



Environmental  
Protection Agency

Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korleski, Director



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MONTGOME, TATE & LYLE CITRIC ACID

WALBRIDGE, MATT 2010/02/02



Environmental Protection Agency

Southwest District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korfeski, Director

February 2, 2010

RE: NPDES Compliance Evaluation Inspection

Mr. Doug Walton
Tate & Lyle Citric Acid
5600 Brentlinger Drive
Dayton, OH 45414

Dear Mr. Walton:

On January 14, 2010 I met with you and Bradley Brown to conduct a compliance inspection in preparation for the renewal of your facility's NPDES permit. A review of your self-monitoring reports since my previous inspection revealed the following violations:

Table with 4 columns: Date, Parameter, Limit, Reported Value. Rows include pH violations in 2008 and Total Residual Chlorine violation in 2009.

The pH violations in 2008 are associated with the start-up of the new ion exchange system used for softening well water and do not necessitate a response. The residual chlorine limit violation also does not necessitate a response given the discharge is known to be free of chlorine and likely an analytical error.

In addition to the above limit violations, Tate & Lyle reported the following spills and releases:

Table with 2 columns: Date, Event. Rows describe spills of caustic soda, untreated wastewater, and ion exchange wastewater.

In each case Tate & Lyle identified the causes and implemented solutions. It is my hope that these remedies are considered for other facility processes where spills are possible so as to minimize the potential for spills in the future.

Findings from the inspection are as follows:

### **Flow Diagram Update**

You described and illustrated some piping changes that have been implemented with the cooling system serving the fermentation units. The changes provide for the use of well water to supplant the cooling tower system during hot, humid weather. This includes purging the cooling coils prior to switching the discharge to the river. I would be interested in knowing if this system will be automated. You indicated your willingness to provide a block diagram of the new piping system along with relevant operation notes. Please provide this diagram by March 1<sup>st</sup> and I'll incorporate it into your NPDES permit renewal application.

### **pH Analysis**

A brief discussion regarding pH analysis revealed that the pH meter is being calibrated with buffer solutions that, although they are appropriate for process control, are too low for analysis of wastewater discharged to the Great Miami River. Calibration should be done using buffer solutions that bracket the expected pH of the discharge most closely. I believe using 4 and 7 buffers would likely be most appropriate. Calibrations should occur prior to analysis and documented in the meter's log book maintained in the laboratory. Please let me know how you address this issue.

### **Dechlorination**

We discussed the installation of a dechlorination system for those rare instances when potable water is needed when the well water system is down. Please note that it has been determined that a Permit to Install (PTI) will be necessary for any dechlorination system, regardless of how actively it is used. However, as illogical as it sounds, if dechlorination occurred prior to use by the process, a PTI would not be required. Please let me know how you plan to address this issue and, if a PTI will be necessary, when you plan to submit an application to obtain one.

### **Storm Water Pollution Prevention Plan (SWP3)**

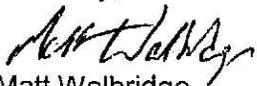
Although I did not ask to see your SWP3 at the time of the inspection, I ask that you make sure it is up-to-date, especially in light of the new limestone rock dam with valved outlet pipe that you constructed in response to the spill last June. If you have an electronic copy of the plan, I would appreciate you e-mailing me a copy.

### **NPDES Permit Renewal**

Finally, we discussed a proposal to include provisional language in the renewed NPDES permit that would allow for potable water (chlorinated) to be discharged during exceptional conditions with only an obligation for Tate & Lyle to notify Ohio EPA of the volume and duration of discharges associated with the use of potable water. If such discharges are deemed too frequent or excessive, then we would likely move to re-open the permit to include more specific monitoring requirements and limits. I will inform you of the proposed permit language when I get into the renewal process.

If you have any questions concerning this letter or the inspection form, please call me at (937) 285-6095.

Sincerely,



Matt Walbridge  
Division of Surface Water



**Section A: National Data System Coding**

Permit Number	NPDES Number	Inspection Date	Inspection Type	Inspector	Facility Type
11N00016*FD	OH0047368	1-14-10	C	S	2

**Section B: Facility Data**

Name and Location of Facility Inspected:	Entry Time	Permit Effective Date
<b>Tate &amp; Lyle Citric Acid 5600 Brentlinger Drive Dayton, OH 45414</b>	1300	7-1-05
	Exit Time	Permit Expiration Date
	1500	6-30-10
Name(s) and Titles of On-Site Representative(s)	Phone Number(s)	
<b>Doug Walton – Engineering</b>	(937) 235-4080	
<b>Bradley Brown – Health, Environment &amp; Safety Coordinator</b>	(937) 235-4081	
Name, Title and Address of Responsible Official:	Phone Number	
<b>Todd Davis – Plant Manager Tate &amp; Lyle Citric Acid 5600 Brentlinger Drive Dayton, OH 45414</b>	(937) 235-4112	

**Section C: Areas Evaluated During Inspection**

(S = Satisfactory, M = Marginal, U = Unsatisfactory, NA = Not Applicable, NE = Not Evaluated)

S	Permit
S	Records/Reports
M	Operations & Maintenance
S	Facility Site Review
S	Self-monitoring Program

S	Flow Measurement	NA	Pretreatment
M	Laboratory	S	Compliance Schedules
S	Effluent/Receiving Waters	NA	Collection System
NA	Sludge Storage/Disposal	NA	Other

**Section D: Summary of Findings/Comments** (Attach additional sheets if necessary)

- Some changes in the use of well water by the fermentation units – will submit an updated process flow diagram.
- Buffers used in calibrating pH meter are too low (2.0 and 4.0). Need to use buffers that bracket the expected range.
- Dechlorination of effluent will require a Permit to Install.
- SWP3 needs to be updated to reflect the new retention structure recently installed.
- Renewed permit will need to address the possibility that potable city water may need to be discharged from the fermentation units when the cooling towers can't provide adequate cooling and supplemental well water isn't available.

Name and Signature of Inspector(s)  Matt Walbridge	Agency / Office / Telephone <b>Ohio EPA / Southwest District Office / (937) 285-6095</b>	Date 2-2-10
Name and Signature of Reviewer(s)  Martyn G. Burt	Agency / Office / Telephone <b>Ohio EPA / Southwest District Office / (937) 285-6034</b>	Date 2/3/10

