

ILLINOIS POLLUTION CONTROL BOARD  
December 1, 2016

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) )

OPINION AND ORDER OF THE BOARD (by J.D. O’Leary):

Emerald Performance Materials, LLC (Emerald) requested that the Board renew an adjusted standard previously granted to its chemical manufacturing facility located in Marshall County. *See* Petition of Noveon, Inc. for an Adjusted Standard from 35 Ill. Adm. Code 304.122, AS 02-5 (Nov. 4, 2004). Emerald sought to renew an adjustment from the total ammonia nitrogen as nitrogen effluent standard for discharge from the facility’s wastewater treatment plant. *See* 35 Ill. Adm. Code 304.122(b). On April 16, 2015, the Board granted Emerald’s petition subject to several conditions. Emerald appealed all or a portion of three conditions: agricultural best management practices (BMPs) to reduce of nitrogen loading, ammonia reduction as a factor in employee gain sharing, and a five-year sunset. On September 2, 2016, the Appellate Court reversed the Board’s decision in part, affirmed it in part, and remanded the case to the Board. On October 25, 2016, the Appellate Court Third District issued its mandate. Emerald Performance Materials v. IPCB and IEPA, 2016 IL App (3d) 150526.

In its Order, the Appellate Court concluded that condition 2(h) regarding implementation of agricultural BMPs exceeded the Board’s authority and lacked support in the record. Emerald Performance Materials v. IPCB and IEPA, 2016 IL App (3d) 150526 (¶¶26-34). The Court also found that the portion of condition 2(b) concerning ammonia reduction as a metric in employee gain sharing exceeded the Board’s authority and lacked support in the record. *Id.* (¶¶35-37). However, the Court affirmed the portion of condition 1 establishing a five-year sunset, stating that it “is appropriate and a valid means to inspire Emerald to attempt to comply with the pollution regulations.” *Id.* (¶41).

Consistent with the Appellate Court’s order, the Board below strikes the conditions on which it was reversed and replaces its April 16, 2015 order with today’s order.

The Board directs its Clerk to file a copy of this opinion and order with the Clerk of the Third District Appellate Court.

**ORDER**

1. Pursuant to Section 28.1 of the Environmental Protection Act (415 ILCS 5/28.1 (2012)), the Board grants Emerald Performance Materials, LLC (Emerald) an adjusted standard from 35 Ill. Adm. Code 304.122(b). Under this adjusted standard, the total ammonia nitrogen effluent standard

at 35 Ill. Adm. Code 304.122(b) does not apply to the discharge of effluent into the Illinois River from the Emerald facility at 1550 County Road 1450 N. in Henry, Marshall County. Instead, Emerald's effluent for total ammonia nitrogen must comply with a daily maximum of 140 milligrams per liter (mg/L) and 1633 pounds per day (lbs/day), as well as a 30-day average of 110 mg/L and 841 lbs/day. This adjusted standard takes effect on April 16, 2015, and expires on April 16, 2020.

2. The adjusted standard granted in paragraph 1 of this order is subject to the following conditions:
  - a. Emerald 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 (ZID).
  - b. Emerald must maintain the following ammonia reduction measures: replacement of the BBTS Wet Scrubber with a dust collector; and upgrade of instrumentation for the acetonitrile recovery column.
  - c. Emerald must investigate 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.
  - d. Emerald must investigate new treatment technologies and evaluate implementation of new and existing treatment technology based on current plant conditions.
  - e. By April 16, 2018, Emerald must investigate and submit to the Illinois Environmental Protection Agency (Agency) the following studies:
    - i) A study evaluating the use of granulated activated carbon to treat the polymer chemicals tank waste water before it combines with non-polymer chemicals tank waste water to determine if this treatment alternative effectively removes inhibitors, including MBT, which would then allow for biological treatment. The study must include a technical feasibility evaluation and an economic reasonableness analysis;

- ii) A study evaluating the technical feasibility and the economic reasonableness of a spray irrigation program. The studies must include an evaluation of compliance with the applicable design standards for slow rate land application of treated wastewaters (35 Ill. Adm. Code 372); and
  - iii) A study evaluating the addition of water from the Illinois River to the wastewater to determine the potential for subsequent single-stage nitrification in light of the potential dilution. The study must include a technical feasibility evaluation and an economic reasonableness analysis.
- f. Emerald must prepare and submit to the Agency annual reports summarizing its activities to comply with paragraphs 2(c) through 2(e).
  - g. If, upon review of the annual reports required by condition 2(f), the Agency determines that new technology to treat ammonia is available that is economically reasonable and technically feasible, the Agency may petition the Board to modify the relief granted by this order.
  - h. Emerald 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.

IT IS SO ORDERED.

Section 41(a) of the Environmental Protection Act provides that final Board orders may be appealed directly to the Illinois Appellate Court within 35 days after the Board serves the order. 415 ILCS 5/41(a) (2014); *see also* 35 Ill. Adm. Code 101.300(d)(2), 101.906, 102.706. Illinois Supreme Court Rule 335 establishes filing requirements that apply when the Illinois Appellate Court, by statute, directly reviews administrative orders. 172 Ill. 2d R. 335. The Board's procedural rules provide that motion for the Board to reconsider or modify its final orders may be filed with the Board within 35 days after the order is received. 35 Ill. Adm. Code 101.520; *see also* 35 Ill. Adm. Code 101.902, 102.700, 102.702.

I, John T. Therriault, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on December 1, 2016, by a vote of 5-0.




---

John T. Therriault, Clerk  
Illinois Pollution Control Board