

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

IN THE MATTER OF:	)	
	)	AS 19-002
Petition of Emerald Polymer	)	
Additives, LLC for an Adjusted	)	(Adjusted Standard)
Standard from 35 Ill. Adm. Code	)	
304.122(b)	)	

To: See attached service list.

**NOTICE OF ELECTRONIC FILING**

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board ILLINOIS EPA'S PRE-HEARING DOCUMENT, for the above-captioned proceeding, a copy of which is herewith served upon you.

Respectfully submitted,

Dated: December 30, 2019

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY,

Rex L. Gradeless, #6303411  
Division of Legal Counsel  
Illinois Environmental Protection Agency  
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Respondent,

BY: /s/Rex L. Gradeless  
Rex L. Gradeless

**THIS FILING IS SUBMITTED ELECTRONICALLY**

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Springfield, Illinois 62794-9274

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

IN THE MATTER OF: )  
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Petition of Emerald Polymer )  
Additives, LLC for an Adjusted ) (Adjusted Standard)  
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**ILLINOIS EPA'S PRE-HEARING DOCUMENT**

NOW COMES the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ("Illinois EPA"), by and through its counsel, and in response to the Hearing Officer's November 25, 2019, order, states as follows:

**BACKGROUND**

1. On July 19, 2019, the Illinois EPA filed its Recommendation to Deny Petitioner's Request for an Adjusted Standard for the above-reference case.
2. The burden of proof in an adjusted standard proceeding falls on the petitioner. 35 Ill. Adm. Code 104.426.
3. On November 25, 2019, the hearing officer entered an order requesting the following documents be filed with the Illinois Pollution Control Board ("Board"): technical testimony; technical exhibits not in the record; and proposed amendments to the existing adjusted standard.

**Technical Testimony - Direct Examination**

While the Illinois EPA does not have a burden of proof in an adjusted standard case, the Illinois EPA may provide witnesses to testify about the recommendation it filed on July 19, 2019. As disclosed to Petitioner during discovery, each of the following witnesses may be called by the Illinois EPA and may testify on subjects related to and including the subjects raised Illinois EPA's recommendation. Specifically, the subject matter of the testimony will relate to each witnesses'

experience and job titles below as follows:

Scott Twait, Manager, Water Quality Standards, Water Pollution Control, Bureau of Water  
Gary Bingenheimer, Manager, Infrastructure Financial, Assistance Section, Bureau of Water  
Darin LeCrone, Manager, Industrial Permits, Water Pollution Control, Bureau of Water  
Mark Liska, Environmental Protection Engineer, Industrial Permits, Bureau of Water  
Brian Koch<sup>1</sup>, Illinois Department of Public Health, Division of Environmental Health

Additionally, the Illinois EPA may provide the evidence depositions of Amy Harding, Chris Wrobel, and Edward Gotch. Further, the Illinois EPA may call Mark Winters, Galen Hathcock, and Houston Flippin in person to further support its recommendation. All of these witnesses have been deposed in this case, and the Illinois EPA does not expect these witnesses to provide testimony contrary to their depositions during direct examination.

#### Technical Testimony - Cross Examination

The Illinois EPA may use technical testimony from Petitioner's witnesses during cross examination. Illinois EPA proposes the parties agree to waive the scope of cross examination during Petitioner's case so that this can be achieved more efficiently. The Illinois EPA extends that offer with respect to its witnesses as well.

#### Technical Exhibits Not in the Record – Direct Examination

Apart from the documents already submitted and attached to the Illinois EPA's recommendation to deny the Petitioner's petition for an adjusted standard, the Illinois EPA may offer exhibits during hearing produced during discovery. To date, these exhibits may include, but are not limited to, the following:

- 1) Project description chart, IEPA Bates #1-4;
- 2) Akzo Nobel Surface Chemistry, LLC consolidated permit application, IEPA Bates #1676-1699;
- 3) June 15, 2015, Twait WQBEL memorandum, IEPA Bates #1952-1955
- 4) October 23, 2012 and June 16, 2015, Koch toxicity memorandums, IEPA Bates #1948-1951, 1956-1958;

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<sup>1</sup> Formerly Water Quality Standards Unit, Illinois EPA's Bureau of Water

- 5) Depositions of Amy Harding, Chris Worbel, and Edward Gotch<sup>2</sup>;
- 6) Petitioner's statement of operations and balance sheet, EP003467-68<sup>3</sup>.
- 7) 2017 NACWA Financial Survey – Full Survey Report and Raw Data, Aug 2018<sup>4</sup>
- 8) Petitioner's Discharge Monitoring Reports (“DMRs”), April 2015 – 2019
- 9) Additional financial information not yet produced to Illinois EPA.

Technical Exhibits Not in the Record – Cross Examination or Rebuttal

The Illinois EPA reserves the right to use any document in cross examination or rebuttal that has been produced in discovery. Given the Illinois EPA does not know what evidence, if any, Petitioner will present at the hearing, the Illinois EPA must reserve the right to provide exhibits for cross examination and/or rebuttal testimony.

Illinois EPA's Proposed Amendments to the Existing Adjusted Standard

For the reasons stated in Illinois EPA's recommendation, the Illinois EPA recommends the Board deny Petitioner's request and, because it will fail to meet its burden of proof, hold Petitioner to the current total ammonia nitrogen effluent standard found in 35 Ill. Adm. Code 304.122(b) and (c) as follows:

“Sources discharging to any of the above waters and whose untreated waste load cannot be computed on a population equivalent basis comparable to that used for municipal waste treatment plants and whose total ammonia nitrogen as N discharge exceeds 45.4 kg/day (100 pounds per day) shall not discharge an effluent of more than 3.0 mg/L of total ammonia nitrogen as N.” 35 Ill. Adm. Code 304.122(b)

“In addition to the effluent standards set forth in subsections (a) and (b) of this Section, all sources are subject to Section 304.105.” 35 Ill. Adm. Code 304.122(c)

In the event the Board decides to grant Petitioner's requested adjusted standard over the

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<sup>2</sup> These exhibits are not attached to this filing because the Illinois EPA believes Petitioner desires them filed under seal. Illinois EPA has no objection to that request and will send these documents to the hearing officer for review.

<sup>3</sup> These exhibits are not attached to this filing because the Illinois EPA believes Petitioner desires them filed under seal. Illinois EPA has no objection to that request and will send these documents to the hearing officer for review.

<sup>4</sup> These exhibits are not attached because Illinois EPA believes there may be copyright issues posting this document to the PCB website. Thus, Illinois EPA will send these documents to the hearing officer for review.

Illinois EPA's recommendation, the Illinois EPA recommends the following:

1. Due to conceded changes within Petitioner's processes in the fall of 2018, and taking the highest values within Petitioner's DMRs between September 2018 and May 2019, any adjusted standard granted by the Board should not exceed a daily maximum of 110 milligrams per liter (mg/L) and no more than 553 pounds per day ("lbs/day") and Petitioner's 30-day average should not exceed 89.9 mg/L and no more than 475 lbs/day.<sup>5</sup> Notably, Petitioner's averages are much lower than these maximums. Therefore, the Board should consider that fact when evaluating the appropriateness of any adjusted standard.

2. Any adjusted standard granted by the Board should not be effective any longer than 5 years after the Board's order because a sunset provision "is appropriate and a valid means to inspire Emerald to attempt to comply with the pollution regulations." See *Emerald Performance Materials v. IPCB and IEPA*, 2016 IL App (3d) 150526 (¶41).

3. Incentives for compliance should be the hallmark of any adjusted standard granted by the Board. Any interim standard should require the Petitioner to always provide, and always seek to provide, incremental reductions in ammonia even when it may fail to meet the prescribed 3 mg/L limit in Section 304.122. Therefore, any interim adjusted standard granted by the Board should also be subject to all the following conditions:

a. Within 90 days of the Board's order, Petitioner must quantify the amount of ammonia attributable to Mexichem entering Petitioner's treatment plant and provide that information to the Agency.

b. Petitioner must provide the Agency with 1) its financial balance sheets each

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<sup>5</sup> This recommendation serves only as a ceiling for any adjusted standard granted by the Board. This should not be construed as the Agency changing its previous position that a lower standard is more appropriate to compel the Petitioner to act. See Agency Recommendation in AS 13-02.

fiscal year following the Board's order, 2) all annual shareholder reports for each fiscal year following the Board's order; 3) a breakdown of Petitioner's assets and liabilities for each fiscal year following the Board's order; 4) a breakdown of Petitioner's expenses, including operation and maintenance costs for each fiscal year following the Board's order, and the Petitioner's projected annual operation and maintenance costs for each fiscal year following the Board's order.

c. Within 90 days of the Board's order, given the effluent from Petitioner's secondary clarifiers contain essentially no MBT and can be nitrified, Petitioner must investigate and provide to the Agency how much treatment capacity it needs prior to and following the secondary clarifiers to complete nitrification. Further, Petitioner must reconfigure its current treatment system (e.g. with low cost economically reasonable piping) and bioreactor tanks to treat the effluent after the secondary clarifier to achieve nitrification.

d. Within 180 days of the Board's order, Petitioner must investigate and quantify the amount of ammonia and MBT coming into the PVC Tank, the C-18 Tank, and the PC Tank and submit this data to the Agency. Petitioner must propose methods to minimize these parameters from each of these places within one year along with a schedule to implement the proposed changes.

e. On or before July 19, 2020, Petitioner must evaluate ammonia and water reductions attributable to Mexichem entering Petitioner's treatment plant and provide that information to the Agency.

f. On or before July 19, 2020, Petitioner must evaluate ammonia and water reductions attributable to Petitioner entering Petitioner's treatment plant and provide that

information to the Agency.

g. On or before July 19, 2021, Petitioner must submit results of a spray irrigation study to the Agency. Before conducting the study, the Petitioner must submit a study proposal to, and receive approval from, the Agency. The spray irrigation study, at a minimum, must thoroughly analyze 1) when the Petitioner can spray irrigate, 2) the suitability of Petitioner's effluent on vegetation, 3) the costs of implementing a spray irrigation program, 4) the quantity of land available to accept spray irrigation, and 5) the agronomic benefits of the spray irrigation program. If found feasible, Petitioner must submit a state operating permit application to the Agency for conducting spray irrigation.

h. Given Petitioner currently only operates one of its four bioreactors and is currently renovating one bioreactor, Petitioner must 1) repair, operate, and maintain no less than two of its bioreactors within 18 months of the Board's order, 2) repair, operate, and maintain no less than three of its bioreactors within 3 years of the Board's order, and 3) repair, operate, and maintain all four of its bioreactors within 4 years of the Board's order. Petitioner must annually provide the Agency with its number of operating bioreactor tanks and its tankage capacity for each tank.

i. Petitioner must provide the Agency with actual annual capital improvement costs for its bioreactors each fiscal year following the Board's order.

j. Petitioner must continue to investigate improvements to the reaction processes of all its processes. Petitioner must provide the Agency with an annual report detailing any improvements made to its reaction processes and detail any plans to improve the reaction processes. The annual report must include capital costs or expected capital costs for improvements to these processes.



k. Petitioner must continue to maintain the high-rate, multi-port diffuser for the discharge into the Illinois River to achieve an effluent dispersion necessary to meet the applicable ammonia nitrogen water quality standards at the edge of the mixing zone and zone of initial dilution.

l. Petitioner must, at a minimum, maintain the following ammonia reduction measures: maintenance of the BBTS Wet Scrubber with a dust collector; and maintain upgrades to the instrumentation of the acetonitrile recovery column.

m. Petitioner must annually investigate new production methods and technologies that generate less ammonia and nitrification inhibitors in Petitioner's discharge. Where practicable, Petitioner must substitute current production methods or technologies with new ones so long as the substitution generates less ammonia in Petitioner's discharge.

n. Petitioner must annually investigate new treatment methods and technologies prior to or following the secondary clarifier, including but not limited to Algaewheel® technology, and annually evaluate implementation of new and existing treatment technology based on current plant conditions. Where practicable, Petitioner must substitute current treatment methods or technologies with new ones so long as the substitution generates less ammonia in Petitioner's discharge.

o. Petitioner must conduct quarterly monitoring of ammonia nitrogen in the Illinois River (within no more than 10 feet from the edge of the mixing zone (300 feet from the diffuser)) to demonstrate compliance with the ammonia water quality standards in accordance with 35 Ill. Adm. Code 302.212.

p. Petitioner must prepare and submit to the Agency annual reports, including

an executive summary, summarizing all activities to comply with paragraphs 3(a) through 3(o).

q. Based upon review of the annual reports required by condition 3(p), the Agency may petition the Board to modify the relief granted by the Board's order.

r. Petitioner must operate in full compliance with the Clean Water Act, its National Pollutant Discharge Elimination System permit, the Board's water pollution regulations, and any other applicable requirement.

Amended Recommendation

The Illinois EPA may amend its recommendation at any time, even if the Petitioner has not amended its petition, if the amendment does not cause material prejudice. The amendment must be in writing and filed with the Board unless made orally at hearing. 35 Ill. Adm. Code 104.418 The Agency reserves the right to modify its above Recommendation at any time as new information becomes available.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY,

Respondent,

BY: /s/Rex L. Gradeless  
Rex L. Gradeless

Dated: December 30, 2019

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**THIS FILING IS SUBMITTED ELECTRONICALLY**

**CERTIFICATE OF SERVICE**

I, the undersigned, on affirmation state the following:

That I have served the attached **ILLINOIS EPA'S PRE-HEARING DOCUMENT** by e-mail upon Thomas W. Dimond at the e-mail address of [Thomas.Dimond@icemiller.com](mailto:Thomas.Dimond@icemiller.com), upon Kelsey Weyhing at the e-mail address of [Kelsey.Weyhing@icemiller.com](mailto:Kelsey.Weyhing@icemiller.com), upon Don Brown at the e-mail address of [don.brown@illinois.gov](mailto:don.brown@illinois.gov) upon Carol Webb at the e-mail address of [Carol.Webb@illinois.gov](mailto:Carol.Webb@illinois.gov).

That I have served the attached **ILLINOIS EPA'S PRE-HEARING DOCUMENT** upon any other persons, if any, listed on the Service List, by placing a true copy in an envelope duly address bearing proper first class postage in the United States mail at Springfield, Illinois on December 30, 2019.

That my e-mail address is [Rex.Gradeless@Illinois.gov](mailto:Rex.Gradeless@Illinois.gov).

That the number of pages in the e-mail transmission is eleven (11).

That the e-mail transmission took place before 4:30 p.m. on the date of December 30, 2019.

/s/Rex L. Gradeless  
December 30, 2019