Rouge (504-292-1920) and ask about his low-lift pump. This is a Hercules screw pump that should be good for this service. He said he would have it go on with high level and off with low level. It should be designed to pump 3 $\frac{1}{2}$ " per hour rain runoff from the process pad.

/as

cc: J. E. Wyche
W. J. Peard



CHEMICALS



INDUSTRIES

LWC MC
INTEROFFICE / LAKE CHARLES

TO Distribution DATE December 16, 1977
FROM D. E. Wiley SUBJECT Hydrocarbon Waste Water Treatment

My brief exposure to the treatment of chlorinated hydrocarbon-contaminated waste water from Plant B has caused me to seriously question the design criteria now being used for new plant design. Let me hasten to add that I don't know what the design criteria should be; however, new petrochemical facilities are coming on line which are designed to contain all rainwater until it can be analyzed and cleared for discharge to navigable waterways. We don't do this now.

It seems to me there are at least two key questions that must be answered before a containment/treatment policy can be formulated:

1. Will collecting a certain quantity of rainwater from the pad area of an operating unit be always sufficient to flush away residual organics before such organics are washed into the storm sewer, thereby resulting in a discharge violation?
2. What probability exists for some operating mishap to occur after the initial flush, thereby dumping organics into the sewer and causing a violation?

Unfortunately, to answer these questions would require a lot of experimental work, but such activity may be justified. The 420 lb/day NPDES permit level we now operate under may be adequate for the current Plant B facility, but what about the contribution to the sewer from new facilities such as Tri-Ethane II? New facilities will increase the amount of organics in the sewer. How much remains to be seen.

The following forward program is suggested as one way to develop answers to the questions raised above:

1. Implement a sampling program in Plant B which can be put into effect during rainy periods to measure the amount of organics washed from individual units into the sewer.
2. Engineering contractors, and chemical plants similar to Plant B operating units, should be contacted to learn what design criteria are being used to anticipate the future requirements of Federal pollution statutes (such as the "Zero Discharge" limitations of 1985).

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3. Are there other ways to design the pad areas of our chlorinated organics chemical plants so that excess rain water can be retained in the plant until processed? One suggestion is to dike the pad area, and place a false floor (plate or grating) over the large sump so created.

cg

Distribution:

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