

Exhibit 7



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-9720

CERTIFIED MAIL # 7007 0220 0000 0146 9947
RETURN RECEIPT REQUESTED

February 29, 2008

Emerald Performance Materials
1550 County Road 1450 N
Henry, IL 61537

Re: Violation Notice: W-2008-00092
Facility I.D.: IL0001392 – Emerald Performance Materials - Henry

Dear Facility Owner:

This constitutes a Violation Notice pursuant to Section 31(a)(1) of the Illinois Environmental Protection Act, 415 ILCS 5/31(a)(1), and is based upon review of available information and investigation by representatives of the Illinois Environmental Protection Agency ("Illinois EPA").

The Illinois EPA hereby provides notice of violations of environmental statutes, regulations or permits as set forth in Attachment A to this letter. Attachment A includes an explanation of the activities that the Illinois EPA believes may resolve the specified violations, including an estimate of a reasonable time period to complete the necessary activities. However, due to the nature and seriousness of the violations cited, please be advised that resolution of the violations may also require the involvement of a prosecutorial authority for purposes that may include, among others, the imposition of statutory penalties.

A written response, which may include a request for a meeting with representatives of the Illinois EPA to be held at an Illinois EPA facility, must be submitted via certified mail to the Illinois EPA within 45 days of receipt of this letter. The response must address each violation specified in Attachment A and include for each, an explanation of the activities that will be implemented and the time schedule for the completion of each activity. Also, if a pollution prevention activity will be implemented, indicate that intention in any written response. The written response will constitute a proposed Compliance Commitment Agreement ("CCA") pursuant to Section 31 of the Act. The Illinois EPA will review the proposed CCA and will accept or reject the proposal within 30 days of receipt.

ROCKFORD - 4307 North Main Street, Rockford, IL 61103 - (815) 987-7760 DES PLAINES - 9511 W. Harrison St., Des Plaines, IL 60016 - (847) 294-4000
ELGIN - 595 South State, Elgin, IL 60123 - (847) 608-3131 PEORIA - 5415 N. University St., Peoria, IL 61614 - (309) 693-5463
BUREAU OF LAND - PEORIA - 7620 N. University St., Peoria, IL 61614 - (309) 693-5462 CHAMPAIGN - 2125 South First Street, Champaign, IL 61820 - (217) 278-5800
SPRINGFIELD - 4570 S. Sixth Street Rd., Springfield, IL 62706 - (217) 786-6892 COLLINSVILLE - 2009 Mall Street, Collinsville, IL 62234 - (618) 346-5120
MARION - 2309 W. Main St., Suite 116, Marion, IL 62959 - (618) 993-7200

Page 2

Emerald Performance Materials - Henry
VN W-2008-00092

If a timely written response to this Violation Notice is not provided, it shall be considered a waiver of the opportunity to respond and meet, and the Illinois EPA may proceed with a referral to the prosecutorial authority.

Written communications should be directed to BEVERLY BOOKER at the ILLINOIS EPA, BUREAU OF WATER, CAS #19, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276. All communications must include reference to this Violation Notice number, W-2008-00092.

Questions regarding this Violation Notice should be directed to Cathy Siders at 217/782-9720.

Sincerely,



Michael S. Garretson, Manager
Compliance Assurance Section
Bureau of Water

Attachment

bcc: Cathy Siders
Beverly Booker
Bruce Yurdin
Peoria Region, WPC
Connie Tonsor, DLC
Jason Boltz, DLC
Records Unit
Marilyn Davenport

ATTACHMENT A

IL0001392

EMERALD PERFORMANCE MATERIALS - HENRY VIOLATION NOTICE NO.: W-2008-00092

Questions regarding the violations identified in this attachment should be directed to CATHY SIDERS at (217) 782-9720.

A review of information available to the Illinois EPA indicates the following violations of statutes, regulations or permits. Included with each type of violation is an explanation of the activities the Illinois EPA believes may resolve the violations including an estimated time period for resolution.

Effluent Violations

Review the treatment plant operations/operational procedures and evaluate the treatment equipment in order to correct the deficiencies which caused the violations. Compliance is expected to be achieved within 30 days.

Violation Date	Violation Description
10/31/2007	A010 Effluent – Total Solids Effluent Limit
Rule/Reg.:	Section 12(a) and (f) of the Act, 415 ILCS 5/12 (a) and (f) (2006), 35 Ill. Adm. Code 304.141(a) and NPDES Permit
12/31/2007	A010 Effluent – Total Solids Effluent Limit
Rule/Reg.:	Section 12(a) and (f) of the Act, 415 ILCS 5/12 (a) and (f) (2006), 35 Ill. Adm. Code 304.141(a) and NPDES Permit
01/31/2008	A010 Effluent – BOD Limit
Rule/Reg.:	Section 12(a) and (f) of the Act, 415 ILCS 5/12 (a) and (f) (2006), 35 Ill. Adm. Code 304.141(a) and NPDES Permit
01/31/2008	A010 Effluent – Total Suspended Solids Effluent Limit
Rule/Reg.:	Section 12(a) and (f) of the Act, 415 ILCS 5/12 (a) and (f) (2006), 35 Ill. Adm. Code 304.141(a) and NPDES Permit



File

EE771047380US

EE771047376US

NPDES Permit 0001392

DATE: 4/2/08

EXPRESS MAIL: EE771047380US
Mr. Jim Kamueller
Illinois Environmental Protection Agency
Regional Office
5415 N. University
Peoria, IL 61614

EXPRESS MAIL: EE771047376US
Illinois Environmental Protection Agency
Bureau of Water, CAS #19
NPDES - Compliance Section
1021 North Grand Avenue East,
P.O. Box 19276
Springfield, IL 62794-9276
Attn: Beverly Booker

Subject: Re: Violation Notice: W-2008-00092

Dear Sirs:

The Emerald Performance Materials plant at Henry, Illinois, having received the Subject Violation Notice: W-2008-00092 would like to request a meeting between Illinois EPA and the Henry Plant representatives within the 45 day period provided by the agency's letter. It is believed that the meeting would serve best to explain the deviations which occurred in the December/January time period. The plant's waste treatment facility is currently operating within its NPDES permit limit and does not expect to have a similar type upset in the future.

Attached to this letter is a summary of events and actions taken by the Emerald plant to mitigate the effect of the upset and to control the waste treatment system during this time period.

We trust this information is adequate. In the event you have questions, please contact us at (309) 364-9411 or by fax at (309) 364-9460 or by e-mail at Dave.Giffin@Emeraldmaterials.com.

Sincerely,

David E. Giffin
H/S/E Manager

cc: Jeff J. Brenner/Brian Denison/File
Attachment

Emerald Polymer Additives, LLC

1550 County Road 1450 N./ Henry, IL 61537 / Phone: 309-364-2311 / Fax: 309-364-9460
www.emeraldmaterials.com



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217/782-9720

CERTIFIED MAIL # 7007 0220 0000 0150 2736
RETURN RECEIPT REQUESTED

May 1, 2008

Mr. Dave Giffin
Emerald Performance Materials
1550 County Road 1450 N
Henry, IL 61537

Re: **Violation Notice: W-2008-00092**
Facility I.D.: IL0001392 - Emerald Performance Materials - Henry

Dear Mr. Giffin:

The Illinois Environmental Protection Agency ("Illinois EPA") acknowledges your request for a meeting, which was held on May 1, 2008. A party that meets with the Illinois EPA is given 21 days after the meeting to submit a proposed Compliance Commitment ("CCA") pursuant to Section 31(a)(5) of the Environmental Protection Act, 415 ILCS 5/31(a)(5).

Section 31(a)(5) requires you to submit a written response within 21 days following the meeting. Because you have requested a meeting, the Illinois EPA will make its decision on the written meeting response within 30 days of receipt of the response. See Section 31(a)(7). Questions regarding this matter should be directed to Cathy Siders at 217/782-9720.

Sincerely,

Michael S. Garretson, Manager
Compliance Assurance Section
Bureau of Water

cc: Cathy Siders
Beverly Booker
Roger Callaway
Bruce Yurdin
Peoria Region, WPC
Connie Tonsor, DLC
Jason Boltz, DLC
Records Unit



Orig: Records Unit w/enclosures
cc: Beverly Booker w/enclosures
Cathy Siders
Roger Callaway
Bruce Yurdin
Peoria Region, WPC
w/enclosures

May 12, 2008

CERTIFIED MAIL: 7006 0810 0006 5101 2157

RECEIVED

MAY 14 2008

IEPA/CAS

Beverly Booker
Illinois Environmental Protection Agency
Bureau of Water, CAS #19
NPDES - Compliance Section
North Grand Avenue East,
P.O.Box 19276
Springfield, IL 62794-9276

Re: Violation Notice: W-2008-00092
Facility I.D.: IL0001392-Emerald Performance Materials-Henry

Dear Ms. Booker:

The Emerald Performance Materials plant in Henry had a number of BOD₅ and Total Suspended Solids exceedences in December of 2007 and January of 2008 which were the subject of the above captioned Violation Notice. The exceedences were the result of a number of independent issues that happened over a short period of time. Each of the issues has been fully corrected as described in our initial letter submitted to the Agency on 4/2/08, a copy of which is attached and incorporated into this response as though fully set out herein.

The first issue occurred during the middle of November. In September we removed one of two side mounted agitators from the Polymer Chemicals Equalization tank. The initial problem with the agitator was a small leak from the seal. Upon further investigation we also found that all the bearings were bad, the shaft was bent and the blades were no longer properly balanced. After getting the proper parts the agitator was repaired and then reinstalled in mid-November. Over the time that the agitator was out, solids in the PC Equalization tank settled out. When the agitator was turned on the solids were re-dispersed. The solids caused a large COD feed increase to the biotreater system which had the effect of killing a portion of our biomass.

At approximately the same time that the agitator was re-installed we found that there was a food to biomass ratio imbalance within the 4 biotreaters. We were overfeeding some of the biotreaters and underfeeding others. This caused the biomass to become fragile and unable to withstand any sudden COD load shifts. The COD load did change significantly as a result of re-dispersed solids discussed above and the result was a large biomass wash out from the secondary clarifier. Loss of biomass in our system decreases the removal of BOD₅.

Typically, the plant's two tertiary aquafilters remove any carryover of solids from the secondary clarifier. However, the significant amount of biomass wash out was too much for the filters to handle. In December we replaced the filter media and did other maintenance to keep the tertiary filters running. But we were unable to catch the large amount of Suspended Solids from leaving our system.

Emerald Polymer Additives, LLC

1550 County Road 1450 N./ Henry, IL 61537 / Phone: 309-364-2311 / Fax: 309-364-9460
www.emeraldmaterials.com

After we repaired the two tertiary aquafilters in mid December, we felt the system was rebounding well. Our biomass was growing and our BOD₅ removal efficiency was improving. PolyOne had a planned outage over the Christmas Holidays. We thought that a Christmas shutdown of many of our processes would help the system rebound by reducing loadings and give us the time necessary to increase our biomass. Unfortunately, the exact opposite occurred.

One specific PolyOne process that was down for 14 days usually contributes ferric chloride to our system. Since the process was down for so long we had a much lower amount of ferric chloride (which provides a source of Fe⁺³ ion that enhances sludge settling) in the system. The lack of ferric chloride caused another significant biomass wash out to occur even though the loadings were reduced. The loss of biomass extended the problems that the system was rebounding from. Biomass was lost which decreased our BOD₅ removal efficiency and increased the carryover of Suspended Solids.

As we have discussed, our treatment system is very complex and it was difficult to recognize the cause and effect of these separate but interrelated events. Once it was determined that the above incidents had occurred, the following steps were taken to resolve them. The agitator was immediately shut off and then gradually brought back on line over five days to reduce the re-disbursement of solids. The F/M ratio to each biotreater was adjusted and controls were put in place to ensure that the same issue does not occur again. The COD feed fluctuation was resolved with additional pH control limits placed on the PC equalization tank and a special Ferric Chloride addition system was put into operation during the 2nd week of January.

As soon as the FeCl₃ addition system was started up, the biomass carryover was stopped and the system has been running well ever since. There was one TSS exceedance in February (55ppm vs. a limit of 50ppm) resulting from the loss of carrier water and polymer to the 2nd clarifier. Since that time no further exceedances have occurred. Our last exceedance was 2/4/08. We believe that the procedural changes that we have implemented will prevent such issues from occurring in the future.

In summary, the 3 causes that led to the exceedances were as follows:

- PC equalization tank agitator start-up.
- Incorrect F/M ratio to each biotreater.
- Loss of ferric chloride addition due to extended Poly One Christmas shut down.

The November/December exceedances were primarily due to the F/M imbalances and the start-up of the 2nd PC equalization tank agitator. The January exceedances were more related to the loss of ferric chloride to the system.

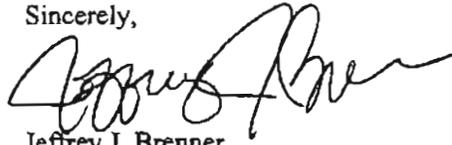
In conclusion, Emerald has implemented changes within our system to prevent further exceedances. However, as discussed in our meeting on 5/7/08, we will also complete the following by 6/30/08:

1. Update our Waste Treatment Operating Procedures to include the steps taken during December and January to resolve the exceedances.
2. Submit with this letter, the Brown Caldwell FBR testing report on the NaSH wash discharge.
3. Contact the IEPA permit section concerning a possible new waste stream that enters our PC equalization tank from the NaSH process.

Ms. Beverly Booker
Page 3
May 12, 2008

We trust this information is sufficient to meet the requirements of explaining the cause and the steps Emerald has taken to correct these exceedances. Emerald requests that this letter and the attachment be accepted as a Compliance Commitment Agreement. Please contact us once you decide to approve the course of action that we are taking. In the event that you have any questions, please don't hesitate to contact Dave Giffin, HSE Manager, at (309)364-9411 or myself.

Sincerely,



Jeffrey J. Brenner
Emerald Performance Materials
Site Manager - Henry
(309)364-9487
jeff.brenner@emeraldmaterials.com

Attachments

cc: Roger Calloway – *Certified Mail* : 7006 0810 0006 5101 2164
Jim Kammuler – *Certified Mail*: 7006 0810 0006 5101 2171
File

Waste Treatment Upset Summary

A. Overview of Waste Treatment Operations (November 2007/January – 2008): The waste treatment system experienced several upsets during November, December and January. Although each upset in itself did not lead to a total upset of the biomass system, a more weakened system resulted. Finally, the system reached a point where it no longer could adequately treat the waste and maintain an appropriate biomass population. During November, there were 3 BOD₅ and 1 Suspended Solids exceedances. During December, there were 7 BOD₅ and 8 Suspended Solids exceedances. In January, there were 15 BOD₅ and 14 Suspended Solids exceedances. In February, there was only 1 Suspended Solids exceedance as a result of loss of carrier water for the polymers to the 2nd Clarifier.

B. Upsets Identified in November/December:

1. F/M (Food/Mass) ratios for individual bioreactors were out of balance even though the entire bioreactor system averaged ~0.3 F/M target.
2. Less clean water was being added to the PC waste stream in an effort to reduce raw material costs.
3. Approximately 1000 gallons of NaSH waste water was discharged to the PC Tank (45% level) on 11/11/2007. This was a new process discharge and the effect of this material on the bioreactors had not been evaluated.
4. One of the two side entering agitators to the PC equalization tank was out of service until mid-November. When putting this agitator back into service (11/15), a high COD was experienced (10,435 mg/l). This activity was stopped.
5. The agitator was finally put back into service over a period of several days (11/26/07). There were no abnormal increases in COD of the PC equalization tank. However, the biomass activity began decreasing shortly after this event and the 2nd clarifier showed significant carryover.
6. South Aqua-filter had to be shutdown for unexpected maintenance on 12/8/07.
7. Sudden shifts in PC tank COD loading occurred:
 - 11/14 to 11/5 – 66% increase
 - 11/30 to 12/1 – 27% increase
 - 12/7 to 12/8 – 39% increase
 - 12/9 to 12/10 – 17% increase
8. Christmas shutdown inherently reduced the presence of ferric chloride as a coagulant aid to the primary system when Poly One shutdown their pre-treatment system.
9. Cold weather reduced the biomass activity during this period of time as well.

C. Actions taken to mitigate the Upsets:

1. The PC feed rate was reduced from 90 gpm to 65 gpm and the C-18 feed rate was reduced from 3 gpm to 1 gpm on 11/27/07 when the biomass activity decreased along with significant solids carryover in the 2nd Clarifier.
2. Due to the inability of the two Aqua-filters to handle the solids carryover, the south Aqua-filter was taken out of service (11/30-Friday) and new sand was placed in it. The second Aqua-filter sand was also changed out (12/3-Monday). Unfortunately, during the weekend of 12/8, the south Aqua-filter had to be shutdown for additional maintenance. Significant amounts of biomass were lost from the 2nd Clarifier and continued to be lost from the 2nd Clarifier through the second week of January.

3. F/M ratios for each bioreactor were readjusted so that each bioreactor individually met the same target value, instead of having all 4 bioreactors collectively meet the target value (12/10/07). A new formula for pro-rating the distribution of flows was established within the Distributed Control System (DCS).
4. Brown and Caldwell conducted Fed Batch Reactor (FBR) testing on 12/18/07 to determine the level of bio-inhibition that was due to the different waste streams being fed to the bioreactors. (See Report dated 1/17/08 attached). Based on the Brown Caldwell FBR testing, the following guidelines were established to help rebuild the biomass activity:
 - a. Control PC tank loading to less than 0.25 F/M.
 - b. Control PC Tank contribution below 18%.
 - c. Increase non-PC tank water as much as the 2nd clarifier will accept.
 - d. Control PC tank loading changes to less than 10%.
5. Due to loss of biomass from the 2nd Clarifier, two 20 yd³ boxes of Equistar Sludge were delivered from the Equistar plant in Morris, Illinois on 12/19/07 and 1/3/08 to help replenish the biomass. Although this provided more biomass, the new sludge required additional time for acclimating and polymer additions had to be re-optimized.
6. On 1/9/08, ferric chloride addition was started to the 2nd clarifier at the mix tank. Once this was started with optimized polymer feeds to the 2nd clarifier, the loss of biomass from the 2nd clarifier stopped and the system began to rebuild its biomass.
7. During December and January, production rates were significantly curtailed to provide the appropriate conditions for rebuilding biomass activity.

D. Actions Still in Progress :

1. Brown and Caldwell are conducting FBR testing of the NaSH waste discharge that was identified as a potential upset. Although the plant has discharged this waste to the bio-system since this time period without incident, the FBR will quantify any bio-inhibitions that may be present.
2. System is continually being evaluated with the assistance of Brown and Caldwell to insure long-term compliance.

501 Great Circle Road, Suite 150
Nashville, TN 37228

Tel: 615-255-2288
Fax: 615-256-8332

www.browncaldwell.com

January 17, 2008



Mr. Dave Giffin
Emerald Performance Materials, LLC
Health, Safety and Environmental Manager
1550 County Road 1450 North
Henry, Illinois 61537

134420

Subject: Treatability Results of Fed Batch Reactor Testing

Dear Dave:

Summarized below are the background, methods and materials, and results and recommendations generated from the fed batch reactor (FBR) testing of the Emerald Performance Materials-Henry Plant wastewaters. The testing was performed by Brown and Caldwell (BC) using the return activated sludge, PVC wastewater, PC wastewater, and C-18 wastewater from the Henry Plant and waste activated sludge from the Nearby Equistar facility.

Background

The Henry Plant has historically experienced bio-inhibition in its wastewater treatment facility when it received significant loadings of PC and un-pretreated C-18 wastewater. This bio-inhibition has historically been controlled by carefully controlling the loading of PC wastewater and by pretreating C-18 wastewater with alkaline peroxidation.

In the last year, the PC wastewater has begun receiving ethanol washes from the NASH (sodium hyposulfite) column. It is uncertain how this wastewater has affected allowable PC wastewater loading rates on the wastewater treatment facility. In late Spring of 2007, pretreatment of C-18 wastewater with hydrogen peroxide was ceased. The un-pretreated began to displace pretreated C-18 wastewater housed in a tank with an average hydraulic retention time (HRT) of 100 days. In November 2007, the Henry Plant went through a turnaround. During this period and for weeks afterwards, the Chemical Oxygen Demand (COD) concentration in the PC tank exceeded 9000 mg/L versus the normal 7,000 mg/L. Within two weeks of this spike in PC tank COD concentration, the effluent from the wastewater treatment plant had increased from 700 mg/L to greater than 900 mg/L and the effluent BOD consistently discharged an effluent BOD in excess of the monthly average limit of 20 mg/L.

It is uncertain which factors most significantly contributed to the elevated effluent BOD concentrations. Brown and Caldwell recommended acute (short-term) testing to attempt to identify the causes of these elevated effluent BOD concentrations.

Methods and Materials

Wastewaters

On December 18, 2007, samples of return activated sludge (RAS) from the Henry Plant along with samples from the PVC tank, PC tank, C-18 tank, 8100 polymer, and 9602 polymer were received at BC's treatability laboratory in Nashville, Tennessee. The samples were characterized as received. Table 1 summarizes the characterization data.

	pH s.u.	MLSS mg/L	VSS mg/L	TDS mg/L	TDFS mg/L
RAS	8.39	2,840	2,620	10,720	10,240
PVC	8.35	8,060	4,800	5,940	5,580
PC	8.87	990	700	46,280	43,860
C-18	9.17	98	64	52,080	49,920

Note: PC had a total and soluble (0.45 μ m filtered) COD of 11,000 mg/L and 9,000 mg/L, respectively.

FBR Testing

FBR testing is a valuable tool to measure the impact that a wastewater may have on an existing treatment plant. The FBR test is designed to measure the effect of a continuously increasing load on a biomass culture by monitoring specific oxygen uptake rate (SOUR) and substrate (e.g., COD) biodegradation with time. The SOUR is a direct measure of biomass activity and therefore can be the more sensitive measure when seeking to identify inhibition. During an FBR test, inhibition is characterized by an irreversible decrease in SOUR. This change in SOUR is typically accompanied by a decrease in substrate biodegradation. Substrate biodegradation is quantified by measuring the concentration of soluble chemical oxygen demand (COD) surrounding the biomass throughout the tests.

The FBR tests were performed in three 2-L Pyrex reactors that were aerated and mixed by laboratory mixers. Each of the three reactors initially contained 500 mL of twice-concentrated RAS, which was initially rinsed in TDS adjusted tap water at a 5:1 dilution ratio. The three reactors were then fed with three separate feeds using peristaltic pumps at the peak F/M experienced during the upset (0.7 mg COD/mg MLVSS/day): a control test with standard amounts of PC and no C-18 (without C-18), a test with C-18 added (with C-18), and a test with no C-18, but an excessive amount of PC material (Heavy PC). Aeration provided dissolved oxygen concentrations in the reactors of greater than 7.0 mg/L. The pH in the reactors was maintained between 7.0 and 8.5 s.u. through the addition of sulfuric acid as necessary. The tests were designed to run over a 32-hour period with samples taken after 0.5, 1, 2, 3, 4, 5, 6, 8, 9, 11, 12, 19, 20, 31, and 32 hours of reaction time. Samples were analyzed for soluble COD and SOUR.

Soluble is defined as the COD remaining in the filtrate after 0.45 μm filtration. Initial and final mixed liquor suspended solids concentrations were also measured.

RAS Dilution Testing

Dilution testing was performed in Pyrex beakers. A 500-mL aliquot of RAS was added to each of four beakers and aerated. Beaker 1 received no dilution, while Beaker 2 received an additional 500 mL of TDS adjusted tap water, Beaker 3 received 1000 mL of TDS adjusted tap water and Beaker 4 received 2000 mL of TDS adjusted tap water. This yielded total volumes of 0.5, 1, 1.5, and 2.5 L, respectively. These mixtures were aerated 30 minutes, and then oxygen uptake rates were measured. Each beaker then received 1 mL of pure grain ethanol, aerated for an additional 30 minutes, and oxygen uptake rates were again measured.

Equistar Testing

The Equistar testing was performed in two 1-L Pyrex beakers. One beaker contained 500 mL of RAS, while the other contained 500 mL of Equistar MLSS. Each was aerated for 30 minutes, then oxygen uptake rates were measured. The Equistar bugs were then centrifuged for 5 minutes and the supernatant was decanted. The remaining "plug" of Equistar bugs was added to the 500 mL of Emerald RAS, thoroughly mixed, aerated for an additional 30 minutes and another OUR was measured. Next, the mixture of two biomasses was spiked with 1 mL of ethanol, aerated for 30 minutes and the OUR was measured. This mixture was then aerated for another 19 hours, yielding a total aerating time of approximately 20 hours. At the 20th hour, the mixture was again spiked with 1 mL of ethanol and aerated for 30 minutes, and a final OUR was measured.

Results and Recommendations

FBR Testing

The results of the FBR testing are presented graphically in Figures 1 through 3.

As stated earlier, three fed batch reactors were employed for this treatability test: a control test with standard amounts of PC and no C-18 (without C-18), a test with C-18 added (with C-18), and a test with no C-18, but an excessive amount of PC material (Heavy PC). The highest recorded SOUR value among all three reactors was 0.84 mg O₂/gm VSS-hr, indicating the biomass used in all three FBR tests was inhibited even at initial low wastewater loadings. This indicates that the initial sludge washing was unable to eliminate the bio-inhibition. Consequently, the addition of "clean" wastewater at the Henry Plant will not eliminate the bio-inhibition but should reduce it as tests described below indicate.

The "without C-18" FBR showed a relatively constant oxygen uptake rate; however, COD removal showed signs of inhibition. Initially, COD removal rate seemed healthy and showed consistent increase during the first stages of the test. However, after a PC fraction of approximately 16 percent was reached, the COD removal rate began to

drop, suggesting that a PC fraction of 16 percent or greater begins to create an acute (immediate) inhibitory environment (Figure 1).

The FBR with C-18 showed no signs of acute inhibition at influent flowrate concentrations up to 0.95 percent influent flowrate contribution. SOUR values remained fairly consistent throughout the duration of the test, while COD removal rates were higher during the latter stages of the test (Figure 2). It is uncertain if this stream exerts a chronic (long-term) impact on bio-inhibition.

The "Heavy PC" FBR showed the most obvious signs of acute inhibition. At a PC fraction of about 17 percent, both SOUR values and COD removal rates began to gradually decline (Figure 3).

The un-pretreated C-18 wastewater did not indicate signs of acute inhibition in these tests up to a flow contribution of 0.95 percent. PC fractions of 16 percent or greater appear to cause acute inhibition when the PC filtered COD is 9000 mg/L. It is recommended that the PC tank flow contribution be kept less than 15 percent of the biotreater feed (not counting RAS flow) and less than 1350 mg/L COD contribution in the biotreater feed (not counting RAS flow).

This recommendation will address acute bio-inhibition. If only acute affects are present, this recommendation should restore the system to typical performance. If chronic bio-inhibition is also present, then this recommendation will not provide complete restoration of system performance. Longer term testing (1 to 3 sludge age duration or 50 to 150 days) would be required to identify the impact of PC and C-18 wastewaters on chronic bio-inhibition.

RAS Dilution Testing

Figure 4 presents the results from the RAS dilution testing.

Results from the RAS dilution test indicated that increasing "clean" wastewater addition will improve biomass performance. Higher dilutions resulted in higher SOUR values with and without ethanol spiking. Increasing "clean" wastewater addition to the treatment system is recommended to minimize inhibition. It should be noted that the highest SOUR achieved was less than 2 mg O₂/gm VSS-hr, indicating the biomass remained inhibited even following significant dilution. This indicates that the addition of "clean" wastewater at the Henry Plant will not eliminate the bio-inhibition but should reduce it.

Equistar Testing

Table 2 presents the results from the Equistar activated sludge testing.

The Equistar test indicated that adding Equistar biomass to the Emerald RAS may inhibit the Equistar bugs, but the Equistar biomass will survive and increase overall activated sludge performance. During the testing, the OUR of the Equistar bacteria alone was 60 mg/L-hr, but dropped to 32 mg/L-hr after being thoroughly mixed into the Emerald RAS and aerated for 30 minutes. After this mixture was spiked with ethanol, the OUR increased to 105 mg/L-hr. After the mixture was aerated overnight

Mr. Dave Giffin
Emerald Performance Materials, LLC
January 4, 2008
Page 5

and again spiked with ethanol, the OUR was only 30 mg/L-hr (29 percent of its initial rate).

The Equistar biomass will significantly be inhibited when added to the Henry Plant biomass. However, it will survive after and offer about 29 percent of its initial treatment capability. In spite of the decline in performance, however, it is recommended that the Equistar biomass continue to be seeded into the system until BOD compliance is consistently regained.

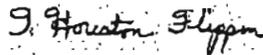
Equistar Testing	Emerald RAS	Equistar	Equistar + RAS T = 30 min	Equistar + RAS T = 1 hr	Equistar + RAS T = 20 hr
SOUR (mg/gm.hr)	0.69	1.42	1.00	3.27	0.94

* Ethanol added 30 min prior to SOUR measurement

We appreciated this opportunity to assist Emerald Materials. Please call me to discuss this report after you have had a chance to review it.

Very truly yours,

BROWN AND CALDWELL



Houston Flippin, P.E., DEE
Industrial Wastewater Process Leader

THF:tnb

Limitations:

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Figure 1. Without C-18 (3 pt moving avg)

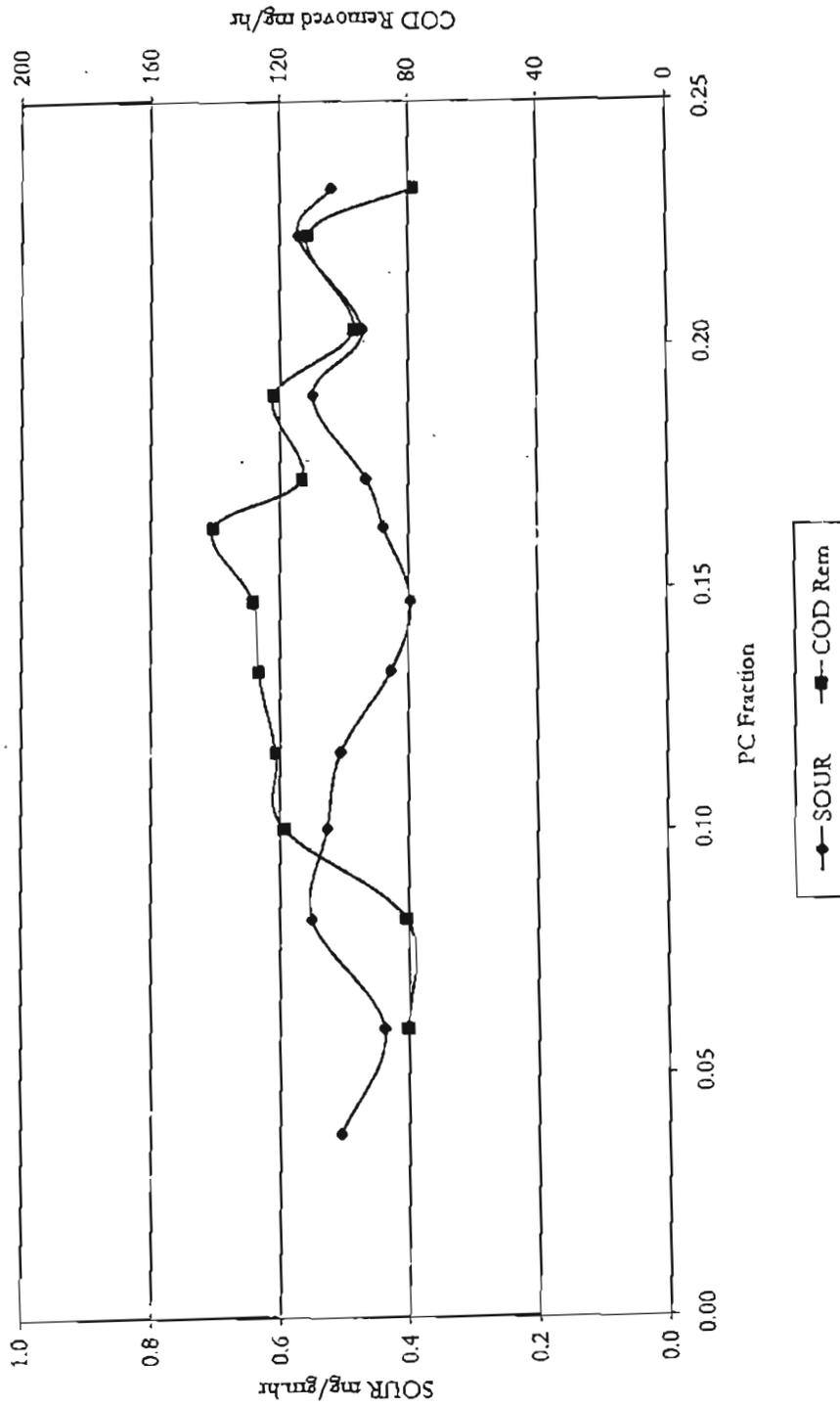


Figure 2. With C-18 (3 pt moving avg)

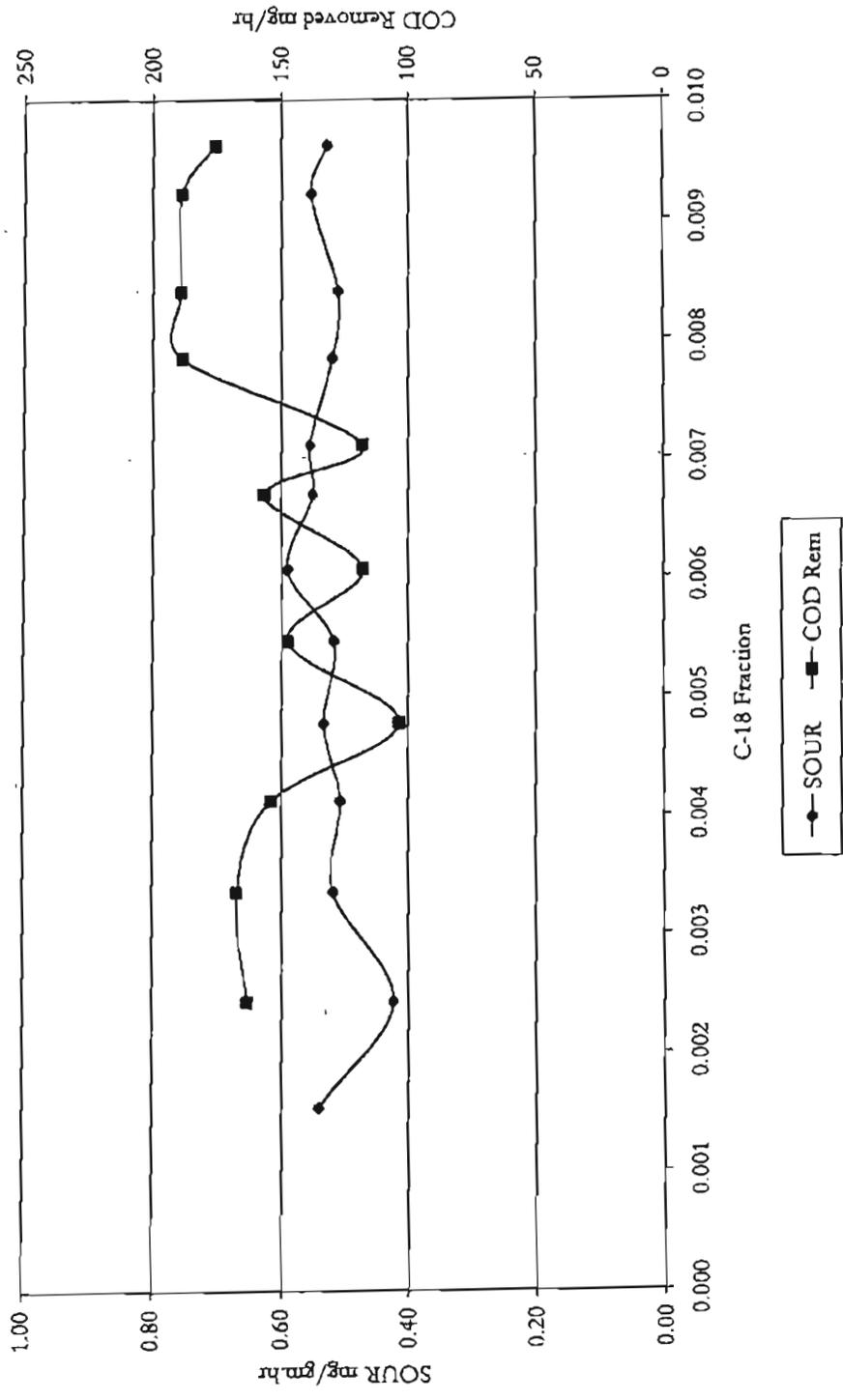


Figure 3. Heavy PC (3 pt moving avg)

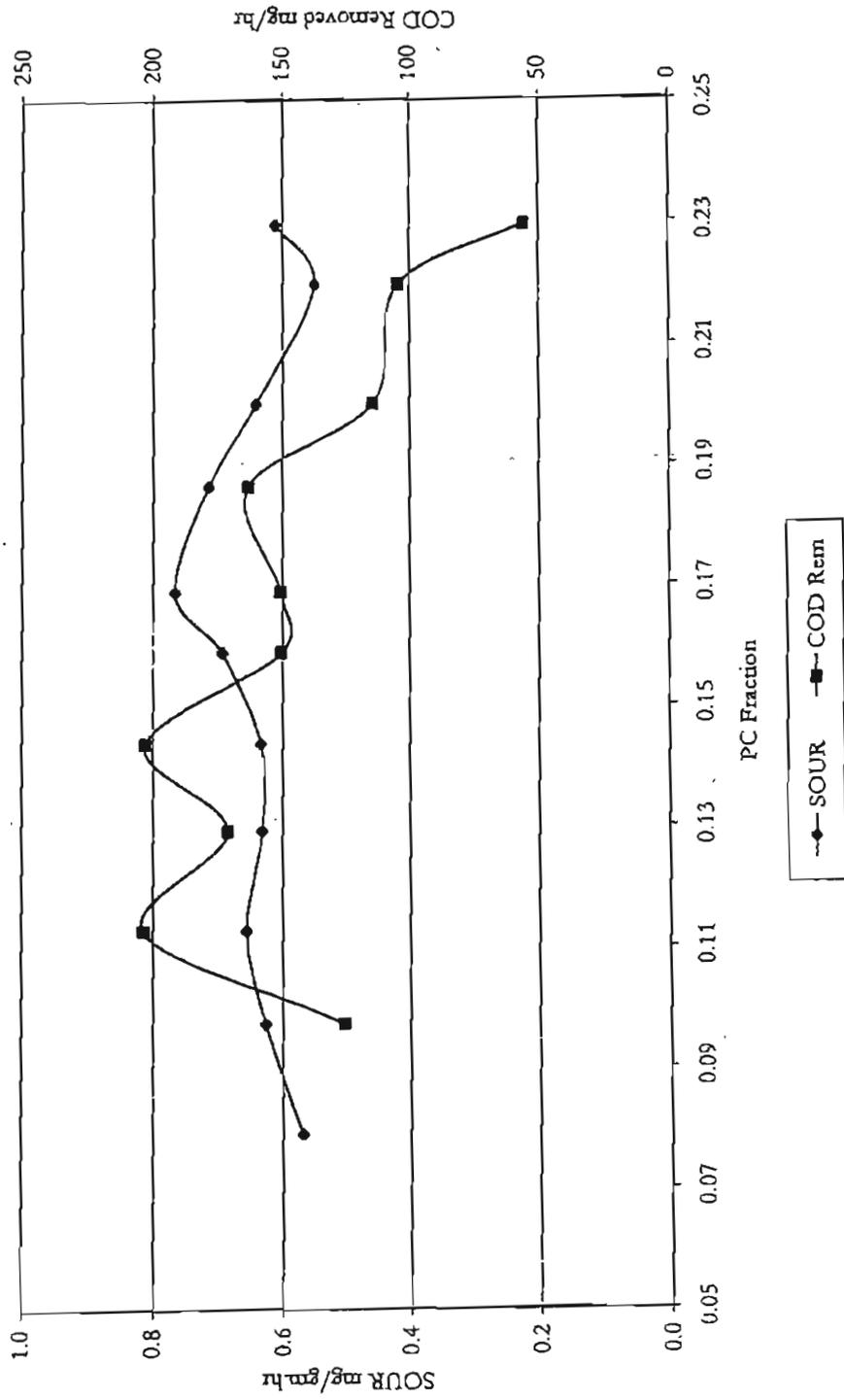
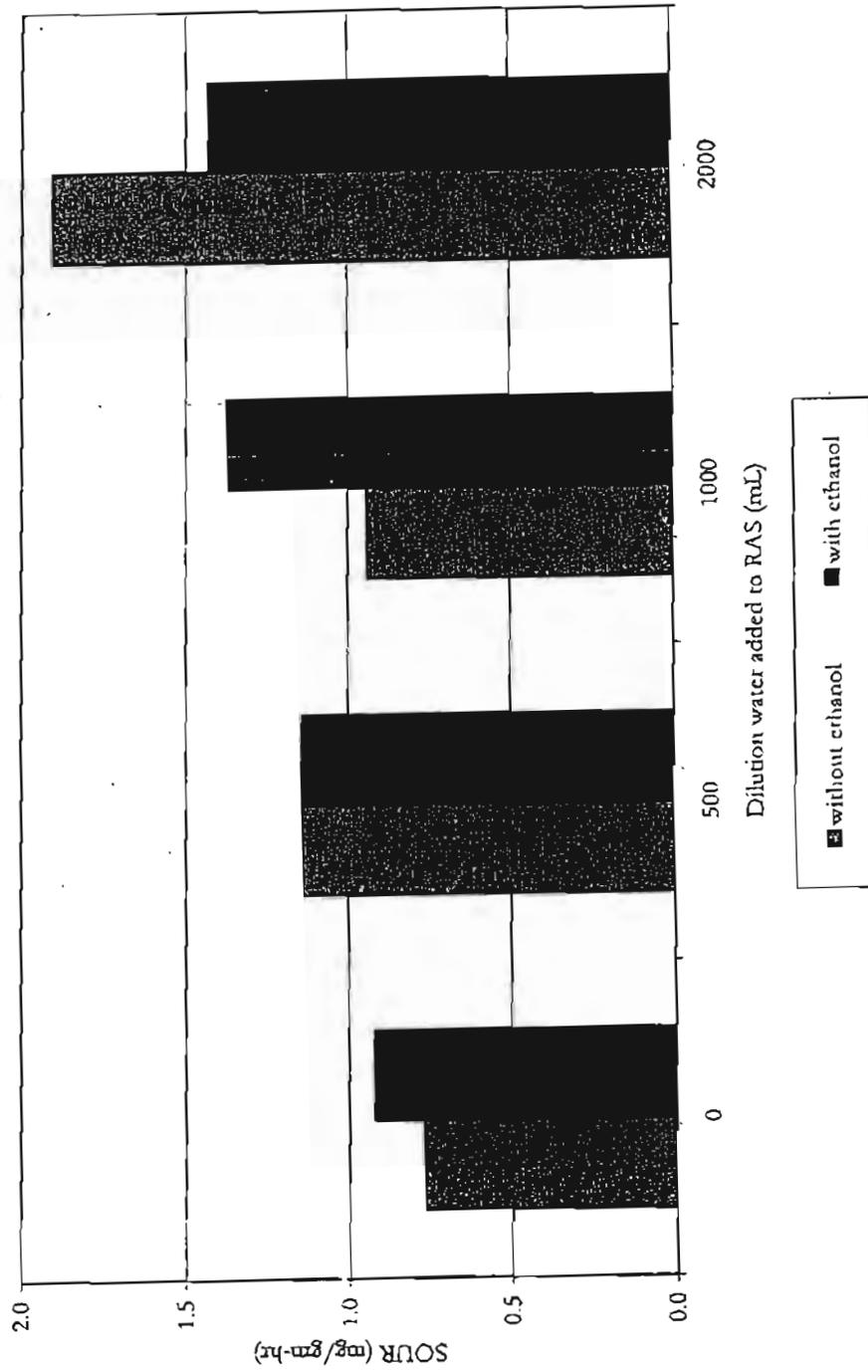


Figure 4. Emerald RAS Dilution Testing



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April 4, 2008



Mr. Dave Giffin
Emerald Performance Materials, LLC
Health, Safety and Environmental Manager
1550 County Road 1450 North
Henry, Illinois 61537

134420

Subject: Treatability Results of Fed Batch Reactor Testing

Dear Mr. Giffin:

Summarized below are the background, methods and materials, results and recommendations generated from the fed batch reactor (FBR) testing of the Emerald Performance Materials-Henry Plant wastewaters. The testing was performed by Brown and Caldwell (BC) using the return activated sludge, PVC wastewater, PC wastewater, and NASH wash water from the Henry Plant.

BACKGROUND

The Henry Plant has experienced bio-inhibition in its wastewater treatment facility while treating an approximate 0.15 percent flow contribution of NASH wash water (1000 gpd into a combined flow of 460 gpm). It was uncertain if the bio-inhibition observed was due to the NASH wash water contribution or other factors. Further testing, contained herein, was needed to determine what contribution of NASH wash water could be treated before acute bio-inhibition was observed at the onsite Wastewater Treatment Facility (WWTF).

METHODS AND MATERIALS

Wastewaters

On March 11, 2008, samples of return activated sludge (RAS) from the Henry Plant along with samples from the PVC tank, PC tank, NASH column, and 9602 polymer were received at BC's treatability laboratory in Nashville, Tennessee. Characterization was performed on the samples in order to prepare the FBR test plan. The RAS had MLSS and MLVSS concentrations of 5,175 mg/L and 4,290 mg/L, respectively. The pH of the PVC was 8.24 s.u. and the pH of the PC was 8.47 s.u. Soluble COD concentrations were measured after samples were filtered through a 0.45 μ m filter and preserved with sulfuric acid. The PVC, PC, and NASH COD concentrations were 640 mg/L, 7,400 mg/L, and 2,350 mg/L, respectively.

FBR Testing

The FBR tests were performed in two 4-L Pyrex reactors that were aerated and mixed by laboratory mixers. Both of the reactors initially contained 1000 mL of concentrated RAS, with a VSS concentration of about 18,000 mg/L. The reactors were then fed with

separate 10 L feeds using peristaltic pumps at a target PC-F/M of approximately 0.25 mg PC COD/mg MLVSS/day and a peak PC flow contribution of 16 percent. The actual PC-F/M experienced in the test reached 0.35 mg PC COD/mg MLVSS/day due to a lower than projected initial biomass concentration. This higher PC F/M may have rendered the biomass more susceptible to bio-inhibition. The feed influent mixtures consisted of 18% PC material and 82% PVC material; one of the two feeds was spiked with 40 mL of NASH material, yielding both a "control" test and a "NASH" test. Pretreatment of the feeds was performed similar to the previous FBR test feeds: addition of 9602 polymer, rapid mixing, flocculation, and settling as practiced in the full-scale WWTF. Aeration provided dissolved oxygen concentrations in the reactors of greater than 7.0 mg/L. The pH in the reactors remained between 7.0 and 8.5 s.u. The tests were designed to run over a 29-hour period with samples taken after 0.5, 1, 1.5, 2, 3, 4.5, 7, 12, 24, and 29 hours of reaction time. At about $t=8$ hours, the 4-L reactor beakers were replaced with 10-L reactors due to volume increase. Samples were analyzed for soluble COD and SOUR. Soluble is defined as the COD remaining in the filtrate after 0.45 μm filtration. Periodic (time = 0, 4.5, 12, and 24 hours) mixed liquor suspended solids concentrations were also measured.

RESULTS AND RECOMMENDATIONS

FBR Testing

The results of the FBR testing are presented graphically in Figures 1 and 2.

Two fed batch reactors were employed for this test: a reactor with a blend of PC and PVC material (Control) and a reactor with the same blend of PVC and PC material and an additional NASH spike (NASH). Specific oxygen uptake rates were determined at each sampling time, which gives a measurement of how active the bacteria are throughout the duration of the test. Initially the SOUR values for both the Control test and the NASH test were very similar; however, at a NASH fraction between 0.10 and 0.20 percent by volume, the NASH reactor showed a consistent 1 mg O₂/gram MLVSS/hour reduction in the SOUR values as compared to the Control reactor. Above 0.20 percent by volume, the NASH reactor showed a consistent 1.9 mg O₂/gram MLVSS/hour reduction in the SOUR values compared to the Control reactor.

Soluble Chemical Oxygen Demand (SCOD) measurements of the influent feeds for both the Control and NASH reactors were measured prior to testing to determine the total amount of SCOD that was being added to the reactors. SCOD in the reactor was measured throughout the duration of the test as a means of observing bacteria performance. The SCOD removal rate in the control reactor showed a continual increase throughout the duration of the test. The removal rate in the Control reactor gradually increased from 0 to 20 mg COD removed per gram MLVSS per hour. This steady increase in SCOD removal rate for the Control reactor was consistent with the SOUR increase observed in the same reactor. The SCOD removal rate in the NASH reactor was slow to begin and indicated a consistently inhibited rate of SCOD removal above 0.1 percent by volume of NASH wash water despite an ending rate of 12 mg

Mr. Dave Giffin
Emerald Performance Materials, LLC
April 4, 2008
Page 3

COD removed per gram MLVSS per hour at 0.28 percent by volume. Figure 2 illustrates the SCOD removal rates throughout both tests.

The NASH wash water exhibited bio-inhibition at influent flow rate contributions as low as 0.10 percent by volume. This inhibition became more apparent above 0.20 percent by volume. Consequently, Brown and Caldwell recommends that the NASH wash water fraction in the combined influent wastewater be maintained at less than 0.20 percent by volume at all times. At 1000 gallons per day of NASH wash water generation, the Henry Plant should maintain a minimum combined wastewater feed rate of 500,000 gallons per day to minimize the bio-inhibitory impact of the NASH wash water.

This recommendation addresses significant acute bio-inhibition. The results appear to complement full-scale performance observations.

We appreciated this opportunity to assist Emerald Materials. Please call me to discuss this report after you have had a chance to review it.

Very truly yours,

BROWN AND CALDWELL



T. Houston Flippin, P.E., BCEE

DK:tnb

cc: Jason Mullen, Brown and Caldwell

Limitations:

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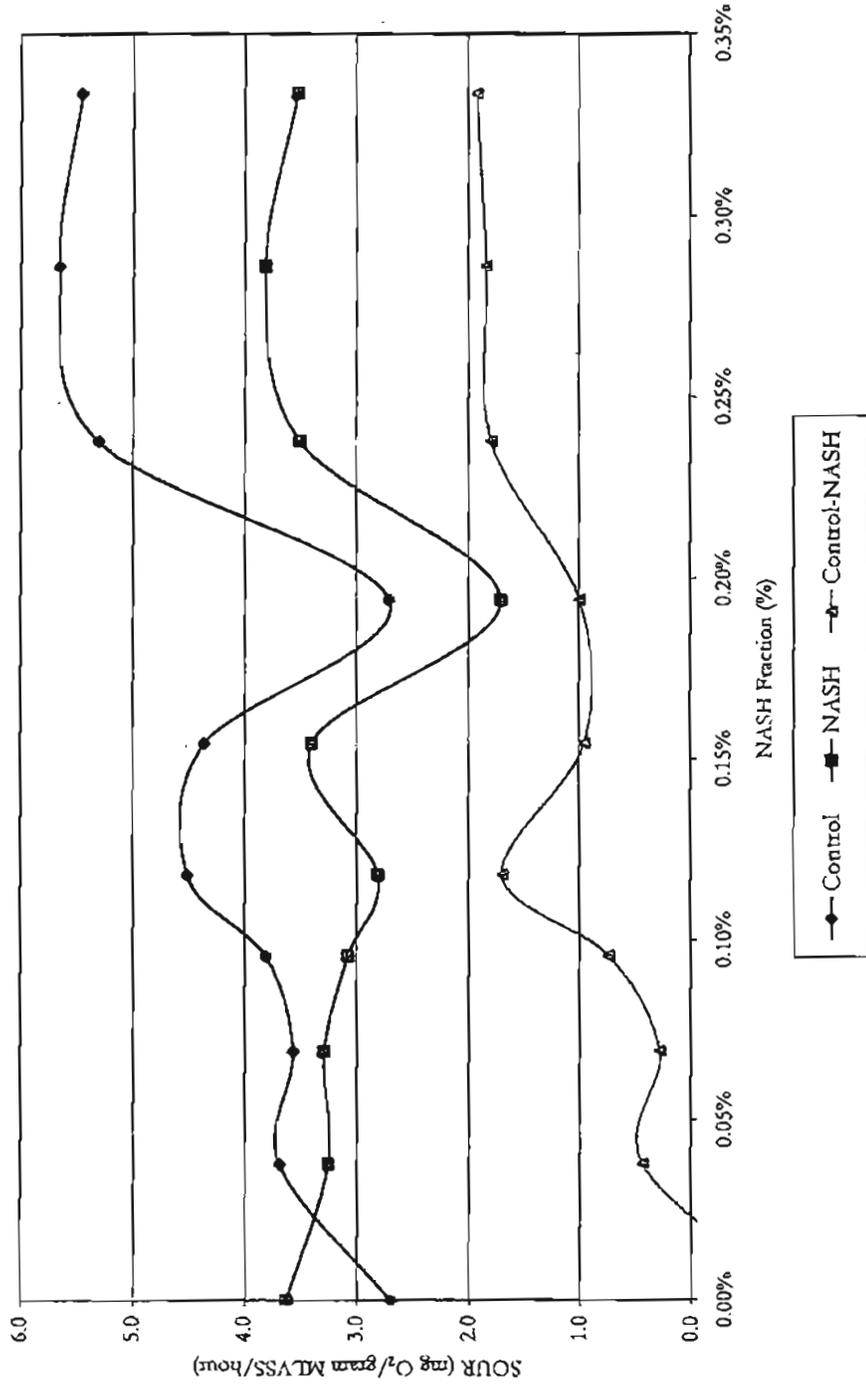


Figure 1. Impact of NASH Wash Water Addition on SOUR

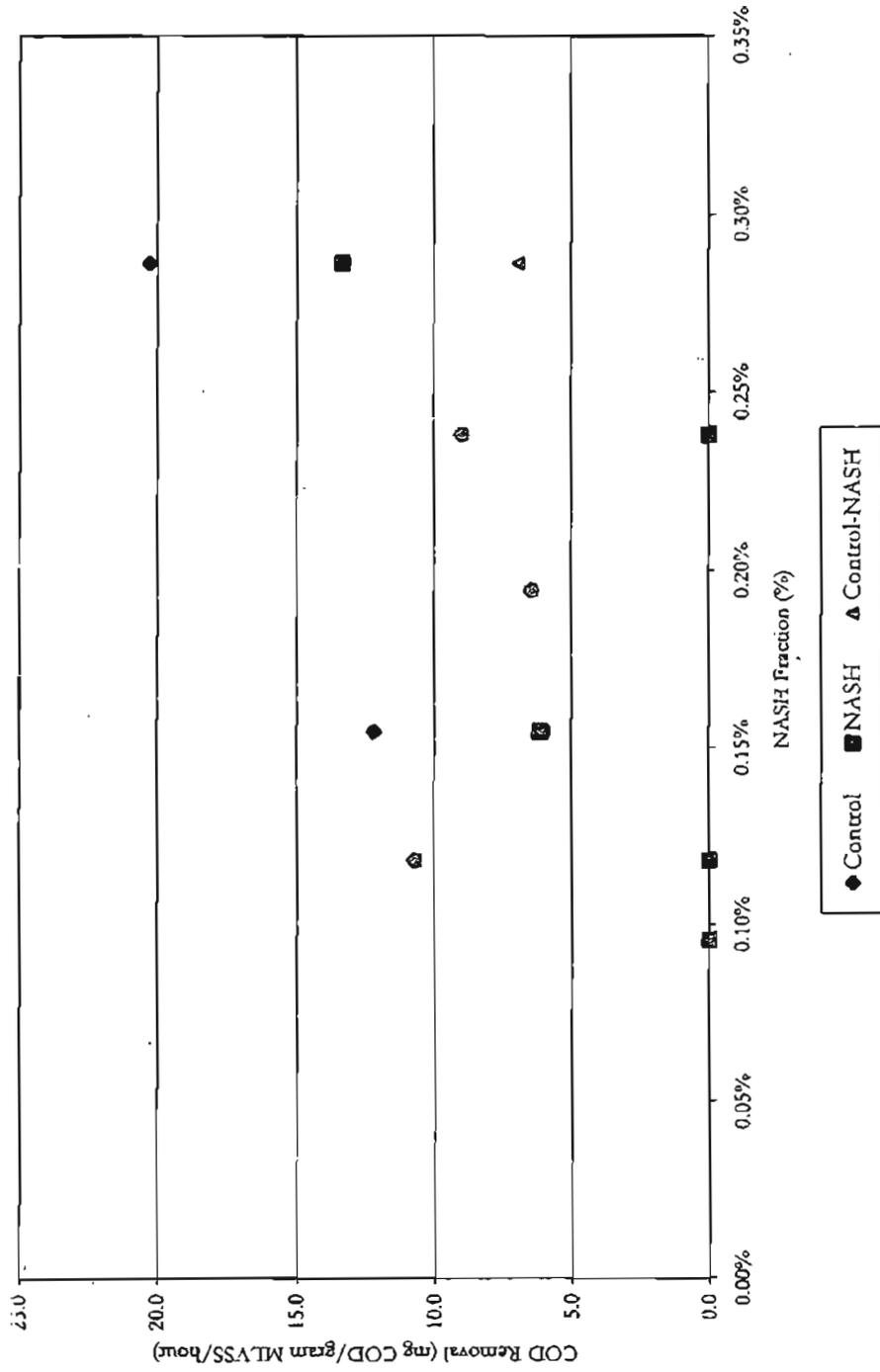


Figure 2. Impact of NASH Wash Water on SCOD Removal

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January 17, 2008



Mr. Dave Giffin
Emerald Performance Materials, LLC
Health, Safety and Environmental Manager
1550 County Road 1450 North
Henry, Illinois 61537

134420

Subject: Treatability Results of Fed Batch Reactor Testing

Dear Dave:

Summarized below are the background, methods and materials, and results and recommendations generated from the fed batch reactor (FBR) testing of the Emerald Performance Materials-Henry Plant wastewaters. The testing was performed by Brown and Caldwell (BC) using the return activated sludge, PVC wastewater, PC wastewater, and C-18 wastewater from the Henry Plant and waste activated sludge from the Nearby Equistar facility.

Background

The Henry Plant has historically experienced bio-inhibition in its wastewater treatment facility when it received significant loadings of PC and un-pretreated C-18 wastewater. This bio-inhibition has historically been controlled by carefully controlling the loading of PC wastewater and by pretreating C-18 wastewater with alkaline peroxidation.

In the last year, the PC wastewater has begun receiving ethanol washes from the NASH (sodium hyposulfite) column. It is uncertain how this wastewater has affected allowable PC wastewater loading rates on the wastewater treatment facility. In late Spring of 2007, pretreatment of C-18 wastewater with hydrogen peroxide was ceased. The un-pretreated began to displace pretreated C-18 wastewater housed in a tank with an average hydraulic retention time (HRT) of 100 days. In November 2007, the Henry Plant went through a turnaround. During this period and for weeks afterwards, the Chemical Oxygen Demand (COD) concentration in the PC tank exceeded 9000 mg/L versus the normal 7,000 mg/L. Within two weeks of this spike in PC tank COD concentration, the effluent from the wastewater treatment plant had increased from 700 mg/L to greater than 900 mg/L and the effluent BOD consistently discharged an effluent BOD in excess of the monthly average limit of 20 mg/L.

It is uncertain which factors most significantly contributed to the elevated effluent BOD concentrations. Brown and Caldwell recommended acute (short-term) testing to attempt to identify the causes of these elevated effluent BOD concentrations.

Methods and Materials

Wastewaters

On December 18, 2007, samples of return activated sludge (RAS) from the Henry Plant along with samples from the PVC tank, PC tank, C-18 tank, 8100 polymer, and 9602 polymer were received at BC's treatability laboratory in Nashville, Tennessee. The samples were characterized as received. Table 1 summarizes the characterization data.

	pH s.u.	MLSS mg/L	VSS mg/L	TDS mg/L	TDFS mg/L
RAS	8.39	2,840	2,620	10,720	10,240
PVC	8.35	8,060	4,800	5,940	5,580
PC	8.87	990	700	46,280	43,860
C-18	9.17	98	64	52,080	48,920

Note: PC had a total and soluble (0.45 μ m filtered) COD of 11,000 mg/L and 9,000 mg/L, respectively.

FBR Testing

FBR testing is a valuable tool to measure the impact that a wastewater may have on an existing treatment plant. The FBR test is designed to measure the effect of a continuously increasing load on a biomass culture by monitoring specific oxygen uptake rate (SOUR) and substrate (e.g., COD) biodegradation with time. The SOUR is a direct measure of biomass activity and therefore can be the more sensitive measure when seeking to identify inhibition. During an FBR test, inhibition is characterized by an irreversible decrease in SOUR. This change in SOUR is typically accompanied by a decrease in substrate biodegradation. Substrate biodegradation is quantified by measuring the concentration of soluble chemical oxygen demand (COD) surrounding the biomass throughout the tests.

The FBR tests were performed in three 2-L Pyrex reactors that were aerated and mixed by laboratory mixers. Each of the three reactors initially contained 500 mL of twice-concentrated RAS, which was initially rinsed in TDS adjusted tap water at a 5:1 dilution ratio. The three reactors were then fed with three separate feeds using peristaltic pumps at the peak F/M experienced during the upset (0.7 mg COD/mg MLVSS/day): a control test with standard amounts of PC and no C-18 (without C-18), a test with C-18 added (with C-18), and a test with no C-18, but an excessive amount of PC material (Heavy PC). Aeration provided dissolved oxygen concentrations in the reactors of greater than 7.0 mg/L. The pH in the reactors was maintained between 7.0 and 8.5 s.u. through the addition of sulfuric acid as necessary. The tests were designed to run over a 32-hour period with samples taken after 0.5, 1, 2, 3, 4, 5, 6, 8, 9, 11, 12, 19, 20, 31, and 32 hours of reaction time. Samples were analyzed for soluble COD and SOUR.

Soluble is defined as the COD remaining in the filtrate after 0.45 μm filtration. Initial and final mixed liquor suspended solids concentrations were also measured.

RAS Dilution Testing

Dilution testing was performed in Pyrex beakers. A 500-mL aliquot of RAS was added to each of four beakers and aerated. Beaker 1 received no dilution, while Beaker 2 received an additional 500 mL of TDS adjusted tap water, Beaker 3 received 1000 mL of TDS adjusted tap water and Beaker 4 received 2000 mL of TDS adjusted tap water. This yielded total volumes of 0.5, 1, 1.5, and 2.5 L, respectively. These mixtures were aerated 30 minutes, and then oxygen uptake rates were measured. Each beaker then received 1 mL of pure grain ethanol, aerated for an additional 30 minutes, and oxygen uptake rates were again measured.

Equistar Testing

The Equistar testing was performed in two 1-L Pyrex beakers. One beaker contained 500 mL of RAS, while the other contained 500 mL of Equistar MLSS. Each was aerated for 30 minutes, then oxygen uptake rates were measured. The Equistar bugs were then centrifuged for 5 minutes and the supernatant was decanted. The remaining "plug" of Equistar bugs was added to the 500 mL of Emerald RAS, thoroughly mixed, aerated for an additional 30 minutes and another OUR was measured. Next, the mixture of two biomasses was spiked with 1 mL of ethanol, aerated for 30 minutes and the OUR was measured. This mixture was then aerated for another 19 hours, yielding a total aerating time of approximately 20 hours. At the 20th hour, the mixture was again spiked with 1 mL of ethanol and aerated for 30 minutes, and a final OUR was measured.

Results and Recommendations

FBR Testing

The results of the FBR testing are presented graphically in Figures 1 through 3.

As stated earlier, three fed batch reactors were employed for this treatability test: a control test with standard amounts of PC and no C-18 (without C-18), a test with C-18 added (with C-18), and a test with no C-18, but an excessive amount of PC material (Heavy PC). The highest recorded SOUR value among all three reactors was 0.84 mg $\text{O}_2/\text{gm VSS-hr}$, indicating the biomass used in all three FBR tests was inhibited even at initial low wastewater loadings. This indicates that the initial sludge washing was unable to eliminate the bio-inhibition. Consequently, the addition of "clean" wastewater at the Henry Plant will not eliminate the bio-inhibition but should reduce it as tests described below indicate.

The "without C-18" FBR showed a relatively constant oxygen uptake rate; however, COD removal showed signs of inhibition. Initially, COD removal rate seemed healthy and showed consistent increase during the first stages of the test. However, after a PC fraction of approximately 16 percent was reached, the COD removal rate began to

drop, suggesting that a PC fraction of 16 percent or greater begins to create an acute (immediate) inhibitory environment (Figure 1).

The FBR with C-18 showed no signs of acute inhibition at influent flowrate concentrations up to 0.95 percent influent flowrate contribution. SOUR values remained fairly consistent throughout the duration of the test, while COD removal rates were higher during the latter stages of the test (Figure 2). It is uncertain if this stream exerts a chronic (long-term) impact on bio-inhibition.

The "Heavy PC" FBR showed the most obvious signs of acute inhibition. At a PC fraction of about 17 percent, both SOUR values and COD removal rates began to gradually decline (Figure 3).

The un-pretreated C-18 wastewater did not indicate signs of acute inhibition in these tests up to a flow contribution of 0.95 percent. PC fractions of 16 percent or greater appear to cause acute inhibition when the PC filtered COD is 9000 mg/L. It is recommended that the PC tank flow contribution be kept less than 15 percent of the biotreater feed (not counting RAS flow) and less than 1350 mg/L COD contribution in the biotreater feed (not counting RAS flow).

This recommendation will address acute bio-inhibition. If only acute affects are present, this recommendation should restore the system to typical performance. If chronic bio-inhibition is also present, then this recommendation will not provide complete restoration of system performance. Longer term testing (1 to 3 sludge age duration or 50 to 150 days) would be required to identify the impact of PC and C-18 wastewaters on chronic bio-inhibition

RAS Dilution Testing

Figure 4 presents the results from the RAS dilution testing.

Results from the RAS dilution test indicated that increasing "clean" wastewater addition will improve biomass performance. Higher dilutions resulted in higher SOUR values with and without ethanol spiking. Increasing "clean" wastewater addition to the treatment system is recommended to minimize inhibition. It should be noted that the highest SOUR achieved was less than 2 mg O₂/gm VSS-hr, indicating the biomass remained inhibited even following significant dilution. This indicates that the addition of "clean" wastewater at the Henry Plant will not eliminate the bio-inhibition but should reduce it.

Equistar Testing

Table 2 presents the results from the Equistar activated sludge testing.

The Equistar test indicated that adding Equistar biomass to the Emerald RAS may inhibit the Equistar bugs, but the Equistar biomass will survive and increase overall activated sludge performance. During the testing, the OUR of the Equistar bacteria alone was 60 mg/L-hr, but dropped to 32 mg/L-hr after being thoroughly mixed into the Emerald RAS and aerated for 30 minutes. After this mixture was spiked with ethanol, the OUR increased to 105 mg/L-hr. After the mixture was aerated overnight

Mr. Dave Giffin
Emerald Performance Materials, LLC
January 4, 2008
Page 5

and again spiked with ethanol, the OUR was only 30 mg/L-hr (29 percent of its initial rate).

The Equistar biomass will significantly be inhibited when added to the Henry Plant biomass. However, it will survive after and offer about 29 percent of its initial treatment capability. In spite of the decline in performance, however, it is recommended that the Equistar biomass continue to be seeded into the system until BOD compliance is consistently regained.

Equistar Testing	Emerald RAS	Equistar	Equistar + RAS T = 30 min	Equistar + RAS T = 1 hr	Equistar + RAS T = 20 hr*
SOUR (mg/gm.hr)	0.69	1.42	1.00	3.27	0.94

* Ethanol added 30 min prior to SOUR measurement

We appreciated this opportunity to assist Emerald Materials. Please call me to discuss this report after you have had a chance to review it.

Very truly yours,

BROWN AND CALDWELL



Houston Flippin, P.E., DEE
Industrial Wastewater Process Leader

THF:tnb

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Figure 1. Without C-18 (3 pt moving avg)

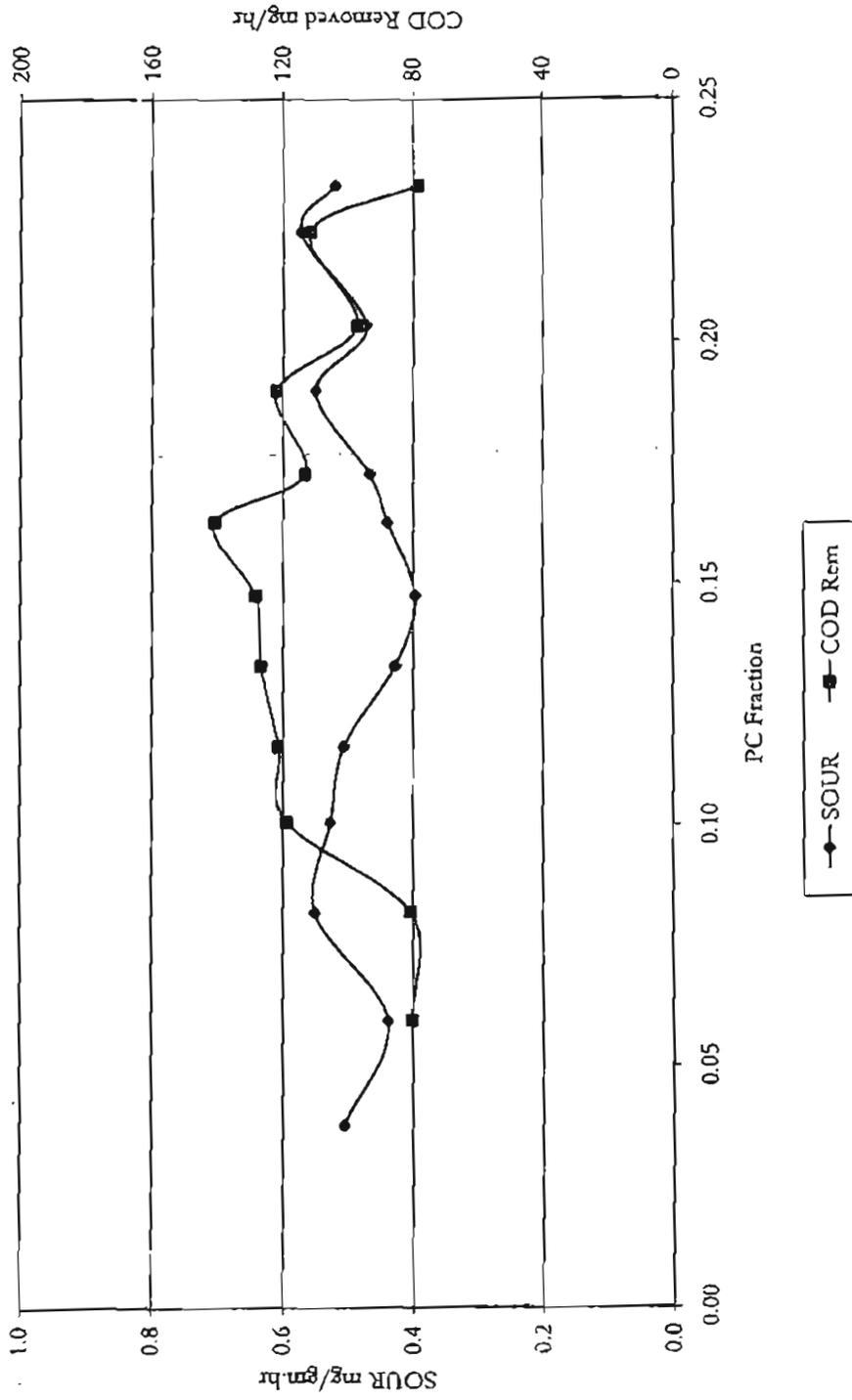


Figure 2. With C-18 (3 pt moving avg)

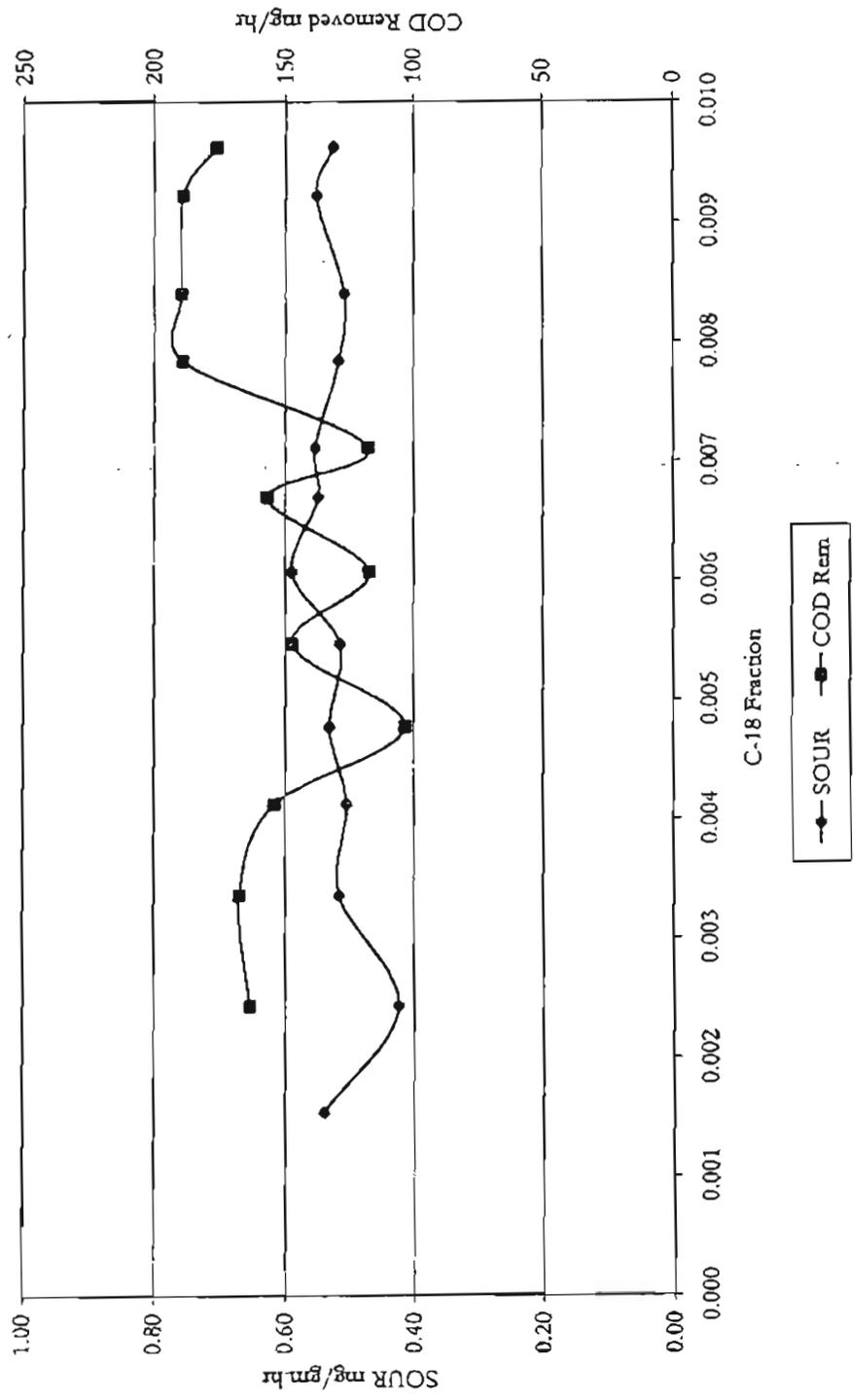


Figure 3. Heavy PC (3 pt moving avg)

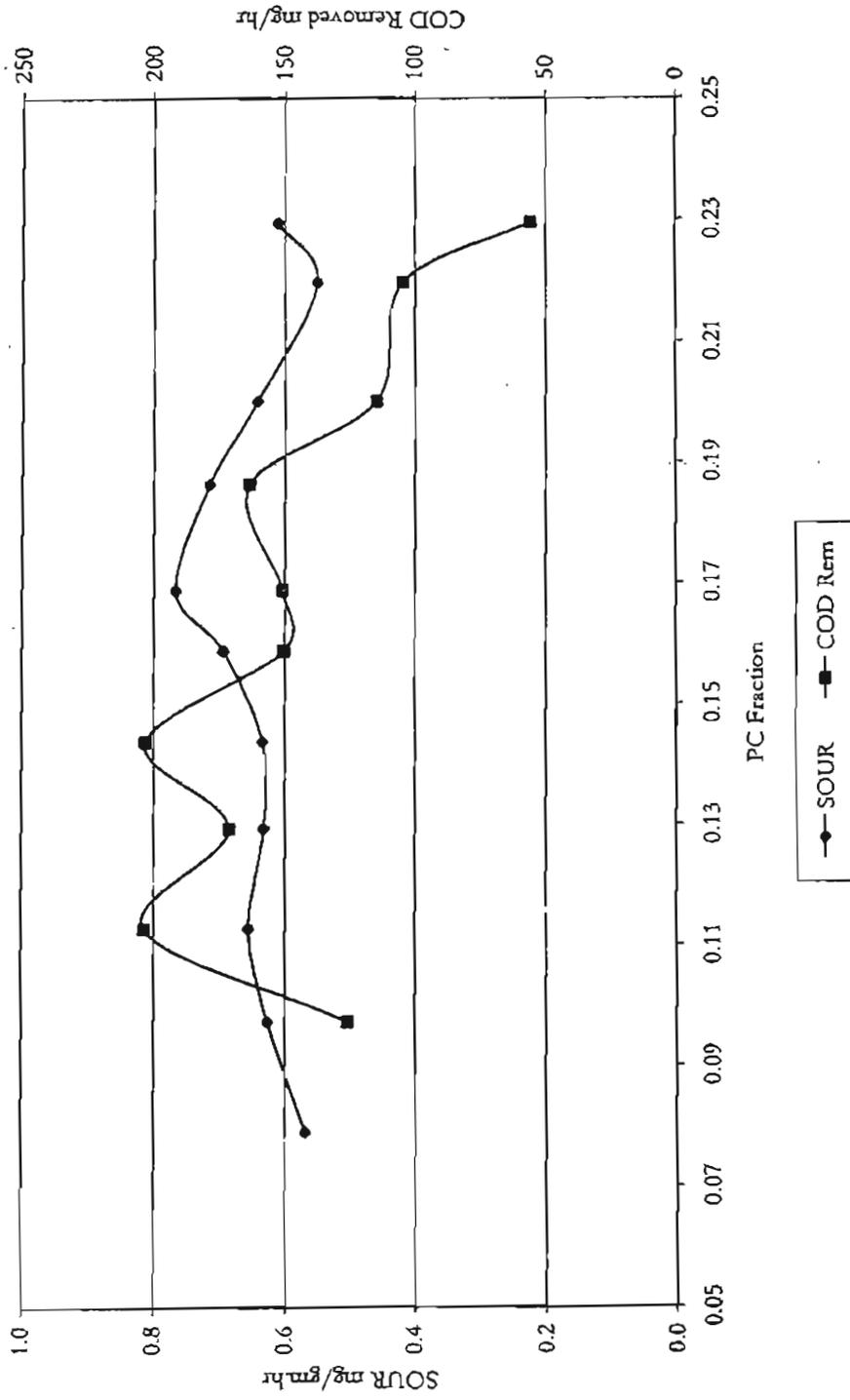
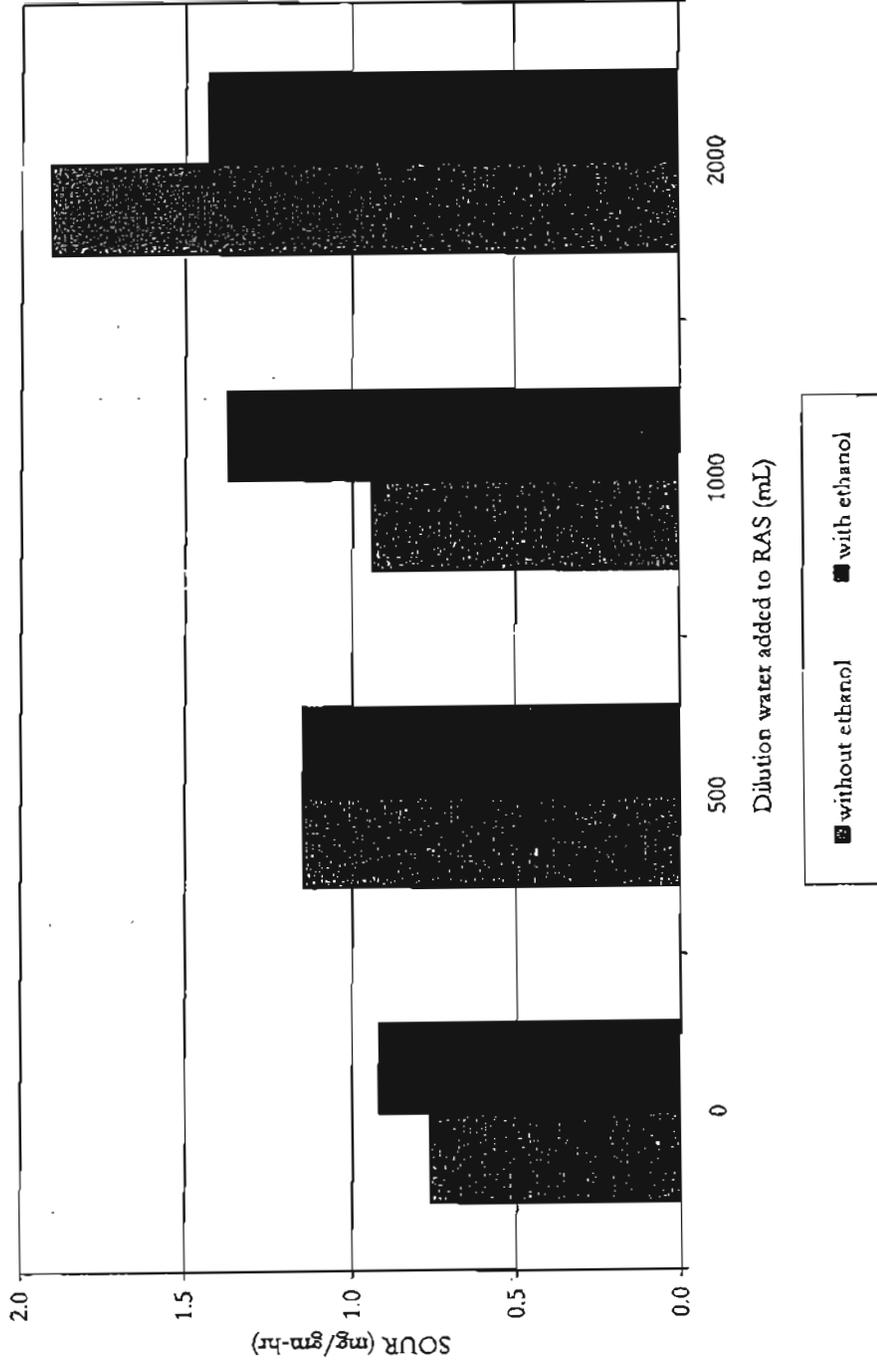


Figure 4. Emerald RAS Dilution Testing



Emerald Performance Materials

Meeting Request - must be held on or before May 2, 2008

Orig: Records Unit
cc: Beverly Booker
Cathy Siders
Roger Callaway
Bruce Yurdin
Peoria Region, WPC

RECEIVED

APR 03 2008

IEPA/CAS

DATE: 4/2/08

Agency mtg ltr/reply due 05/02/2008

NPDES Permit 0001392

EXPRESS MAIL: EE771047380US
Mr. Jim Kamueller
Illinois Environmental Protection Agency
Regional Office
5415 N. University
Peoria, IL 61614

EXPRESS MAIL: EE771047376US
Illinois Environmental Protection Agency
Bureau of Water, CAS #19
NPDES - Compliance Section
1021 North Grand Avenue East,
P.O.Box 19276
Springfield, IL 62794-9276
Attn: Beverly Booker

Subject: Re: Violation Notice: W-2008-00092

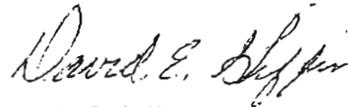
Dear Sirs:

The Emerald Performance Materials plant at Henry, Illinois, having received the Subject Violation Notice: W-2008-00092 would like to request a meeting between Illinois EPA and the Henry Plant representatives within the 45 day period provided by the agency's letter. It is believed that the meeting would serve best to explain the deviations which occurred in the December/January time period. The plant's waste treatment facility is currently operating within its NPDES permit limit and does not expect to have a similar type upset in the future.

Attached to this letter is a summary of events and actions taken by the Emerald plant to mitigate the effect of the upset and to control the waste treatment system during this time period.

We trust this information is adequate. In the event you have questions, please contact us at (309) 364-9411 or by fax at (309) 364-9460 or by e-mail at Dave.Giffin@Emeraldmaterials.com.

Sincerely,



David E. Giffin
H/S/E Manager

cc: Jeff J. Brenner/Brian Denison/File
Attachment

Emerald Polymer Additives, LLC

1550 County Road 1450 N./ Henry, IL 61537 / Phone: 309-364-2311 / Fax: 309-364-9460
www.emeraldmaterials.com

APR 03 2008

Waste Treatment Upset Summary

IEPA/CAS

A. Overview of Waste Treatment Operations (November 2007/January – 2008): The waste treatment system experienced several upsets during November, December and January. Although each upset in itself did not lead to a total upset of the biomass system, a more weakened system resulted. Finally, the system reached a point where it no longer could adequately treat the waste and maintain an appropriate biomass population. During November, there were 3 BOD₅ and 1 Suspended Solids exceedances. During December, there were 7 BOD₅ and 8 Suspended Solids exceedances. In January, there were 15 BOD₅ and 14 Suspended Solids exceedances. In February, there was only 1 Suspended Solids exceedance as a result of loss of carrier water for the polymers to the 2nd Clarifier.

B. Upsets Identified in November/December:

1. F/M (Food/Mass) ratios for individual bioreactors were out of balance even though the entire bioreactor system averaged ~0.3 F/M target.
2. Less clean water was being added to the PC waste stream in an effort to reduce raw material costs.
3. Approximately 1000 gallons of NaSH waste water was discharged to the PC Tank (45% level) on 11/11/2007. This was a new process discharge and the effect of this material on the bioreactors had not been evaluated.
4. One of the two side entering agitators to the PC equalization tank was out of service until mid-November. When putting this agitator back into service (11/15), a high COD was experienced (10,435 mg/l). This activity was stopped.
5. The agitator was finally put back into service over a period of several days (11/26/07). There were no abnormal increases in COD of the PC equalization tank. However, the biomass activity began decreasing shortly after this event and the 2nd clarifier showed significant carryover.
6. South Aqua-filter had to be shutdown for unexpected maintenance on 12/8/07.
7. Sudden shifts in PC tank COD loading occurred:
 - 11/14 to 11/5 – 66% increase
 - 11/30 to 12/1 – 27% increase
 - 12/7 to 12/8 - 39% increase
 - 12/9 to 12/10 – 17% increase
8. Christmas shutdown inherently reduced the presence of ferric chloride as a coagulant aid to the primary system when Poly One shutdown their pre-treatment system.
9. Cold weather reduced the biomass activity during this period of time as well.

C. Actions taken to mitigate the Upsets:

1. The PC feed rate was reduced from 90 gpm to 65 gpm and the C-18 feed rate was reduced from 3 gpm to 1 gpm on 11/27/07 when the biomass activity decreased along with significant solids carryover in the 2nd Clarifier.
2. Due to the inability of the two Aqua-filters to handle the solids carryover, the south Aqua-filter was taken out of service (11/30-Friday) and new sand was placed in it. The second Aqua-filter sand was also changed out (12/3-Monday). Unfortunately, during the weekend of 12/8, the south Aqua-filter had to be shutdown for additional maintenance. Significant amounts of biomass were lost from the 2nd Clarifier and continued to be lost from the 2nd Clarifier through the second week of January.

3. F/M ratios for each bioreactor were readjusted so that each bioreactor individually met the same target value, instead of having all 4 bioreactors collectively meet the target value (12/10/07). A new formula for pro-rating the distribution of flows was established within the Distributed Control System (DCS).
4. Brown and Caldwell conducted Fed Batch Reactor (FBR) testing on 12/18/07 to determine the level of bio-inhibition that was due to the different waste streams being fed to the bioreactors. (See Report dated 1/17/08 attached). Based on the Brown Caldwell FBR testing, the following guidelines were established to help rebuild the biomass activity:
 - a. Control PC tank loading to less than 0.25 F/M.
 - b. Control PC Tank contribution below 18%.
 - c. Increase non-PC tank water as much as the 2nd clarifier will accept.
 - d. Control PC tank loading changes to less than 10%.
5. Due to loss of biomass from the 2nd Clarifier, two 20 yd³ boxes of Equistar Sludge were delivered from the Equistar plant in Morris, Illinois on 12/19/07 and 1/3/08 to help replenish the biomass. Although this provided more biomass, the new sludge required additional time for acclimating and polymer additions had to be re-optimized.
6. On 1/9/08, ferric chloride addition was started to the 2nd clarifier at the mix tank. Once this was started with optimized polymer feeds to the 2nd clarifier, the loss of biomass from the 2nd clarifier stopped and the system began to rebuild its biomass.
7. During December and January, production rates were significantly curtailed to provide the appropriate conditions for rebuilding biomass activity.

D. Actions Still in Progress :

1. Brown and Caldwell are conducting FBR testing of the NaSH waste discharge that was identified as a potential upset. Although the plant has discharged this waste to the bio-system since this time period without incident, the FBR will quantify any bio-inhibitions that may be present.
2. System is continually being evaluated with the assistance of Brown and Caldwell to insure long-term compliance.

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APR 03 2008
IEPA/CAS

January 17, 2008



Mt. Dave Giffin
Emerald Performance Materials, LLC
Health, Safety and Environmental Manager
1550 County Road 1450 North
Henry, Illinois 61537

134420

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Summarized below are the background, methods and materials, and results and recommendations generated from the fed batch reactor (FBR) testing of the Emerald Performance Materials-Henry Plant wastewaters. The testing was performed by Brown and Caldwell (BC) using the return activated sludge, PVC wastewater, PC wastewater, and C-18 wastewater from the Henry Plant and waste activated sludge from the Nearby Equistar facility.

Background

The Henry Plant has historically experienced bio-inhibition in its wastewater treatment facility when it received significant loadings of PC and un-pretreated C-18 wastewater. This bio-inhibition has historically been controlled by carefully controlling the loading of PC wastewater and by pretreating C-18 wastewater with alkaline peroxidation.

In the last year, the PC wastewater has begun receiving ethanol washes from the NASH (sodium hyposulfite) column. It is uncertain how this wastewater has affected allowable PC wastewater loading rates on the wastewater treatment facility. In late Spring of 2007, pretreatment of C-18 wastewater with hydrogen peroxide was ceased. The un-pretreated began to displace pretreated C-18 wastewater housed in a tank with an average hydraulic retention time (HRT) of 100 days. In November 2007, the Henry Plant went through a turnaround. During this period and for weeks afterwards, the Chemical Oxygen Demand (COD) concentration in the PC tank exceeded 9000 mg/L versus the normal 7,000 mg/L. Within two weeks of this spike in PC tank COD concentration, the effluent from the wastewater treatment plant had increased from 700 mg/L to greater than 900 mg/L and the effluent BOD consistently discharged an effluent BOD in excess of the monthly average limit of 20 mg/L.

It is uncertain which factors most significantly contributed to the elevated effluent BOD concentrations. Brown and Caldwell recommended acute (short-term) testing to attempt to identify the causes of these elevated effluent BOD concentrations.

Methods and Materials

Wastewaters

On December 18, 2007, samples of return activated sludge (RAS) from the Henry Plant along with samples from the PVC tank, PC tank, C-18 tank, 8100 polymer, and 9602 polymer were received at BC's treatability laboratory in Nashville, Tennessee. The samples were characterized as received. Table 1 summarizes the characterization data.

	pH s.u.	MLSS mg/L	VSS mg/L	TDS mg/L	TDFS mg/L
RAS	8.39	2,840	2,620	10,720	10,240
PVC	8.35	8,060	4,800	5,940	5,580
PC	8.87	990	700	46,280	43,860
C-18	9.17	98	64	52,080	48,920

Note: PC had a total and soluble (0.45 μ m filtered) COD of 11,000 mg/L and 9,000 mg/L, respectively.

FBR Testing

FBR testing is a valuable tool to measure the impact that a wastewater may have on an existing treatment plant. The FBR test is designed to measure the effect of a continuously increasing load on a biomass culture by monitoring specific oxygen uptake rate (SOUR) and substrate (e.g., COD) biodegradation with time. The SOUR is a direct measure of biomass activity and therefore can be the more sensitive measure when seeking to identify inhibition. During an FBR test, inhibition is characterized by an irreversible decrease in SOUR. This change in SOUR is typically accompanied by a decrease in substrate biodegradation. Substrate biodegradation is quantified by measuring the concentration of soluble chemical oxygen demand (COD) surrounding the biomass throughout the tests.

The FBR tests were performed in three 2-L Pyrex reactors that were aerated and mixed by laboratory mixers. Each of the three reactors initially contained 500 mL of twice-concentrated RAS, which was initially rinsed in TDS adjusted tap water at a 5:1 dilution ratio. The three reactors were then fed with three separate feeds using peristaltic pumps at the peak F/M experienced during the upset (0.7 mg COD/mg MLVSS/day): a control test with standard amounts of PC and no C-18 (without C-18), a test with C-18 added (with C-18), and a test with no C-18, but an excessive amount of PC material (Heavy PC). Aeration provided dissolved oxygen concentrations in the reactors of greater than 7.0 mg/L. The pH in the reactors was maintained between 7.0 and 8.5 s.u. through the addition of sulfuric acid as necessary. The tests were designed to run over a 32-hour period with samples taken after 0.5, 1, 2, 3, 4, 5, 6, 8, 9, 11, 12, 19, 20, 31, and 32 hours of reaction time. Samples were analyzed for soluble COD and SOUR.

Soluble is defined as the COD remaining in the filtrate after 0.45 μm filtration. Initial and final mixed liquor suspended solids concentrations were also measured.

RAS Dilution Testing

Dilution testing was performed in Pyrex beakers. A 500-mL aliquot of RAS was added to each of four beakers and aerated. Beaker 1 received no dilution, while Beaker 2 received an additional 500 mL of TDS adjusted tap water, Beaker 3 received 1000 mL of TDS adjusted tap water and Beaker 4 received 2000 mL of TDS adjusted tap water. This yielded total volumes of 0.5, 1, 1.5, and 2.5 L, respectively. These mixtures were aerated 30 minutes, and then oxygen uptake rates were measured. Each beaker then received 1 mL of pure grain ethanol, aerated for an additional 30 minutes, and oxygen uptake rates were again measured.

Equistar Testing

The Equistar testing was performed in two 1-L Pyrex beakers. One beaker contained 500 mL of RAS, while the other contained 500 mL of Equistar MLSS. Each was aerated for 30 minutes, then oxygen uptake rates were measured. The Equistar bugs were then centrifuged for 5 minutes and the supernatant was decanted. The remaining "plug" of Equistar bugs was added to the 500 mL of Emerald RAS, thoroughly mixed, aerated for an additional 30 minutes and another OUR was measured. Next, the mixture of two biomasses was spiked with 1 mL of ethanol, aerated for 30 minutes and the OUR was measured. This mixture was then aerated for another 19 hours, yielding a total aerating time of approximately 20 hours. At the 20th hour, the mixture was again spiked with 1 mL of ethanol and aerated for 30 minutes, and a final OUR was measured.

Results and Recommendations

FBR Testing

The results of the FBR testing are presented graphically in Figures 1 through 3.

As stated earlier, three fed batch reactors were employed for this treatability test: a control test with standard amounts of PC and no C-18 (without C-18), a test with C-18 added (with C-18), and a test with no C-18, but an excessive amount of PC material (Heavy PC). The highest recorded SOUR value among all three reactors was 0.84 mg $\text{O}_2/\text{gm VSS}\cdot\text{hr}$, indicating the biomass used in all three FBR tests was inhibited even at initial low wastewater loadings. This indicates that the initial sludge washing was unable to eliminate the bio-inhibition. Consequently, the addition of "clean" wastewater at the Henry Plant will not eliminate the bio-inhibition but should reduce it as tests described below indicate.

The "without C-18" FBR showed a relatively constant oxygen uptake rate; however, COD removal showed signs of inhibition. Initially, COD removal rate seemed healthy and showed consistent increase during the first stages of the test. However, after a PC fraction of approximately 16 percent was reached, the COD removal rate began to

drop, suggesting that a PC fraction of 16 percent or greater begins to create an acute (immediate) inhibitory environment (Figure 1).

The FBR with C-18 showed no signs of acute inhibition at influent flowrate concentrations up to 0.95 percent influent flowrate contribution. SOUR values remained fairly consistent throughout the duration of the test, while COD removal rates were higher during the latter stages of the test (Figure 2). It is uncertain if this stream exerts a chronic (long-term) impact on bio-inhibition.

The "Heavy PC" FBR showed the most obvious signs of acute inhibition. At a PC fraction of about 17 percent, both SOUR values and COD removal rates began to gradually decline (Figure 3).

The un-pretreated C-18 wastewater did not indicate signs of acute inhibition in these tests up to a flow contribution of 0.95 percent. PC fractions of 16 percent or greater appear to cause acute inhibition when the PC filtered COD is 9000 mg/L. It is recommended that the PC tank flow contribution be kept less than 15 percent of the biotreater feed (not counting RAS flow) and less than 1350 mg/L COD contribution in the biotreater feed (not counting RAS flow).

This recommendation will address acute bio-inhibition. If only acute affects are present, this recommendation should restore the system to typical performance. If chronic bio-inhibition is also present, then this recommendation will not provide complete restoration of system performance. Longer term testing (1 to 3 sludge age duration or 50 to 150 days) would be required to identify the impact of PC and C-18 wastewaters on chronic bio-inhibition.

RAS Dilution Testing

Figure 4 presents the results from the RAS dilution testing.

Results from the RAS dilution test indicated that increasing "clean" wastewater addition will improve biomass performance. Higher dilutions resulted in higher SOUR values with and without ethanol spiking. Increasing "clean" wastewater addition to the treatment system is recommended to minimize inhibition. It should be noted that the highest SOUR achieved was less than 2 mg O₂/gm VSS-hr, indicating the biomass remained inhibited even following significant dilution. This indicates that the addition of "clean" wastewater at the Henry Plant will not eliminate the bio-inhibition but should reduce it.

Equistar Testing

Table 2 presents the results from the Equistar activated sludge testing.

The Equistar test indicated that adding Equistar biomass to the Emerald RAS may inhibit the Equistar bugs, but the Equistar biomass will survive and increase overall activated sludge performance. During the testing, the OUR of the Equistar bacteria alone was 60 mg/L-hr, but dropped to 32 mg/L-hr after being thoroughly mixed into the Emerald RAS and aerated for 30 minutes. After this mixture was spiked with ethanol, the OUR increased to 105 mg/L-hr. After the mixture was aerated overnight

Mr. Dave Giffin
Emerald Performance Materials, LLC
January 4, 2008
Page 5

and again spiked with ethanol, the OUR was only 30 mg/L-hr (29 percent of its initial rate).

The Equistar biomass will significantly be inhibited when added to the Henry Plant biomass. However, it will survive after and offer about 29 percent of its initial treatment capability. In spite of the decline in performance, however, it is recommended that the Equistar biomass continue to be seeded into the system until BOD compliance is consistently regained.

Equistar Testing	Emerald RAS	Equistar	Equistar + RAS T = 30 min	Equistar + RAS T = 1 hr	Equistar + RAS T = 20 hr
SOUR (mg/gm.hr)	0.69	1.42	1.00	3.27	0.94

* Ethanol added 30 min prior to SOUR measurement

We appreciated this opportunity to assist Emerald Materials. Please call me to discuss this report after you have had a chance to review it.

Very truly yours,

BROWN AND CALDWELL



Houston Flippin, P.E., DEE
Industrial Wastewater Process Leader

THF:tnb

Limitations:

This document was prepared solely for Emerald Performance Materials, LLC in accordance with professional standards at the time the services were performed and in accordance with the contract between Emerald Performance Materials, LLC and Brown and Caldwell. This document is governed by the specific scope of work authorized by Emerald Performance Materials, LLC; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Emerald Performance Materials, LLC and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

Figure 1. Without C-18 (3 pt moving avg)

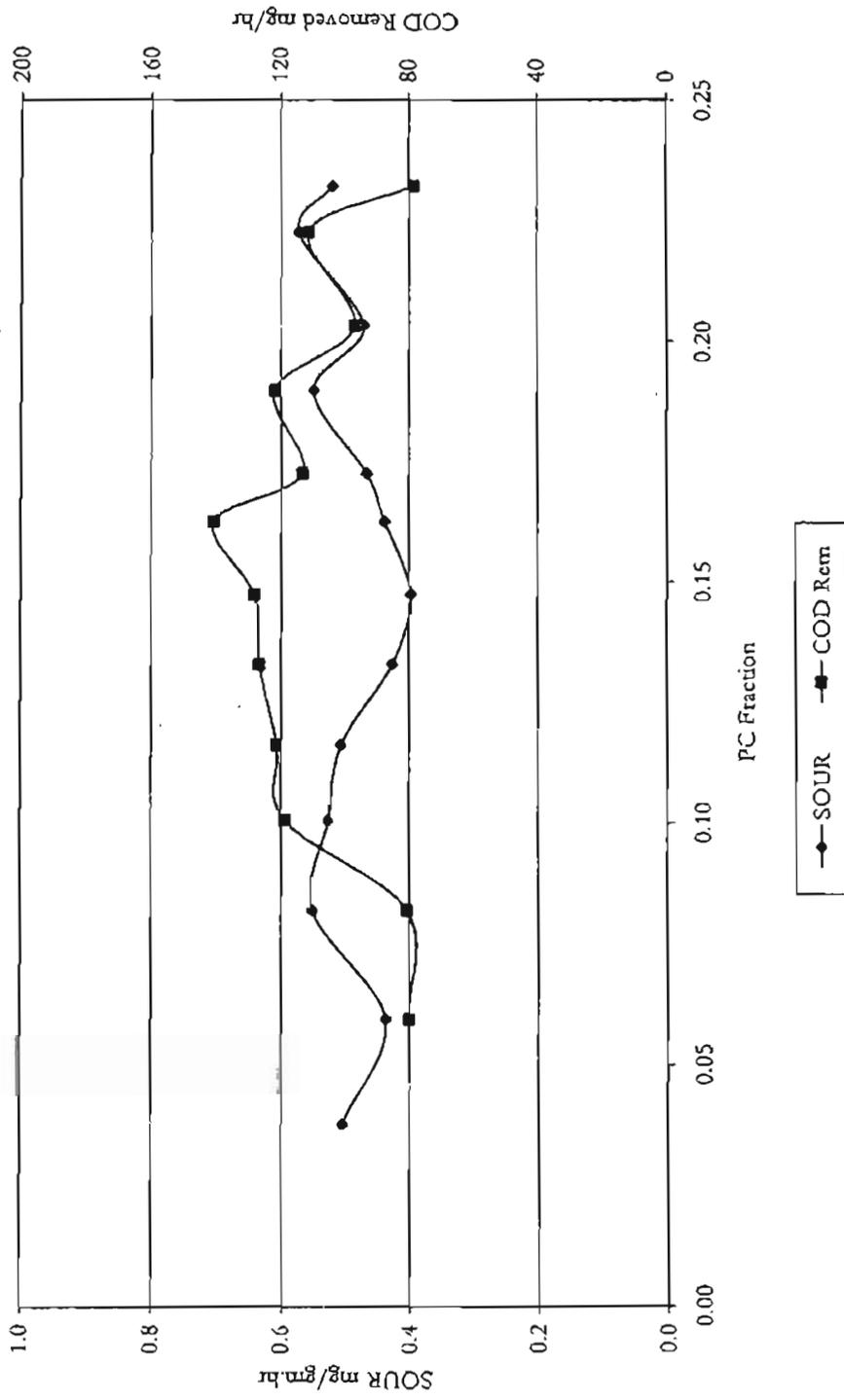


Figure 2. With C-18 (3 pt moving ave)

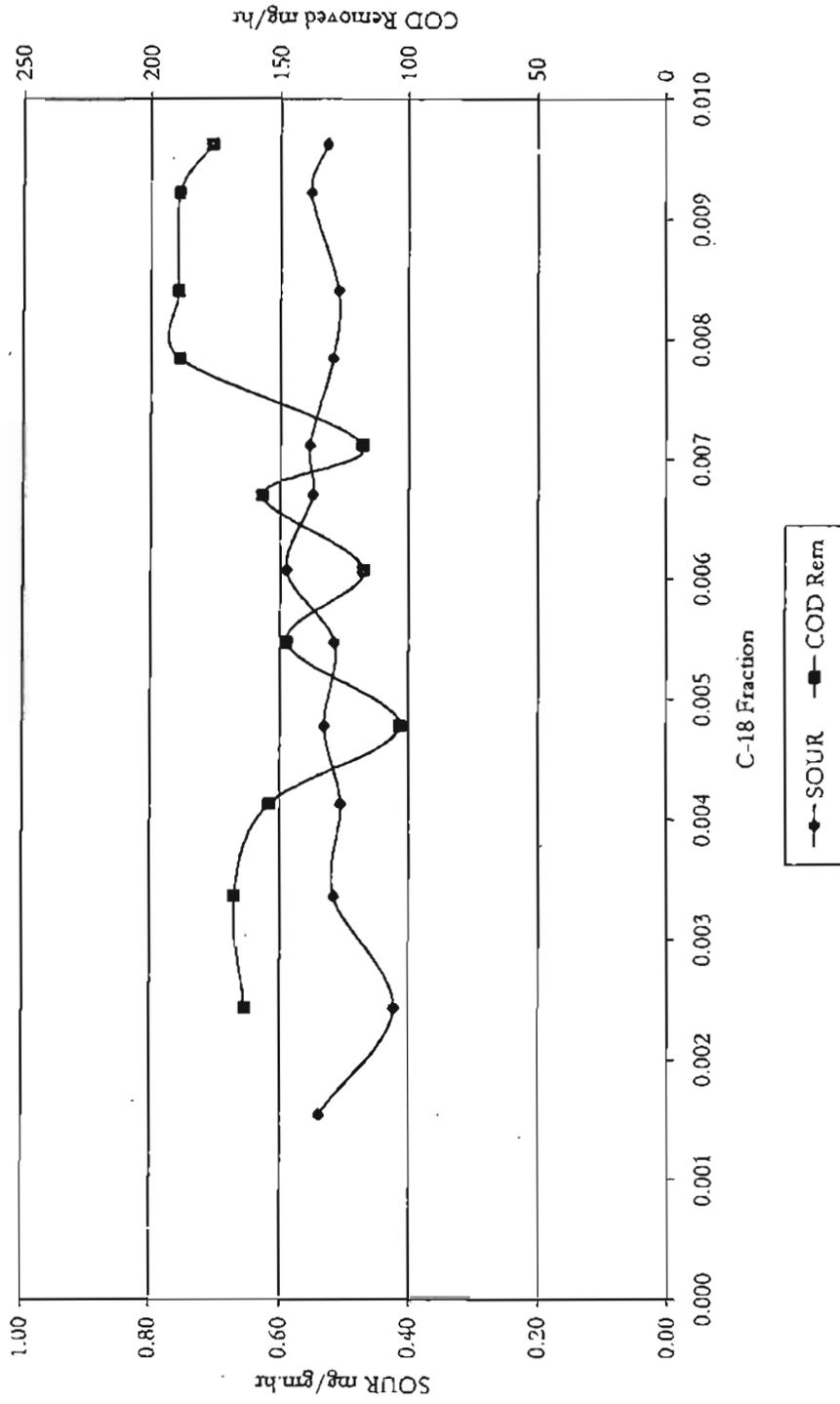


Figure 3. Heavy PC (3 pt moving avg)

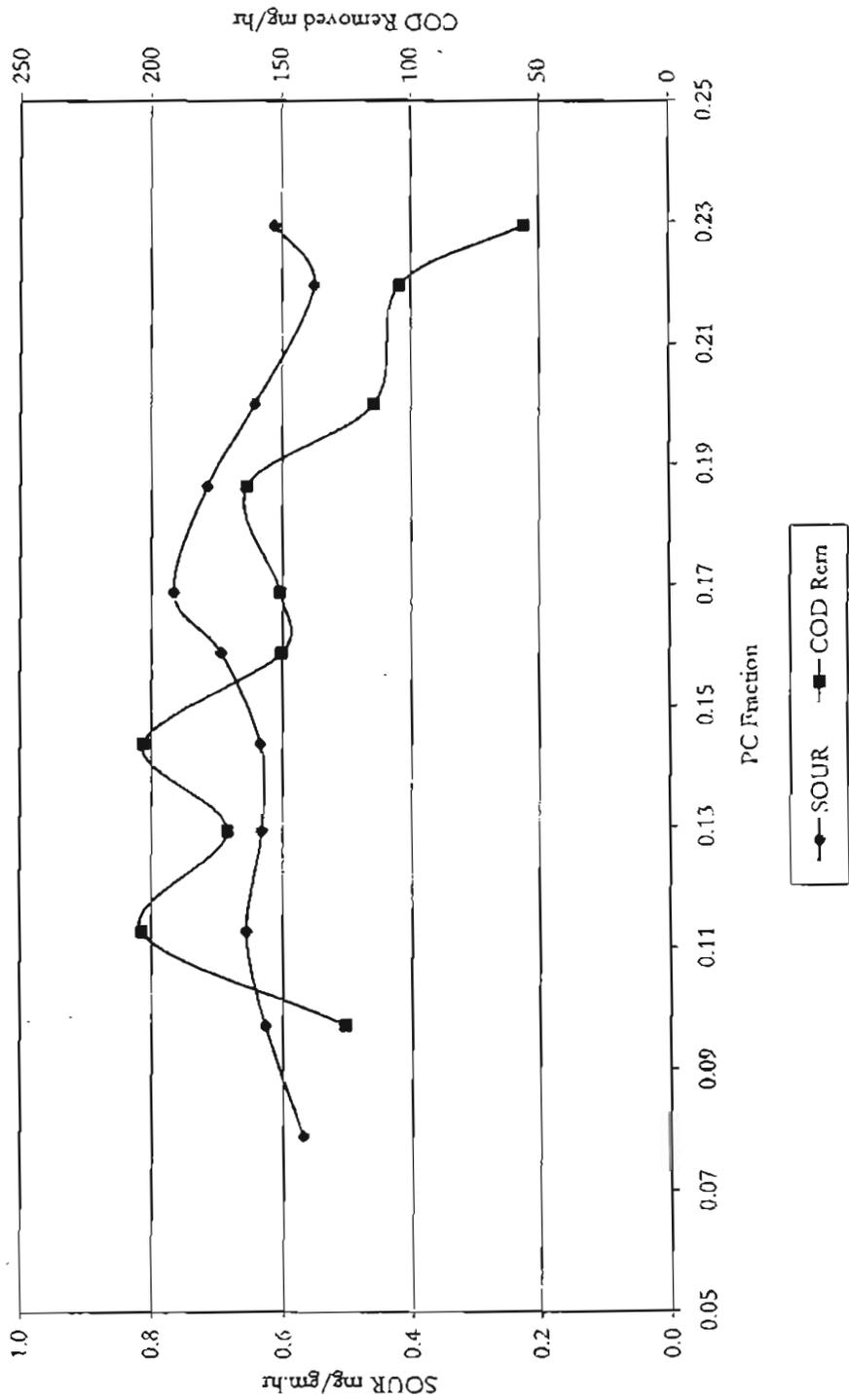
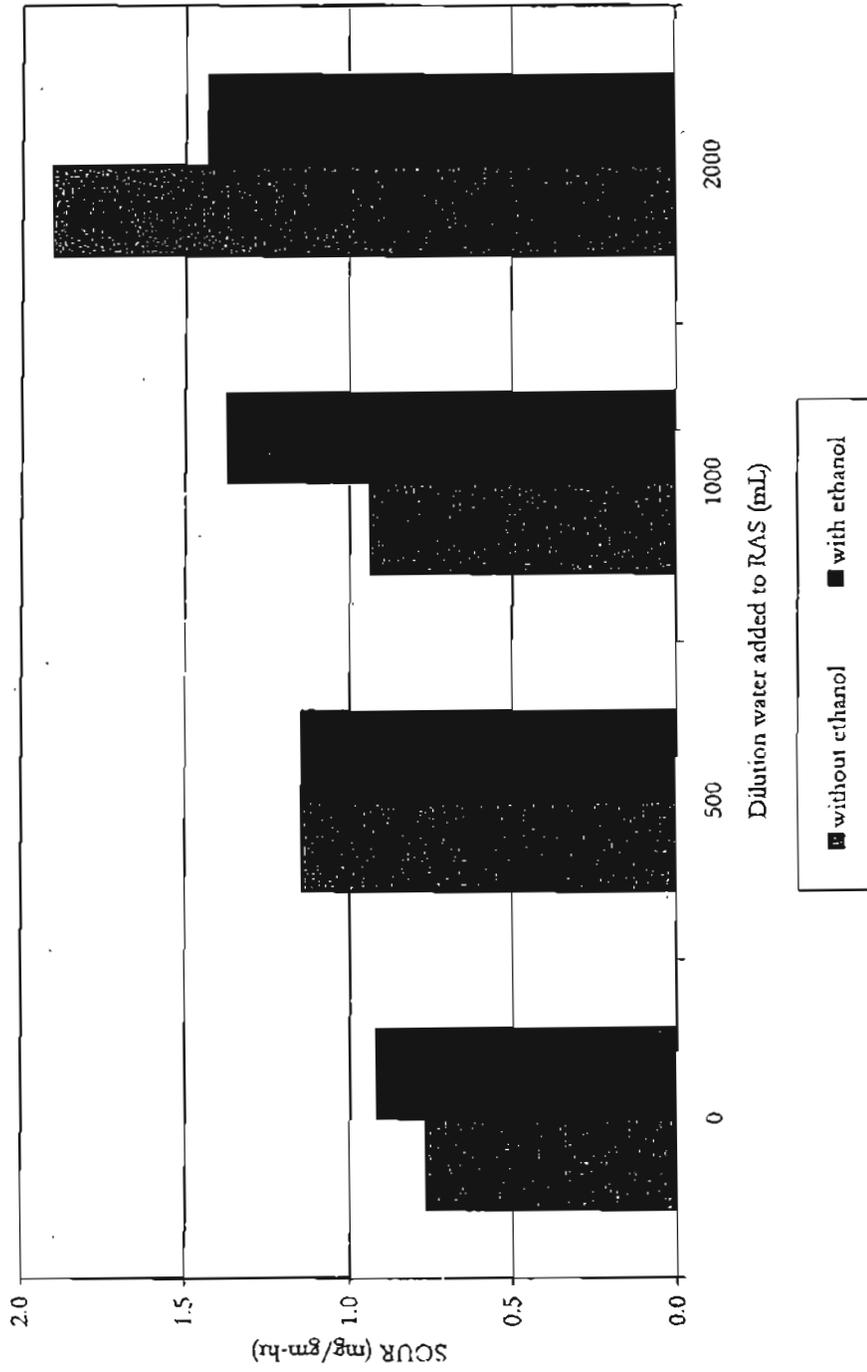


Figure 4. Emerald RAS Dilution Testing





ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

217/782-9720

ROD R. BLAGOJEVICH, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

CERTIFIED MAIL # 7007 0220 0000 0150 4860
RETURN RECEIPT REQUESTED

June 12, 2008

Mr. David Giffin
Emerald Performance Materials
1550 County Road 1450 N
Henry, IL 61537

Re: Compliance Commitment Acceptance, Violation Notice: W-2008-00092
Facility I.D.: IL001392 - Emerald Performance Materials - Henry

Dear Mr. Giffin:

The Illinois Environmental Protection Agency ("Illinois EPA") accepts the Compliance Commitment Agreement ("CCA") proposed by Emerald Performance Materials dated April 2 and May 12, 2008 in response to the Violation Notice dated February 29, 2008. The CCA indicates that appropriate actions have been taken to address the violations cited in Violation Notice W-2008-00092.

Failure to fully comply with the CCA may, at the sole discretion of the Illinois EPA, result in referral of this matter to the Office of the Attorney General, the State's Attorney or the United States Environmental Protection Agency.

The CCA does not constitute a waiver or modification of the terms and conditions of any license or permit issued by the Illinois EPA or any other unit or department of local, state or federal government or of any local, state or federal statute or regulatory requirement.

Questions regarding this matter should be directed to Roger Callaway at 217/782-9720. Written communications should be directed to Beverly Booker at the Illinois Environmental Protection Agency, Bureau of Water, CAS #19, P.O. Box 19276, Springfield, IL 62794-9276, and all communications shall include reference to your Violation Notice Number W-2008-00092.

Sincerely,

Michael S. Garretson, Manager
Compliance Assurance Section
Bureau of Water

bcc: Cathy Siders
Beverly Booker
Bruce Yurdin
Peoria Region, WPC
Connie Tonsor, DLC
Jason Boltz, DLC
Records Unit
Token Nolder

cc: Jeffrey J. Brenner

Exhibit 8



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829

JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

(217) 782-9720

CERTIFIED MAIL # 7007 3020 0002 3213 6369
RETURN RECEIPT REQUESTED

November 20, 2008

Emerald Performance Materials
1550 County Road 1450 N
Henry, IL 61537

Re: Violation Notice: W-2008-00364
Facility I.D.: IL0001392 – Emerald Performance Materials - Henry

Dear Facility Owner:

This constitutes a Violation Notice pursuant to Section 31(a)(1) of the Illinois Environmental Protection Act, 415 ILCS 5/31(a)(1), and is based upon review of available information and investigation by representatives of the Illinois Environmental Protection Agency ("Illinois EPA").

The Illinois EPA hereby provides notice of violations of environmental statutes, regulations or permits as set forth in Attachment A to this letter. Attachment A includes an explanation of the activities that the Illinois EPA believes may resolve the specified violations, including an estimate of a reasonable time period to complete the necessary activities. However, due to the nature and seriousness of the violations cited, please be advised that resolution of the violations may also require the involvement of a prosecutorial authority for purposes that may include, among others, the imposition of statutory penalties.

A written response, which may include a request for a meeting with representatives of the Illinois EPA to be held at an Illinois EPA facility, must be submitted via certified mail to the Illinois EPA within 45 days of receipt of this letter. The response must address each violation specified in Attachment A and include for each, an explanation of the activities that will be implemented and the time schedule for the completion of each activity. Also, if a pollution prevention activity will be implemented, indicate that intention in any written response. The written response will constitute a proposed Compliance Commitment Agreement ("CCA") pursuant to Section 31 of the Act. The Illinois EPA will review the proposed CCA and will accept or reject the proposal within 30 days of receipt.

Page 2

Emerald Performance Materials

VN W-2008-00364

If a timely written response to this Violation Notice is not provided, it shall be considered a waiver of the opportunity to respond and meet, and the Illinois EPA may proceed with a referral to the prosecutorial authority.

Written communications should be directed to BEVERLY BOOKER at the ILLINOIS EPA, BUREAU OF WATER, CAS #19, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276. All communications must include reference to this Violation Notice number, W-2008-00364.

Questions regarding this Violation Notice should be directed to CATHY SIDERS at (217) 782-9720.

Sincerely,



Michael S. Garretson, Manager
Compliance Assurance Section
Bureau of Water

Attachment

bcc: Cathy Siders
Bayerly Booker
Bruce Yurdin
Peoria Region, WPC
Connie Tonsor, DLC
Jason Boltz, DLC
Records Unit
Token Nolder

IL0001392

EMERALD PERFORMANCE MATERIALS

VIOLATION NOTICE: W-2008-00364

Questions regarding the violations identified in this attachment should be directed to CATHY SIDERS at (217) 782-9720.

A review of information available to the Illinois EPA indicates the following violation of statutes, regulations or permits. Included with the violation is an explanation of the activity the Illinois EPA believes may resolve the violation including an estimated time period for resolution.

Effluent Violations

Review the treatment plant operations/operational procedures and evaluate the treatment equipment in order to correct the deficiencies which caused the violations. Compliance is expected to be achieved within 30 days.

<u>Violation Date</u>	<u>Violation Description</u>
05/31/2008	A010 EFFLUENT METHYLENE CHLORIDE EFFLUENT LIMIT
Rule/Reg.:	Section 12(f) of the Act; 415 ILCS 5/12(f) (2006); Ill. Adm. Code 305.102(a) and (b), NPDES Permit
07/31/2008	A010 EFFLUENT METHYLENE CHLORIDE EFFLUENT LIMIT
Rule/Reg.:	Section 12(f) of the Act; 415 ILCS 5/12(f) (2006); Ill. Adm. Code 305.102(a) and (b), NPDES Permit

December 22, 2008

RECEIVED

DEC 30 2008

IEPA/CAS

Law Offices
93 North Wacker Drive
Suite 3700
Chicago, IL
60606-1698
312-569-1000 phone
312-569-3000 fax
www.drinkerbiddle.com

Via Certified Mail and Electronic Mail: bev.booker@illinois.gov

Beverly Booker
Illinois EPA
Bureau of Water, CAS #19
P.O. Box 19276
Springfield, IL 62794-9276

RE: Emerald Performance Materials
Violation Notice: W-2008-00364
Facility I.D.: IL0001392

Dear Ms. Booker:

We represent Emerald Performance Materials ("Emerald") in this matter regarding the above referenced Violation Notice dated November 20, 2008 which was received on or about November 24, 2008. This letter is timely being submitted to formally request a meeting to discuss the address the alleged violations in the above Violation Notice with respect to the effluent limitation for Methylene Chloride set forth in Emerald's NPDES Permit.

Emerald has historically only taken one sample per month as required by the NPDES Permit. Emerald understands that the Illinois Environmental Protection Agency ("IEPA") will use such a sample for compliance purposes with respect to both monthly average and daily maximum limitations. Accordingly, Emerald has begun a process to take samples early in the month. In the event that such a sample shows a problem with the monthly average limit, additional samples can be taken.

As the IEPA is aware Emerald discharges to the Illinois River through a diffuser. There is little to no potential for water quality standard or toxicity concerns. Emerald would like to have representatives of the Permit Section present at the requested meeting so a discussion of possible permit modifications can be held.

RECEIVED

DEC 30 2008

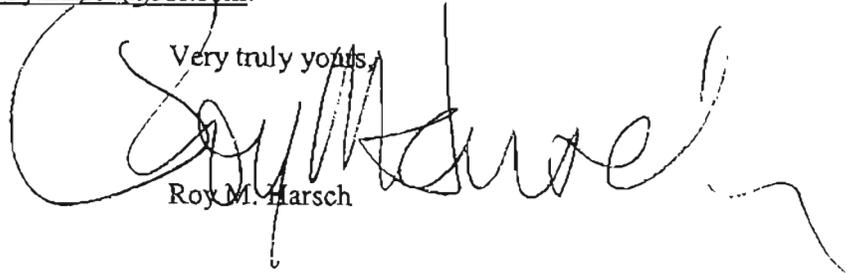
IEPA/CAS

CALIFORNIA
DELAWARE
ILLINOIS
NEW JERSEY
NEW YORK
PENNSYLVANIA
WASHINGTON DC
WISCONSIN

Beverly Booker
December 22, 2008
Page 2

Should the Illinois EPA have any further questions, please contact me at (312) 569-1441 or by email at roy.harsch@dbr.com.

Very truly yours,

A large, stylized handwritten signature in black ink, appearing to read "Roy M. Harsch". The signature is written over the typed name below it.

Roy M. Harsch

RMH/rmh
Enclosure

cc: Jeff Brenner, Emerald.
CH01/25275454.1



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-9720

CERTIFIED MAIL # 7007 2560 0003 2088 5182
RETURN RECEIPT REQUESTED

January 15, 2009

Emerald Performance Materials
1550 County Road 1450 N
Henry, Illinois 61537

Re: Violation Notice: W-2008-00364
Facility I.D.: IL0001392

Dear Facility Owner:

The Illinois Environmental Protection Agency ("Illinois EPA") acknowledges your request for a meeting, which is currently scheduled for January 23, 2009. A party that meets with the Illinois EPA is given 21 days after the meeting to submit a proposed Compliance Commitment ("CCA") pursuant to Section 31(a)(5) of the Environmental Protection Act, 415 ILCS 5/31(a)(5).

Section 31(a)(5) requires you to submit a written response within 21 days following the meeting. Because you have requested a meeting, the Illinois EPA will make its decision on the written meeting response within 30 days of receipt of the response. See Section 31(a)(7). Questions regarding this matter should be directed to Cathy Siders at 217/782-9720.

Sincerely,

Michael S. Garretson, Manager
Compliance Assurance Section
Bureau of Water

cc: Roy Harsch

bcc: Cathy Siders
Beverly Booker
Bruce Yurdin
Peoria Region, WPC
Connie Tonsor, DLC
Jason Boltz, DLC
Records Unit

Law Offices

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NEW JERSEY

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WASHINGTON DC

WISCONSIN

February 12, 2009

RECEIVED

FEB 17 2009

Via Certified Mail and Electronic Mail: bev.booker@illinois.gov

IEPA/CAS

Beverly Booker
Illinois EPA
Bureau of Water, CAS #19
P.O. Box 19276
Springfield, IL 62794-9276

Orig: Records Unit
cc: Beverly Booker
Cathy Siders
Roger Callaway
Bruce Yurdin
Peoria Region, WPC
Agency reply due 03/14/2009

**RE: Emerald Performance Materials
Violation Notice: W-2008-00364
Facility I.D.: IL0001392**

Dear Ms. Booker:

We represent Emerald Performance Materials ("Emerald") in this matter regarding the above referenced Violation Notice dated November 20, 2008. This letter is timely being submitted to address the alleged violations in the above notice with respect to the Emerald facility located in Henry, Illinois. We appreciate the opportunity to have met with representatives of the Illinois Environmental Protection Agency ("IEPA") on February 4, 2009 at your offices. We believe this was a very beneficial meeting for both parties, as we were able to clarify issues regarding the incidents giving rise to the allegations in this matter and what Emerald did to rectify the issues. As such, this letter constitutes Emerald's Compliance Commitment Agreement ("CCA") pursuant to Section 31(a)(5) of the Illinois Environmental Protection Act.

As was explained at the February 4, 2009 meeting, an introduction to the Emerald facility operations is useful in order to understand the context in which the incidents occurred and what Emerald did in response. Emerald has only one process that uses Methylene Chloride ("MeCl"). This process is identified as Curite 18. Emerald's Curite 18 is a batch production process that is carried out only during limited times throughout the year (4 to 6 runs of 7 to 10 days each). There are about four batches produced daily. The MeCl is used as a solvent in the process. Approximately 1385 gallons of MeCl are charged per batch.

After processing, the content of the reactor is allowed to separate into two layers. The water phase is decanted off into a separate waste water tank. The product phase is mixed with clean water and allowed to separate again. The product phase is removed and the MeCl is stripped off and recovered for reuse. The typical recovery rate is very high in the range of 98% to 99%. Thereafter, the water streams that were stored in the separate waste water tank are stripped to remove the residual MeCl and then sent to a separate waste water equalization tank as part of the waste water treatment system (C18 Equalization Tank). Wastewater from this equalization tank is fed at a very low rate of 2

to 4 gallons per minute to the biological treatment system. The controlled discharge is due to the fact that this waste stream has a very high Chemical Oxygen Demand ("COD") and is not related to the levels of MeCl. In fact, this waste stream normally contains a low level of MeCl. Given that MeCl is present in such low levels, it was very important for Emerald to understand the cause of the allegations in the above referenced violation notice.

As evidenced below, Emerald conducted a thorough investigation and was not only able to determine the causes but was also able to implement changes to ensure that the exceedances will not reoccur. As such, Emerald's responses to the allegations are provided below.

1. Exceeded effluent limit of Methylene Chloride, May 31, 2008.

Response: *The cause of the Methylene Chloride effluent exceedances in May, 2008 has been found to be two fold. First, because it's National Pollutant Discharge Elimination System permit ("NPDES") only requires testing once per month, Emerald has historically only performed testing of its wastewater stream once per month. They were not aware that with only one sample, such value would be the daily maximum and the 30 day average concentration, as well as the corresponding loading limits. The second cause was due to the fact that the May result measured a discharge of .06 mg/l of MeCl. While this amount of MeCl is below the daily maximum it is above the 30 day average value. Consequently, had Emerald taken more than one sample and based upon historical sampling results, it is likely that the additional samples would have been found within the normal limits and therefore, the average of such would have been within its NPDES permit limitations.*

Upon receipt of the Violation Notice, and discussions with council, Emerald now understands this problem and has implemented a program to test during the first week of the month. Additionally, as part of its revised program, Emerald has requested that the lab analyzing such samples, will email the results to Emerald personnel, and phone the Plant Health and Safety contact (Michael Dookie) to alert them if the sample result is abnormal and/or above the 30 day average. The expected normal value is below 0.005 mg/l. However, if the sample is found to be significantly higher, Emerald will investigate the cause and take additional samples. These samples must be included in the calculation of the 30 day average and will be reported to the IEPA as part of the Discharge Monitoring Report. Emerald is confident that this procedure should eliminate the type of problem that caused the May exceedance.

2. Exceeded effluent limit of Methylene Chloride, July 2008.

Response:

The July problem was a true problem. Upon receipt of the results, Emerald undertook an examination of the reasons for the exceedance. Based on its internal investigations, it was determined that there was a process upset or malfunction that caused product to enter into the local waste water tank. This coupled with a plugging issue, led the production operator to open the tank and drain it to the normal plant sewer line rather than the C18 waste water sewer line. This meant that a slug of water containing an abnormally high concentration of MeCl, entered the wastewater system at a much higher flow rate than normal; thereby, resulting in excess levels of MeCl in the sample. After interviewing the operator in question and the other operators, it was determined that while there may have been previous instances where waste water was discharged directly to the plant sewer system, it did not contain a high concentration of MeCl. In response to the above, Emerald updated its operational procedures.

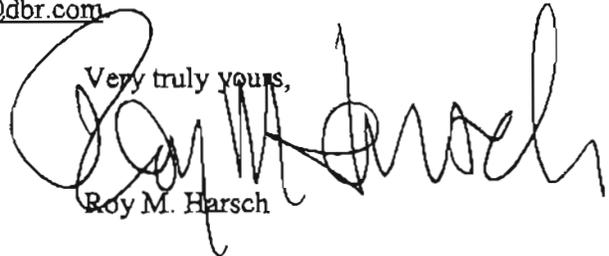
Specifically, to eliminate the potential for reoccurrence, the production procedures now require that all MeCl containing waste water be segregated from the general plant sewer system and that such product not get disposed in the general plant sewer. Moreover, if any problem occurs, the operator is directed to immediately contact his supervisor for instructions. All of the operators have been trained to follow the new procedures. A copy of the updated procedure is attached and marked Exhibit A, as well as a copy of the operator acknowledgment of their training is attached herein marked Exhibit B.

As evidenced above, Emerald has corrected all issues alleged in the November 20, 2008 letter. Moreover, to Emerald's knowledge, the above exceedances are the only two instances of noncompliance with its MeCl NPDES limits. Furthermore, Emerald has implemented procedures to ensure that the alleged violations do not reoccur at its facility. Notwithstanding the above, Emerald would like to clarify that the MeCl issues are not related to the existing CCA it has with the IEPA. In fact, it is as result of the training that was agreed to be carried out as part of the existing CCA, which has led Emerald to be able to quickly identify and resolve the MeCl issues referenced herein.

Ms. Beverly Booker
February 12, 2009
Page 4

We hope that this letter and its enclosures will be accepted by the Illinois EPA as Emerald's CCA. Should the Illinois EPA have any further questions, please contact me at (312) 569-1441 or by email at roy.harsch@dbr.com

Very truly yours,

A handwritten signature in black ink, appearing to read "Roy M. Harsch". The signature is written in a cursive style with a large initial "R" and "M".

Roy M. Harsch

RMH/rmh

Enclosure

cc: Jeffrey Brenner, Emerald Performance

CH01/25301570.1

 Henry, Illinois	<i>Manufacturing Work Instruction</i>	C18-68
	Waste Water Tank Clean-Up	Rev. # 02
	Approved By: <i>John Smith</i>	Effective Date: 01/10/2009
		Page 1 of 1

REASON FOR CHANGE: Update current procedure

1. Run the Waste Water Tank Empty using the North Feed Nozzle
 - 1.1. Call up MeCl₂ Recovery Column Display. The following steps use DSR's from this display.
 - 1.2. Run the Waste Water Tank as low as possible through the column using the North Feed Nozzle.
 - 1.3. The operation will fail when the level in the Waste Water Tank reaches 10%.
 - 1.4. To completely empty the Waste Water Tank:
 - 1.4.1. Take the Waste Water Tank level (#28 on display) ROS.
 - 1.4.2. Change PV of level to above 10%.
 - 1.4.3. Restart the operation. Feed the Column till you are no longer able to maintain feed rates.
 - 1.4.4. Stop the operation

NOTE: If the level is taken ROS before it reaches 10% you won't have to restart the unit.

- 1.5. Put Waste Water Tank level indicator (#28 on display) back on-scan.
- 1.6. Isolate the MeCl₂ Storage Tank, including Equalization Line and Decant Water Leg Line.
- 1.7. Open Waste Water Tank manhead and check for residual product.
- 1.8. Close and secure manhead tightly.

2. If Waste Water Tank is clean:

- 2.1. Turn off the contact condenser water.
- 2.2. Pump the remaining heel to the MeCl₂ Storage Tank using the South Feed Nozzle.

3. If Waste Water Tank is NOT clean:

NOTE: Operator will need to set the Pit Valves to change the flow to the CureRite-18 Waste Tank.

- 3.1. Flush additional 5% cold water to the tank.
- 3.2. Open feed lines on both ends of the Waste Water Tank.
- 3.3. Open the two manual valves to the pit.
- 3.4. Turn on the column feed pump (#29 on display) and pump any remaining tank level to the pit.
- 3.5. IF unable to pump liquid:
 - 3.5.1. Open the 4" bottom drain valve.
 - 3.5.2. Open Waste Water Tank manhead and check for residual product.
 - 3.5.3. Rinse out tank to the dike.
 - 3.5.4. Close the bottom drain valve.



THIS IS NOT OPTIONAL — John

PROCEDURE REVIEW FORM

1. Please review the attached procedure.
2. Approve the attached procedure by checking the appropriate box next to your name.
3. If making suggestions, please make notes directly on the procedure, and check the appropriate box below.
4. All operators are required to review the procedure.

	Acceptable as-is	Made Suggestions
Davis	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Goddard	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kingen	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Klein	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perry	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sager	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Smith	<input checked="" type="checkbox"/>	<input type="checkbox"/>





ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 - (217) 782-2829
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 - (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-9720

CERTIFIED MAIL # 7007 2560 0003 2088 6103
RETURN RECEIPT REQUESTED

March 10, 2009

Emerald Performance Materials
1550 County Road 1450 N
Henry, IL 61537

Re: Compliance Commitment Acceptance, Violation Notice: W-2008-00364
Facility I.D.: IL0001392 - Emerald Performance Materials - Henry

Dear Facility Owner:

The Illinois Environmental Protection Agency ("Illinois EPA") accepts the Compliance Commitment Agreement ("CCA") proposed by Emerald Performance Materials in a letter dated February 12, 2009, in response to the Violation Notice dated November 20, 2008. According to the CCA, the necessary actions have been taken to achieve compliance.

Failure to fully comply with the CCA may, at the sole discretion of the Illinois EPA, result in referral of this matter to the Office of the Attorney General, the State's Attorney or the United States Environmental Protection Agency.

The CCA does not constitute a waiver or modification of the terms and conditions of any license or permit issued by the Illinois EPA or any other unit or department of local, state or federal government or of any local, state or federal statute or regulatory requirement.

Questions regarding this matter should be directed to Cathy Siders at 217/782-9720. Written communications should be directed to Beverly Booker at the Illinois Environmental Protection Agency, Bureau of Water, CAS #19, P.O. Box 19276, Springfield, IL 62794-9276, and all communications shall include reference to your Violation Notice Number W-2008-00364.

Sincerely,

[Handwritten signature of Michael S. Garretson]

Michael S. Garretson, Manager
Compliance Assurance Section
Bureau of Water

bcc: Cathy Siders
Beverly Booker
Bruce Yurdin
Peoria Region, WPC
Connie Tonsor, DLC
Jason Boltz, DLC
Records Unit
Token Nolder

cc: Roy Harsch

Exhibit 9



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 614-6026

PAT QUINN, GOVERNOR

217/782-9720

CERTIFIED MAIL # 7009 2820 0001 7493 6105
RETURN RECEIPT REQUESTED

March 31, 2011

Emerald Performance Materials
1550 County Road 1450 North
Henry, IL 61537

Re: Violation Notice: W-2011-30116
Facility I.D.: IL0001392 – Emerald Performance Materials

Dear Facility Owner:

This constitutes a Violation Notice pursuant to Section 31(a)(1) of the Illinois Environmental Protection Act, 415 ILCS 5/31(a)(1), and is based upon review of available information and investigation by representatives of the Illinois Environmental Protection Agency ("Illinois EPA").

The Illinois EPA hereby provides notice of violations of environmental statutes, regulations or permits as set forth in Attachment A to this letter. Attachment A includes an explanation of the activities that the Illinois EPA believes may resolve the specified violations, including an estimate of a reasonable time period to complete the necessary activities. However, due to the nature and seriousness of the violations cited, please be advised that resolution of the violations may also require the involvement of a prosecutorial authority for purposes that may include, among others, the imposition of statutory penalties.

A written response, which may include a request for a meeting with representatives of the Illinois EPA to be held at an Illinois EPA facility, must be submitted via certified mail to the Illinois EPA within 45 days of receipt of this letter. The response must address each violation specified in Attachment A and include for each, an explanation of the activities that will be implemented and the time schedule for the completion of each activity. A statement of compliance must be completed (Enclosed). Also, if a pollution prevention activity will be implemented, indicate that intention in any written response. The written response will constitute a proposed Compliance Commitment Agreement ("CCA") pursuant to Section 31 of the Act. The Illinois EPA will review the proposed CCA and will accept or reject the proposal within 30 days of receipt.

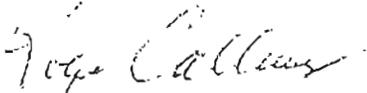
Page 2
Emerald Performance Materials
VN W-2011-30116

If a timely written response to this Violation Notice is not provided, it shall be considered a waiver of the opportunity to respond and meet, and the Illinois EPA may proceed with a referral to the prosecutorial authority.

Written communications should be directed to the VN COORDINATOR at the ILLINOIS EPA, BUREAU OF WATER, CAS #19, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276. All communications must include reference to this Violation Notice number, W-2011-30116.

Questions regarding this Violation Notice should be directed to Cathy Siders at 217/782-9720.

Sincerely,



Roger Callaway
Compliance Assurance Section
Bureau of Water

Attachment(s)

BOW ID: W1236150002

bcc: WW VN File
Cathy Siders
Bruce Yurdin
Rockford Reg.,
Chuck Corley
Connie Tonsor, DLC
Chuck Gunnarson, DLC
Sharon Dowson
Token Nolder

ATTACHMENT A

IL0001392

Emerald Performance Materials

VIOLATION NOTICE: W-2011-30116

Questions regarding the violations identified in this attachment should be directed to CATHY SIDERS at (217) 82-9720.

This violation notice indicates regulations and statutes with which you are out of compliance. If you have corrected these violations and are currently in compliance, upon submission of the response to this violation notice, you must state that you are in compliance. You may submit the attached "Illinois EPA Compliance Statement" or other similar writing to satisfy the statement of compliance. If compliance will be achieved after completion of interim measures (a compliance schedule); and the Illinois EPA accepts those measures as a CCA, you must state that the measure(s) are completed and that you have returned to compliance at the conclusion of the schedule established in the CCA.

A review of information available to the Illinois EPA indicates the following violations of statutes, regulations, and permits. Included with each type of violation is an explanation of the activities that the Illinois EPA believes may resolve the violation including an estimated time period for resolution.

Effluent Violations:

Review the treatment plant operations/operational procedures and evaluate the treatment equipment in order to correct the deficiencies which caused the violations. Compliance is expected to be achieved within 30 days.

<u>Violation Date</u>	<u>Violation Description</u>
1/30/2010	A01-0 Solids, Total Suspended Effluent Limit
Rule/Reg.:	Section 12(a) and (f) of the Act, 415 ILCS 5/12 (a) and (f) (2008) 35 Ill. Adm. Code 304.141(a) and NPDES Permit
2/31/2010	A01-0 Solids, Total Suspended Effluent Limit
Rule/Reg.:	Section 12(a) and (f) of the Act, 415 ILCS 5/12 (a) and (f) (2008) 35 Ill. Adm. Code 304.141(a) and NPDES Permit
7/31/2011	A01-0 Solids, Total Suspended Effluent Limit
Rule/Reg.:	Section 12(a) and (f) of the Act, 415 ILCS 5/12 (a) and (f) (2008) 35 Ill. Adm. Code 304.141(a) and NPDES Permit



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

Illinois EPA Compliance Statement

You are required to state that you have returned to compliance with the Act and the regulations that were the subject of the violation notice (VN) (415 ILCS 5/31). The owner of the facility must acknowledge compliance and/or that all compliance commitment agreement (CCA) interim measures/events have been successfully completed and compliance has been achieved.

Please complete, sign, and return.

I _____ (*print name*), hereby certify that all violations addressed in
Violation Notice (VN) number _____ have been addressed and that compliance
was achieved on _____ (*date*).

Signature

Title

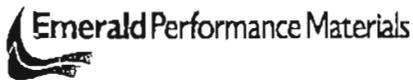
Telephone Number

Date

Be sure to retain copies of this document for your files. Should you need additional notification forms, please contact this office at (217)785-0561. Return this completed form to:

Illinois Environmental Protection Agency
Compliance Assurance Section #19
Bureau of Water
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

"Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Agency, ...related to or required by this Act, a regulation adopted under this Act, any federal law or regulation for which the Agency has responsibility, or any permit, term, or condition thereof, commits a Class 4 felony..." (415 ILCS 5/44(h) (8))



Emerald Performance Materials
1550 County Road 1450 N
Henry, Illinois 61537
309-364-2311

RECEIVED

JUN 01 2011

IEPA/CAS

CERTIFIED MAIL: 7006 0810 0006 5101 3659
VN Coordinator Illinois EPA
Bureau of Water CAS #19
Post Office Box 19276
Springfield, Illinois 62794-9276

CERTIFIED MAIL: 7006 0810 0006 5101 3666
Mr. Todd Huson
IEPA-Regional Office
5415 N. University
Peoria, IL 61614

Re: Violation Notice W-2011-30116

5/12/11

Dear Sirs:

We are in receipt of Violation Notice 2011-30116 regarding total suspended solids ("TSS") exceedances. We would like to take this opportunity to explain the circumstances surrounding the exceedances of our NPDES Permitted TSS limitations. The exceedance on TSS began in November of 2010 and came unexpectedly. We perform sampling for TSS at six different locations within our system. These locations are our primary clarifier, PVC Tank, PC tank, 213 tank, PVC lift station and our secondary clarifier. In addition to these daily samples we also sample the C-18 storage tank when that process is running also on a daily basis. I have attached a flow diagram to this correspondence to help with the visualization. During the period of our TSS exceedances none of the areas tested on a daily basis showed unprecedented levels of TSS. The TSS levels at all the various locations were typical of what our TSS have been. Our filter press which is a 69 plate filter press was operating well within its normal parameters. Our Aqua Filters which serve as a tertiary form of filtration were also operating as normal. The exceedances did not have a readily discernible cause. The TSS exceedances appear to have been caused by an ultra-fine solid of unknown origin within our system.

To determine a method of dropping this solid out we did the following:

- 1) We contacted our current (at the time) polymer vendor to initiate polymer chemical studies in an effort to drop the solids out in the primary clarifier. We immediately implemented the recommendation of our vendor to increase the usage dosage of the polymers we were using. This resulted in a lowering of the TSS levels within our system. In correspondence dated 12/2/2010 the vendor said: "Primary clarification is doing well with utilizing the P812A only, no need for any changes due to low TSS in primary effluent. The secondary has improved greatly as the floc formation has improved as seen under microscope as well as within the settlometer test".

Four days later our TSS effluent levels reached the highest level of the period at 120 mg/l. This value was totally unexpected given the immediate improvement that the increased polymer dosage had initially had. The result was also not expected by our then polymer vendor.

- 2) Because our existing polymer vendor's advice had not worked, we incorporated the services of another polymer vendor in hopes of chemically enhancing the removal the solids to lower our TSS effluent values. This vendor utilized a slightly different approach but the results were similar. We continued to have TSS exceedances.
- 3) We contacted Siemens Water Technology and enlisted their services to verify that our filter press was performing as it was designed to do. Siemens concluded: "It is not known at this time if the press is in fact capable of keeping pace with the current "new" sludge solids volume and type". Basically this failed to provide any help.

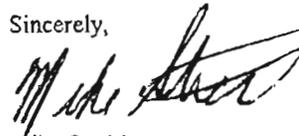
- 4) We contacted a pre-coat specialist to examine our pre-coat on the filter press. The vendor suggested doubling the quantity of pre-coat in an effort to capture more solids. We initiated the additional pre-coat application with no change in our TSS.
- 5) We invited a third polymer vendor in to examine our situation. This vendor had past experience with our system and our processes. They recommended that we switch polymers and dosages. We immediately accepted their recommendation and began to utilize their polymer at their recommended dosages. The result was an immediate lowering of our TSS levels to that which is below our NPDES Permit limit. We continue to utilize their product and have been able to remain in compliance.
- 6) We have altered the 213 pre-treatment system reversing the sequence of addition on ferric chloride and caustic soda in hopes of dropping even more solids out earlier in the waste treatment process.
- 7) We have had the manufacturer of our aqua filters, Aqua Aerobics, do a thorough examination of our sand filters to ensure that they are capable of capturing the maximum solids.

As you can see from all of the steps listed above, we proceeded to implement a concerted effort in attempting to reduce the excess TSS in our system. We have been successful in reducing the TSS level in our effluent and have been in compliance with our NPDES Permit limits since February 15th. That being said, we realize that we still have yet to discover the source of the solids. It is imperative that we find the source of the solids so that we can treat the problem closer to the source and farther away from our discharge. To do this we have examined the process on the Emerald side of the plant. No new processes or raw materials have been introduced that one would suspect could cause the solids. We are working with PolyOne to determine if any of their processes have changed in a way that would cause problems in waste treatment. We have performed testing on some of the effluent from their processes but have yet to find any one process which could be causing our solids issue. This work is continuing.

In summary, we have remained in compliance on TSS since mid-February. We have achieved this compliance by switching our polymers allowing for more settling and by switching the addition of the ferric chloride and caustic soda in the 213 pre-treat system. The inspection of our aqua filters by Aqua Aerobics verified that we were capturing the remaining solids in our tertiary filter system.

We will continue to study our system utilizing all resources available until we can determine the source of the ultra-fine solids. Please accept this as a Compliance Commitment Agreement. If you have any questions or additional concerns we would be pleased to address them.

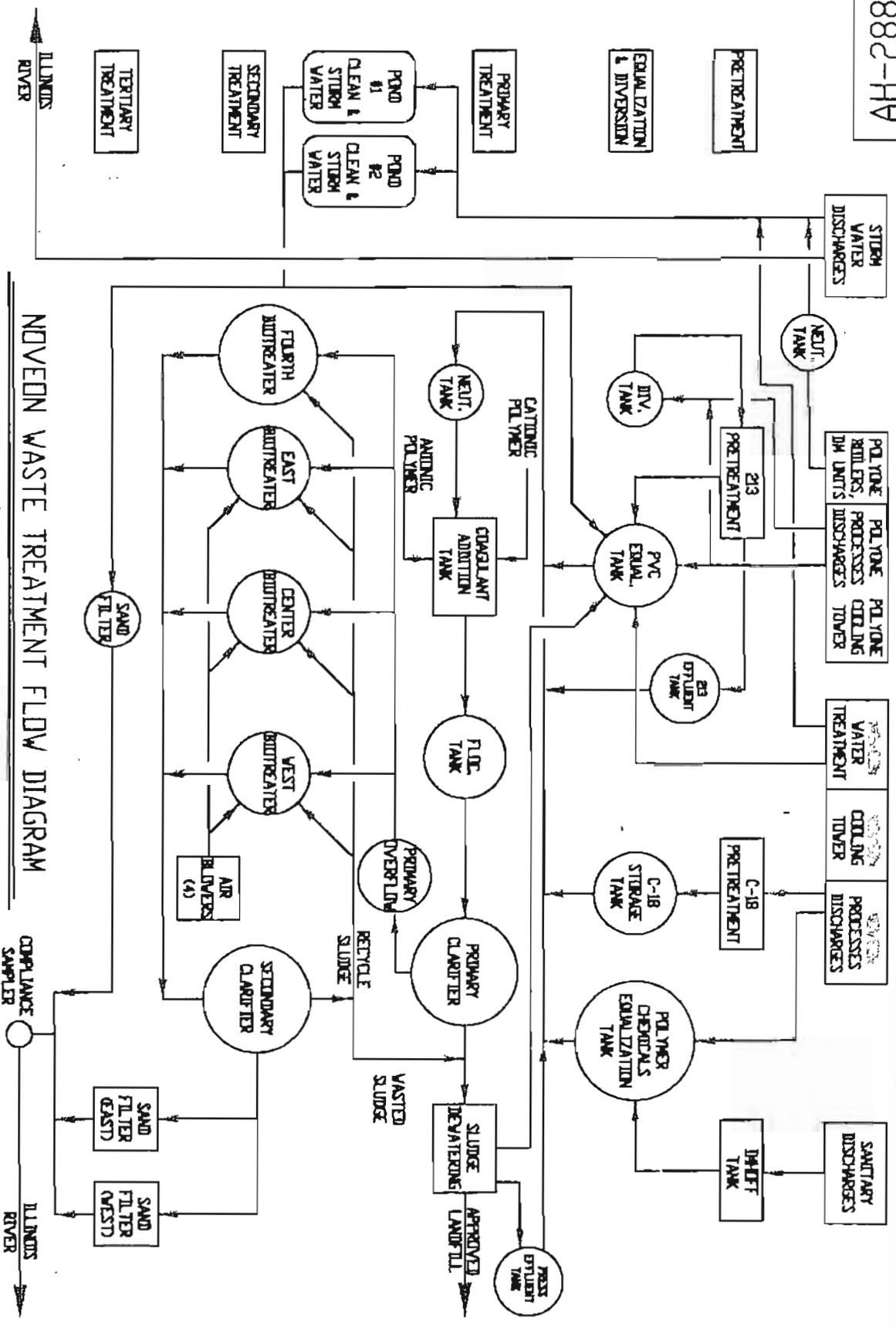
Sincerely,



Mike Strabley
HSE Manager

Cc. Roy M. Harsch

AH-2884



NOVEON WASTE TREATMENT FLOW DIAGRAM

Drawn: JFM Checked: DEG
 Date: 9-29-04 Date: 9-29-04

578 No. _____
 2889 No. 2478

Noveon

AH-2884 REV. C
 NONE



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

217/782-9871

CERTIFIED MAIL # 7009 2820 0001 7493 168T
RETURN RECEIPT REQUESTED

June 20, 2011

Emerald Performance Materials
1550 County Road 1450 North
Henry, Illinois 61537

Re: Compliance Commitment Acceptance, Violation Notice: W-2011-30116
Facility I.D.: IL0001392 – Emerald Performance Materials

Dear Facility Owner:

The Illinois Environmental Protection Agency ("Illinois EPA") accepts the Compliance Commitment Agreement ("CCA") proposed by Emerald Performance Materials in response to a Violation Notice dated March 31, 2011. According to the CCA, Emerald Performance Materials has taken action to resolve the violations indicated in the Violation Notice.

Failure to fully comply with the CCA may, at the sole discretion of the Illinois EPA, result in referral of this matter to the Office of the Attorney General, the State's Attorney or the United States Environmental Protection Agency.

The CCA does not constitute a waiver or modification of the terms and conditions of any license or permit issued by the Illinois EPA or any other unit or department of local, state or federal government or of any local, state or federal statute or regulatory requirement.

Questions regarding this matter should be directed to Greg Spencer at 217/782-9871. Written communications should be directed to the Wastewater Violation Notice Coordinator at the Illinois Environmental Protection Agency, Bureau of Water, CAS #19, P.O. Box 19276, Springfield, IL 62794-9276, and all communications shall include reference to your Violation Notice Number W-2011-30116.

Sincerely,

Roger Cailaway
Compliance Assurance Section
Bureau of Water

BOW ID: W 1230050002



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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PAT QUINN, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

Illinois EPA Compliance Statement

You are required to state that you have returned to compliance with the Act and the regulations that were the subject of the violation notice (VN) (415 ILCS 5/31). The owner of the facility must acknowledge compliance and/or that all compliance commitment agreement (CCA) interim measures/events have been successfully completed and compliance has been achieved.

Please complete, sign, and return.

I MIKE STRABLEY (print name), hereby certify that all violations addressed in Violation Notice (VN) number W-2011-30116 have been addressed and that compliance was achieved on FEBRUARY 15TH 2011 (date).

Mike Strabley
Signature

HSE MANAGER
Title

309-364-9411
Telephone Number

6/15/2011
Date

Be sure to retain copies of this document for your files. Should you need additional notification forms, please contact this office at (217)785-0561. Return this completed form to:

Illinois Environmental Protection Agency
Compliance Assurance Section #19
Bureau of Water
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

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Rockford • 4307 N. State St., Rockford, IL 61103 • (815) 987-7760

Eggin • 395 S. State, Eggin, IL 60123 • (815) 608-1131

Bureau of Land - Peoria • 7620 N. University St., Peoria, IL 61614 • (309) 693-5462

Des Plaines • 9211 W. Harrison St., Des Plaines, IL 60018 • (847) 294-4000

Peoria • 5415 N. University St., Peoria, IL 61614 • (309) 693-5462

Champaign • 2125 S. First St., Champaign, IL 61820 • (217) 278-5800