

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
Petition of Emerald Performance)	AS 13-2
Materials LLC for an Adjusted)	(Adjusted Standard)
Standard from 35 Ill. Adm. Code.)	
304.122(b))	

NOTICE OF FILING

PLEASE TAKE NOTICE that we have filed today with the Illinois Pollution Control Board AGREED RECOMMENDED CONDITIONS and AGREED MOTION TO MODIFY OR RESCIND BOARD ORDER copies of which is herewith served upon you.

EMERALD PERFORMANCE
MATERIALS, LLC

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: s/ Roy Harsch (with consent)
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By: s/Joanne Olson
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IN THE MATTER OF:)
Petition of Emerald Performance) AS 13-2
Materials LLC for an Adjusted) (Adjusted Standard)
Standard from 35 Ill. Adm. Code.)
304.122(b))

AGREED RECOMMENDED CONDITIONS

NOW COME the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (“Illinois EPA” or “Agency”), and EMERALD PERFORMANCE MATERIALS, LLC (“Emerald”), by and through their counsel, and hereby submit their agreed recommended conditions in the above captioned matter. In support thereof, the following statements are made:

1. Emerald filed its Petition for Adjusted Standard on August 28, 2012.
2. On January 12, 2013, the Agency filed its Recommendation to deny Emerald’s requested relief. The Agency’s Recommendation included 9 conditions that the Illinois EPA believed should be included if the Board grants Emerald regulatory relief over the Agency’s objections. The conditions included in Illinois EPA's Recommendation are attached as Exhibit A.
3. Emerald and the Illinois EPA have reached an agreement on the recommended conditions that should be included in any regulatory relief granted by the Board. The Illinois EPA, however, continues to maintain that the Board should not grant Emerald’s requested adjusted standard for the reasons set forth in its Recommendation.
4. This agreement by Emerald and Illinois EPA as to what conditions should be included by the Board as the conditions imposed in any relief granted in this proceeding is based upon the following agreed upon revisions to what the Illinois EPA originally included on pages

22 and 23 in the Recommendation it filed on January 14, 2012 as recommended conditions. See Exhibit A.

A. With respect to Illinois EPA's recommended condition "A", the parties agree as follows: Emerald's effluent limit for ammonia nitrogen is a daily maximum of 140 mg/L and 1633 lbs/day and a 30-day average of 110 mg/L and 841 lbs/day. The daily maximum load limit and 30-day average load limits are based on a daily maximum flow rate of 1.4 MGD and a daily average flow rate of 0.917 MGD, respectively, as is listed in Emerald's 2007 NPDES permit.

B. With respect to Illinois EPA's recommended condition "B", the parties agree to withdraw this condition. Emerald's NPDES permit will contain the whole effluent toxicity testing requirements.

C. With respect to Illinois EPA's recommended condition "C", the parties agree to withdraw this condition. Emerald's 2007 NPDES permit and the renewal NPDES Permit that will be proposed following the conclusion of this proceeding will contain the monitoring requirements.

D. With respect to Illinois EPA's recommended condition "D", the parties agree as follows: Emerald investigates new production methods and technologies that generate less ammonia and nitrification inhibitors in Emerald's discharge. The nitrification inhibitors such as 2-Mercaptobenzothiazole ("MBT") are the chief cause of inhibiting nitrification in the treatment system which allows for ammonia to discharge.

E. With respect to Illinois EPA's recommended condition "E", the parties agree as follows: Emerald investigates new treatment technologies and evaluates implementation of new and existing technology based on current plant conditions. There

are constant advances in treatment technologies and considering the type of discharge and the length of the agreement, such an investigation would be beneficial.

F. With respect to the Illinois EPA recommended condition "F", Emerald has agreed to conduct an additional study to evaluate the use of granular activated carbon to treat the PC tank waste water before it combines with non-PC tank waste water to determine if this treatment alternative effectively removes inhibitors, including MBT, which would then allow for biological treatment. It is anticipated that this study would include a technical feasibility evaluation and an economic feasibility analysis.

G. With respect to the Illinois EPA recommended condition "G", because Illinois EPA believes that the nitrogen in Emerald's effluent could be of agronomic benefit through spray irrigation on crops, and Emerald has not previously evaluated land application of its waste stream as an alternative means to reduce ammonia discharges to the Illinois River, the Illinois EPA recommended, and Emerald has agreed to conduct, a study to determine the technical feasibility and the economic feasibility of a spray irrigation program. The feasibility determinations will include an evaluation of compliance with the applicable design standards for slow rate land application of treated wastewaters (35 Ill. Adm. Code: Subtitle C, Part 372).

H. With respect to the Illinois EPA recommended condition "H", because Illinois EPA believes that Emerald may be able to achieve nitrification by dilution of waste water from the PC tank with water from the Illinois River, the Illinois EPA recommended, and Emerald has agreed to conduct, a study to investigate adding water from the Illinois River to the wastewater in order to determine the potential for

subsequent single-stage nitrification in light of the potential dilution. The study may include a technical feasibility evaluation and an economic feasibility analysis.

I. With respect to the Illinois EPA recommended condition "I", Illinois EPA and Emerald agree to the condition as originally proposed by the Illinois EPA and therefore Emerald will prepare and submit to the Illinois EPA annual reports summarizing its activities to comply with the above stated recommendations.

J. Illinois EPA and Emerald concur to the addition of a new recommended condition, which provides: If, upon the review of the annual reports required by Paragraph I above, the Illinois EPA determines that new technology to treat ammonia is available that is economically reasonable and technically feasible, the Illinois EPA may petition the Board to modify the relief granted by the Board.

K. With respect to Paragraph 3.a of the Hearing Officer Order dated August 1, 2013, Illinois EPA and Emerald concur that if the Board grants relief to Emerald that the requested relief be subject to the agreed upon conditions and that the relief terminate ten (10) years from the effective date of the Board Order granting such relief.

5. The joint recommended conditions have been renumbered and are attached as Exhibit B.

6. In lieu of a hearing on this matter, Illinois EPA and Emerald today are requesting in a companion motion that the docket from AS 2002-005 be incorporated by reference pursuant to 35 Ill. Adm. Code 101.306, and request the hearing requirement be waived. Emerald's petition presents the same technical treatment alternatives presented in the petition for adjusted standard filed by Emerald in AS 2002-005, on which the Board held a hearing in 2004 and granted relief to Emerald.

7. The Illinois EPA maintains that Emerald's requested relief should be denied for the reasons set forth in its Recommendation.

WHEREFORE, for the reasons stated herein, Illinois EPA and Emerald respectfully requests that the docket in AS 2002-05 be incorporated by reference in lieu of a hearing on this matter, and that the Board include the above stated agreed conditions in any relief granted by the Board over the Agency's objection.

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EXHIBIT A Illinois EPA's Recommended Conditions

The following conditions were included in the Illinois EPA's recommendation filed with the Board on January 14, 2013.

- A. Emerald's effluent limit for ammonia nitrogen be reduced by 48% from 155 mg/l to 80 mg/l to reflect the 48% reduction in the effluent waste load.
- B. Emerald performs aquatic life whole effluent toxicity tests using a fish (fathead minnow) and invertebrate (Ceriodaphnia) using an effluent dilution series that will allow for 100% survival in the lowest effluent concentration tested. A successful test and dilution series will result in an LC50 effluent concentration that does not include a "less than" designation.
- C. Emerald conducts quarterly monitoring of ammonia nitrogen in the Illinois River to demonstrate compliance with the ammonia water quality standards in accordance with 35 Ill. Adm. Code 302.212.
- D. Emerald investigates new production methods and technologies that generate less ammonia in Emerald's discharge.
- E. Emerald investigates new treatment technologies, including but not limited to Fenton's reagent treatment, photo assisted Fenton systems, hydrogen peroxide/uv treatment, and evaluates implementation of new and existing technologies based on current plant conditions.
- F. Emerald investigates and submits a study to the Illinois EPA on the use of granular activated carbon column of the PC tank waste water before the waste water combines with non-PC tank waste water, followed by biological nitrification.
- G. Emerald investigates and submits a study to Illinois EPA on the use of its effluent for spray irrigation on crops.
- H. Emerald investigates and submits a study to Illinois EPA on the dilution of waste water from the PC tank with water from the Illinois River
- I. Emerald prepares and submits to the Illinois EPA annual reports summarizing its activities to comply with above stated recommendations.

EXHIBIT B Joint Recommended Conditions

Should the Board decide to grant Emerald's requested adjusted standard over the Agency's objection, the Agency and Emerald recommend the following conditions be included:

- A. Emerald's effluent limit for ammonia nitrogen is a daily maximum of 140 mg/L and 1633 lbs/day and a 30-day average of 110 mg/L and 841 lbs/day.
- B. Emerald investigates new production methods and technologies that generate less ammonia and nitrification inhibitors in Emerald's discharge. The nitrification inhibitors such as MBT are the chief cause of inhibiting nitrification in the treatment system which allows for ammonia to discharge.
- C. Emerald investigates new treatment technologies and evaluates implementation of new and existing technology based on current plant conditions.
- D. Emerald investigates and submits a study to the Illinois EPA evaluating the use of granular activated carbon to treat the PC tank waste water before it combines with non-PC tank waste water to determine if this treatment alternative effectively removes inhibitors, including MBT, which would then allow for biological treatment. The study shall include a technical feasibility evaluation and an economic feasibility analysis.
- E. Emerald investigates and submits a study to Illinois EPA evaluating the technical feasibility and the economic feasibility of a spray irrigation program. The feasibility determinations will include an evaluation of compliance with the applicable design standards for slow rate land application of treated wastewaters (35 Ill. Adm. Code: Subtitle C, Part 372).
- F. Emerald investigates and submits a study to Illinois EPA evaluating the addition of water from the Illinois River to the wastewater in order to determine the potential for subsequent single-stage nitrification in light of the potential dilution. The study would include a technical feasibility evaluation and an economic feasibility analysis.
- G. Emerald prepares and submits to the Illinois EPA annual reports summarizing its activities to comply with above stated recommendations.
- H. If, upon the review of the annual reports required by Paragraph G above, the Illinois EPA determines that new technology to treat ammonia is available that is economically reasonable and technically feasible, the Illinois EPA may petition the Board to modify the relief granted by the Board.

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AGREED MOTION TO MODIFY OR RESCIND BOARD ORDER

NOW COME the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (“Illinois EPA” or “Agency”), and EMERALD PERFORMANCE MATERIALS, LLC (“Emerald”), by and through their counsel, and hereby submit their agreed motion that the Pollution Control Board (“Board”) decide this matter without a hearing. In support thereof, the following statements are made:

1. Emerald filed its Petition for Adjusted Standard on August 28, 2012 which included a request that a hearing be held.
2. On November 1, 2012 the Board accepted the Petition for Adjusted Standard and authorized that a hearing be held.
3. Emerald and the Illinois EPA have held extensive discussions regarding the requested relief and have provided information in response to Hearing Officer Orders. As a result the Parties believe that the Board can and should rule on the requested relief based upon the information presented in the pleadings, the responses to the Hearing Officer Orders and the previous record in AS 2002-05 and have reached an agreement to that effect that is presented in the companion AGREED RECOMMENDED CONDITIONS filed today.
4. Based upon this agreement Emerald withdraws its request that a hearing be held.

WHEREFORE, for the reasons stated herein, Illinois EPA and Emerald respectfully request that the Pollution Control Board modify their November 1, 2012 Order accepting the Adjusted Standard Petition and decide this matter without holding a hearing based upon the information presented as set forth above and, should the Board determine that the requested relief should be granted, impose the agreed upon conditions set forth in the AGREED RECOMMENDED CONDITIONS.

EMERALD PERFORMANCE
MATERIALS, LLC

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CERTIFICATE OF SERVICE

Joanne M. Olson, Assistant Counsel for the Illinois EPA, herein certifies that she has served a copy of the foregoing NOTICE OF FILING, AGREED RECOMMENDED CONDITIONS, AND AGREED MOTION TO MODIFY OR RESCIND BOARD ORDER upon:

Roy M. Harsch
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Kellie Staab
1550 County Road 1450 N
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by mailing a true copy thereof in an envelope duly addressed bearing proper first class postage and deposited in the United States mail at Springfield, Illinois on June 17, 2014.

s/Joanne Olson

Joanne M. Olson
Assistant Counsel