Exhibit 1

ILLINOIS POLLUTION CONTROL BOARD
November 4, 2004

IN THE MATTER OF:	)	
	)	
PETITION OF NOVEON, INC. FOR AN	)	AS 02-5
ADJUSTED STANDARD FROM 35 ILL.	)	(Adjusted Standard)
ADM. CODE 304.122	)	

RICHARD J. KISSEL, MARK LATHAM, SHEILA H. DEELY, GARDNER, CARTON & DOUGLAS, APPPEARED ON BEHALF OF PETITIONER; and

DEBORAH J. WILLIAMS APPEARED ON BEHALF OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.

OPINION AND ORDER OF THE BOARD (by N.J. Melas):

Noveon, Inc. (Noveon) is a specialty chemicals manufacturer, and requests relief from the Board's ammonia nitrogen effluent limits as those limits pertain to Noveon's discharge of wastewater into the Illinois River. On May 22, 2002, Noveon filed a petition for an adjusted standard from 35 Ill. Adm. Code 304.122. Noveon's facility is located at 1550 County Road, 850 North in Henry, northwestern Marshall County. In the petition, Noveon requested a hearing, which was held February 17, 18, and 19, 2004. On June 18, 2003, the Illinois Environmental Protection Agency (Agency) filed a recommendation that the Board deny Noveon's petition.

This petition relates to Noveon's National Pollutant Discharge Elimination System (NPDES) permit appeal recently decided by the Board, docketed as Noveon, Inc. v. IEPA, PCB 91-17. In the permit appeal, Noveon contested a condition imposed by the Agency requiring Noveon to meet the ammonia effluent limit found at Section 304.122(b) of the Board's rules. 35 Ill. Adm. Code 304.122(b). Noveon states it filed this petition for an adjusted standard in the alternative to the NPDES permit appeal. Noveon requested that if the Board determined that the Agency properly applied Section 304.122(b), the Board grant Noveon an adjusted standard from that section. Also assuming Section 304.122(b) applies, Noveon requests that the Board grant Noveon a mixing zone calculated in accordance with federal and state regulations. Pet. at 2.

On September 16, 2004, the Board issued a final opinion and order affirming the Agency's issuance of Noveon's NPDES permit, finding that the Agency properly applied Section 304.122(b) to Noveon's effluent.

Based on the record before it, the Board finds that Noveon has provided sufficient justification for each of the Section 28.1 factors. The Board grants Noveon's petition for an adjusted standard from the Board's ammonia effluent limitation subject to conditions outlined in this order.

ADJUSTED STANDARD PROCEDURE

The Environmental Protection Act (Act) (415 ILCS 5/1 *et seq.* (2002)) and Board rules provide that a petitioner may request, and the Board may grant, an environmental standard that is different from the generally applicable standard that would otherwise apply to the petitioner and the regulated community. *See* 35 Ill. Adm. Code 104.400(a). This is called an adjusted standard. The general procedures that govern an adjusted standard proceeding are found at Section 28.1 of the Act and Part 104, Subpart D of the Board's procedural rules. 415 ILCS 5/28.1 (2002); 35 Ill. Adm. Code 104.400 *et al.*

The Board rules for the content requirements of the petition and Agency recommendation are found at Section 104.406 and Section 104.416, respectively. 35 Ill. Adm. Code 104.406, 104.416.

PROCEDURAL BACKGROUND

On May 22, 2002, Noveon filed this petition (Pet.), with the Board for an adjusted standard from the ammonia effluent limitations. On May 29, 2002, Noveon published notice of the petition in the *Henry News Republican*, and filed the certificate of publication with the Board on June 11, 2002. The Agency filed its recommendation (Rec.) that the Board deny Noveon's requested relief on June 18, 2003.

On February 17, 2004, Hearing Officer Bradley Halloran conducted a hearing in this matter at 122 North Prairie Street, Lacon, Marshall County. Six witnesses testified on behalf of the petitioner: Mr. Michael Corn of AquAeTer, Inc.; Mr. Houston Flippin, consultant from the firm of Brown and Caldwell; and Mr. William Goodfellow of AE Engineering; Ms. Linda Shaw, an employee of Noveon, and Mr. Guy Davids, a recent plant manager at the Henry facility. Mr. Robert Mosher and Mr. Richard Pinneo testified on behalf of the respondent. Hearing Officer Halloran found all witnesses credible.

At hearing, Noveon renewed a motion to enter the transcript of a related matter, a permit appeal filed by Noveon docketed as PCB 91-17, into the record. In the alternative, Noveon moved to enter the testimony of the witnesses from PCB 91-17 into this record.[1] 2004 Tr. at 15.

The Board has received six written public comments regarding Noveon's request for relief. Mr. Doug Hermann presented an oral public comment at hearing on behalf of Illinois River Holdings (IRH), and later filed the section of the hearing transcript containing his oral comment with the Board. Mr. Hermann stated that IRH is concerned about aquatic toxicity problems caused by Noveon in the IRH property, located 500 feet downstream of the existing Noveon diffuser. Mr. Hermann stated that IRH is planning a port development on the Illinois River that will ship sand and gravel as well as various other commodities. 2004 Tr. at 501. Mr. Brian Maubach and Mr. John Maubach, both landowners in Henry, submitted the second and third public comments, respectively, in opposition of the adjusted standard. The fourth public comment was submitted by Mr. Thomas Wilkinson, who is in favor of the adjusted standard. Mr. Wilkinson stated he worked at the plant as a pipefitter and mechanical contractor for 32

[1] The Board cites to the transcript of the hearings held in this matter from February 17, 2004 through February 19, 2004, collectively, as "2004 Tr. at __."

years and believes that the Noveon employees are environmentally responsible. Mr. Thomas Newby, the Henry Plant Controller, submitted the fifth public comment in favor of the adjusted standard. Finally, the sixth public comment, favoring the adjusted standard, was filed by Mr. Stephen Saunders, engineer and Operations Manager at the Henry Plant.

In addition, Mr. Richard Janssen, a former B.F. Goodrich employee from 1970 to 1997, gave an oral public comment at hearing opposing the adjusted standard. Mr. Janssen stated that in his opinion, B.F. Goodrich became progressively more concerned about increasing production than treating wastewater at the Henry Plant in the 1980s. 2004 Tr. at 257-58.

Noveon filed a post-hearing reply memorandum on April 29, 2004 (Nov. Memo). On June 1, 2004, the Agency also filed a post-hearing memorandum (Ag. Memo). Noveon replied on July 14, 2004 (Nov. Reply).

As discussed above, on September 16, 2004, the Board issued a final opinion and order in a related matter, PCB 91-17, affirming the Agency's issuance of Noveon's NPDES permit. Included in Noveon's permit is Condition 4, which limits Noveon's ammonia effluent in accordance with Section 304.122(b) of the Board's effluent limits.

PRELIMINARY MATTER

Before hearing, Noveon moved the Board to incorporate the entire transcript of hearings and exhibits in the related permit appeal, PCB 91-17, into this record. The Agency objected to Noveon's motion and Hearing Officer Halloran denied the motion. At hearing, Noveon renewed its motion to incorporate the transcript, and submitted a redacted version of the transcript of 1991 hearings, removing material that Noveon believed was unrelated to the application of Section 304.122 to Noveon. Noveon argued that the testimony from the 1990 permit appeal hearing regarding ammonia nitrogen would help the Board in deciding this matter. 2004 Tr. at 324. The Agency objected to the motion stating that the motion was untimely and that the material submitted would not aid the Board in making its decision. 2004 Tr. at 325. The Agency notes that while Noveon claims it removed the unrelated material from the 1991 transcript, the material submitted and accepted as an offer of proof contains 131 pages of the 160 total pages of the transcript and all of the exhibits. 2004 Tr. at 324.

Hearing Officer Halloran denied Noveon's renewed motion, but stated he would accept the transcript as an offer of proof. 2004 Tr. at 326. At the end of hearing, Noveon submitted the *entire* transcript, including the 2004 hearing testimony, and it was accepted as an offer of proof. 2004 Tr. at 508-09; 2004 Tr. Exh. 38.

In its post-hearing memorandum, Noveon moves the Board to overturn the ruling by hearing officer Halloran. According to Noveon, Section 101.306(a) sets forth a lenient standard for incorporating a transcript from another Board proceeding into the record of another proceeding. 35 Ill. Adm. Code 101.306(a). Noveon further argues that the burden is more stringent in an NPDES permit appeal than for an adjusted standard, so therefore, the Agency can claim no prejudice from incorporating the transcripts from PCB 91-17 into this proceeding. Ag. Memo at 12.

The Agency opposes Noveon's motion, contending that portions of the testimony are not relevant and other portions were based on information not available at the time Noveon's NPDES permit was issued. Ag. Memo at 12. For these reasons, the Agency urges the Board to affirm the hearing officer's ruling. Ag. Memo at 13.

The Board reverses Hearing Officer Halloran's ruling and accepts the transcript in PCB 91-17 as evidence. The Board finds that much of the transcript in PCB 91-17 is relevant because at issue in both the permit appeal and adjusted standard are the same facility, discharge, ammonia effluent limits, and NPDES permit. Accordingly, the Board accepts the offer of proof, Hearing Exhibit 38, as evidence in this adjusted standard proceeding.[2]

FACTUAL BACKGROUND

The Facility

The Noveon Henry Plant is located on the West Branch of the Illinois River north of the City of Henry, at 1550 County Road, 850 N. in Northwestern Marshall County. Until 1993, the facility was owned and operated by B.F. Goodrich. Pet. at 9. When the NPDES permit was issued, the Henry Plant had two manufacturing units: (1) a specialty chemicals manufacturing unit, which began manufacturing rubber chemicals in 1958; and (2) a polyvinyl chloride (PVC) resins unit that began operating in 1965. The resins unit, divested in 1993, is now known as PolyOne Corporation, and the specialty chemicals unit, sold in February 2001, became Noveon, Inc. *Id.* At the specialty chemicals unit, Noveon produces two general kinds of products: (1) rubber accelerators that are used in the vulcanizing process of the tire-curing process for the tire industry; and (2) plastic and rubber antioxidants, which are additives used to prevent the degradation of the material from light and heat in products such as rubber baby bottle nipples. The Henry Plant is classified as industrial and currently employs 75 people. 2004 Tr. at 22.

Wastewater Treatment

Noveon operates the wastewater treatment facilities for both Noveon and PolyOne. Ag. Memo. at 3. The facility treats discharges from production processes, the cooling tower, boiler blowdown, and well water treatment, as well as stormwater. Ag. Memo at 4. The combined process and non-process water discharged per day from the two facilities is approximately 800,000 gallons. Pet. at 9.

Noveon treats wastewater in several steps. The first step involves equalization of all influent wastewaters. Pet. at 12; Nov. Memo at 5. All wastewaters from Noveon, excluding those from rubber accelerator (Cure-Rite 18 or C-18) manufacturing, discharge directly into equalization tank (PC Tank). The wastewater from C-18 manufacturing is pretreated prior to discharge into a separate equalization tank (C18 Tank). Similarly, all wastewaters from PolyOne production areas, except for waste stream from 213 manufacturing, discharge into an equalization tank (PVC Tank). *Id.* Wastewater from 213 manufacturing is pretreated prior to

[2] The Board cites to the transcript of hearings held in the permit appeal, PCB 91-17, held on November 19, 1991 and December 10, 1991, collectively, as "1991 Tr. at __."

discharge into the same equalization tank. The PolyOne equalization tank also receives backwash water from sand filter, filtrate from sludge dewatering, and, potentially primary sludge from primary clarifier. *Id.* at 5-6; 2004 Tr. at 36, 37. The wastewater from all equalization tanks is combined in a pH adjustment tank prior to primary treatment. In addition to these wastestreams, the non-process wastewater, including non-contact cooling water, stormwater, water from the boilerhouse demineralizer and water treatment works is discharged to a holding tank. The non-process water is then either sent to primary treatment or pumped directly to sand filter to remove solids prior to discharge through the outfall.

Primary treatment involves the removal of settleable solids from the combined pH adjusted wastewater. The combined wastewater is sent to primary clarifier after adding coagulant and polymer. The solids removed during primary treatment are dewatered and sent to a landfill. The wastewater from the primary clarifier is pumped to the four aeration basins for secondary activated sludge treatment, which involves the removal organic compounds. The effluent from the secondary clarifier is sent through a sand filter prior to discharge through the outfall. This final treatment step is termed as tertiary treatment. Nov. Memo at 5; Pet. Exh. 7, at 5, 6.

Discharge from the City of Henry's publicly owned treatment works combines with Noveon's effluent and is discharged through Noveon's outfall into the Illinois River pursuant to NPDES Permit No. IL0001392. Pet. at 14. Noveon's outfall (Outfall 001) is located between mile 198 and 199 on the Illinois River. Ag. Memo at 5. The effluent is discharged through an 18-inch, single-port submerged diffuser into the main channel of the Illinois River. Noveon states that the Henry Plant sits on a bluff, 80-90 feet above the Illinois River. Nov. Memo at 9; 2004 Tr. at 189. As a result, Noveon asserts the discharge enters the river with a velocity that causes rapid and immediate mixing. Pet. at 14.

Modifications

Noveon's wastewater treatment plant was upgraded in 1987 by adding two above ground biotreators, two above ground equalization tanks, and a tertiary filtration system. Pet. at 10. Noveon states it added a third biotreator in 1989 and a fourth in 1998. *Id.* In 1997, Noveon increased aeration tank capacity by 100 percent, or one million gallons, to accommodate expanded production. 2004 Tr. at 57. Noveon states it has attempted to reduce ammonia in its discharge through both source reduction and end-of-pipe discharge controls. 2004 Tr. at 41.

In 2000, Noveon modified the east biotreator by converting it to a temporary air stripper using its normal air diffusion system and also by the installation of a floating aerator in the Noveon waste tank or the PC tank. 2004 Tr. at 40.

Ammonia Discharge

PolyOne discharges a small amount of ammonia into the wastewater system in the form of ammonium laurate, a dispersing agent. Nov. Memo at 6. Noveon's manufacturing processes do not discharge any significant ammonia nitrogen directly to the wastewater treatment system. Pet. at 15. However, Noveon processes discharge organic nitrogen compounds tertiary butyl

amine, mercaptobenzothiazole (MBT) and morpholine. Nov. Memo at 6. Noveon has determined that ammonia is generated by the degradation of organic nitrogen compounds in the activated sludge treatment process. Nov. Memo at 8. Further, a significant amount of ammonia nitrogen released during the wastewater treatment process remains in the effluent because ammonia is not nitrified during the treatment process. According to Noveon, although the Henry Plant is constructed similarly to municipal wastewater treatment plants to nitrify ammonia, the plant does not achieve nitrification. Nov. Memo at 6-7.

The parties agree that nitrification does not occur at the Henry Plant for several reasons, including: the inhibition of growth of nitrifying bacteria by specific inhibitory compounds in Noveon's wastestream (2004 Tr. at 448), insufficient oxygen due to poor oxygen transfer rates, and the need for additional alkalinity to be chemically added (2004 Tr. at 433, 447).

The parties agree that Noveon's discharge of ammonia nitrogen to the Illinois River exceeds 100 pounds per day. 2004 Tr. Exh. 38 at 68. Noveon's 1981 NPDES permit application indicated that the facility's maximum daily discharge of ammonia nitrogen was 34 milligrams per liter (mg/L). 2004 Tr. Exh. 38, Exh. 3, 4. Then in 1989, Noveon's permit application indicated a maximum daily discharge of 230 mg/L ammonia, or 1,933 lbs/day, in the effluent. 2004 Tr. Exh. 38, Exh. 6, V-1. Noveon's renewed NPDES permit, issued by the Agency on December 28, 1990, indicated that the facility discharged approximately 80 to 120 mg/L ammonia. 2004 Tr. Exh. 38; Exh. 9. In a memo regarding ammonia-nitrogen treatment alternatives at the Henry Plant, Mr. Houston Flippin estimated the average ammonia effluent value at 909 lbs/day, derived from wastestream data gathered in 1995 and effluent data gathered in 1999 through 2000. Pet. Exh. 7.

STANDARD OF REVIEW/ BURDEN OF PROOF

The regulation of general applicability at 35 Ill. Adm. Code 215.301 does not specify a level of justification for an adjusted standard. Pet. at 11; Rec. at 7. Therefore, pursuant to Section 28.1(c) of the Act, the burden of proof is on the petitioner to demonstrate that:

1. Factors relating to that petitioner are substantially and significantly different from the factors relied upon by the Board in adopting the general regulation applicable to that petitioner;

2. The existence of those factors justifies an adjusted standard;

3. The requested standard will not result in environmental or health effects substantially and significantly more adverse than the effects considered by the Board in adopting the rule of general applicability; and

4. The adjusted standard is consistent with any applicable federal law. 415 ILCS 5/28.1(c) (2002); 35 Ill. Adm. Code 104.426(a).

The burden of proof in an adjusted standard proceeding is on the petitioner. 35 Ill. Adm. Code 104.426. Noveon must also justify its request pursuant to the requirements of Section

27(a) of the Act. *Id.*; 415 ILCS 5/28.1(a) (2002). Under Section 27(a), the Board considers the existing physical conditions, the character of the surrounding area including the nature of the receiving body of water, and "the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution." 415 ILCS 5/27(a) (2002).

CURRENT APPLICABLE STANDARDS

Section 301.345 defines population equivalent as:

"Population Equivalent" is a term used to evaluate the impact of industrial or other waste on a treatment works or stream. One population equivalent is 100 gallons (380 l) of sewage per day, containing 0.17 pounds (77 g) of BOD_5 (five day biochemical oxygen demand) and 0.20 pounds (91 g) of suspended solids. The impact on a treatment works is evaluated as the equivalent of the three highest parameters. Impact on a stream is the higher of the BOD_5 and suspended solids parameters.

Section 304.122 of the Board's effluent standards for ammonia nitrogen provides:

a) No effluent from any source which discharges to the Illinois River, the Des Plaines River downstream of its confluence with the Chicago River System or the Calumet River System, and whose untreated waste load is 50,000 or more population equivalents shall contain more than 2.5 mg/L of total ammonia nitrogen as N during the months of April through October, or 4 mg/L at other times.

b) 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.

c) In addition to the effluent standards set forth in subsections (a) and (b) of this Section, all sources are subject to Section 304.105.

NOVEON'S PROPOSED ADJUSTED STANDARD

In the petition, Noveon proposed the following three alternatives of adjusted standard language for adoption by the Board:

Alternative #1

Noveon, Inc. ("Noveon") is hereby granted an adjusted standard from 35 Ill. Adm. Code 304.122. Pursuant to this adjusted standard, 35 Ill. Adm Code 304.122 shall not apply to the discharge of effluent into the Illinois River from the Noveon plant located at 1550 County Road, 850 N., in Henry, Illinois as regards

ammonia nitrogen. The granting of this adjusted standard is contingent upon the following conditions:

A. Noveon shall not discharge calculated un-ionized ammonia at concentrations greater than 3.5 mg/l during the months of April through October and 7.9 mg/l during the months of November through March from its Henry, Illinois plant into the Illinois River.

B. Discharge into the Illinois River shall occur through a diffuser that is at least 15 ft. in length, with 9 two-inch ports, angled at 60 degrees from horizontal, co-flowing with the river, designed to achieve an effluent dispersion of 43:1.

Alternative #2

Noveon, Inc. ("Noveon") is hereby granted an adjusted standard from 35 Ill. Adm. Code 304.122. Pursuant to this adjusted standard, 35 Ill. Adm Code 304.122 shall not apply to the discharge of effluent into the Illinois River from the Noveon plant located at 1550 County Road, 850 N., in Henry, Illinois as regards ammonia nitrogen. The granting of this adjusted standard is contingent upon the following conditions:

A. The water quality standards will be met by Noveon Henry plant limiting its total ammonia nitrogen discharge to 1200 pounds per day during the months of April through October and 1735 pounds per day during the months of November through March.

B. Discharge into the Illinois River shall occur through a diffuser that is at least 15 ft. in length, with 9 two-inch ports, angled at 60 degrees from horizontal, co-flowing with the river, designed to achieve an effluent dispersion of 43:1.

Alternative #3

Noveon, Inc. ("Noveon") is hereby granted an adjusted standard from 35 Ill. Adm. Code 304.122. Pursuant to this adjusted standard, 35 Ill. Adm. Code 304.122 shall not apply to the discharge of effluent into the Illinois River from the Noveon plant located at 1550 County Road, 850 N., in Henry, Illinois as regards ammonia nitrogen. The granting of this adjusted standard is contingent upon the following conditions:

A. Noveon shall not discharge calculated total ammonia nitrogen at concentrations greater than 155 mg/l during the months of April through October and 225 mg/l during the months of November through March from its Henry, Illinois plant into the Illinois River.

B. Discharge into the Illinois River shall occur through a diffuser that is at least 15 ft. in length, with 9 two-inch ports, angled at 60 degrees from horizontal, co-flowing with the river, designed to achieve an effluent dispersion of 43:1.

However, in its April 29, 2004 closing brief, Noveon withdraws proposed alternatives 1 and 2, and instead seeks a daily maximum limit for ammonia of 225 mg/L by modifying its proposed alternative 3. Nov. Memo at 42. Noveon explains that an Agency memo conceding that with using the multi-port diffuser Noveon's daily limits would approximate 237.2 mg/L during the summer and 398 mg/L during the winter. *Id.*; Pet. Exh. 37. The following is Noveon's amended proposed language:

> Noveon, Inc. ("Noveon") is hereby granted an adjusted standard from 35 Ill. Adm. Code 304.122. Pursuant to this adjusted standard, 35 Ill. Adm Code 304.122 shall not apply to the discharge of effluent into the Illinois River from the Noveon plant located at 1550 County Road, 850 N., in Henry, Illinois as regards ammonia nitrogen. The granting of this adjusted standard is contingent upon the following conditions:
>
> A. Noveon shall not discharge total ammonia nitrogen at concentrations greater than 225 mg/L from its Henry, Illinois plant in the Illinois River.
>
> B. Discharge into the Illinois River shall occur though a diffuser that it at least 15 ft. in length, with 9 two-inch ports angled at 60 degrees from horizontal, co-flowing with the river, designed to achieve an effluent dispersion of 43:1.

Agency Response to Noveon's Proposed Alternatives

The Agency argues that if the Board grants Noveon's requested relief, the adjustment should not include relief from Section 304.122(c). Subsection (c) requires compliance with the Board's water quality standards. The Agency contends that Noveon has provided no justification for relief from that section. Ag. Memo at 9.

The Agency also states that Noveon's request for a Board determination that the ammonia water quality standards will be met with the zone of initial dilution (ZID) and mixing zone as calculated by Noveon is "inappropriate, unnecessary, and possible an attempt to gain relief from the water quality standard into the future without requesting or justifying such relief directly." Ag. Memo at 10.

In assessing the four alternatives of adjusted standard language, the Agency states it cannot support Noveon's request for an even higher limit in the summer months than originally requested at this late date. Ag. Memo at 10-11.

EFFORTS TO ACHIEVE COMPLIANCE AND ALTERNATIVES

Noveon states that it hired consultant Brown and Caldwell, f/k/a/ Eckenfelder Inc., beginning in the late 1980s to investigate whether the Henry Plant could nitrify, or oxidize ammonia to nitrates. Pet. at 16. Noveon asserts that two different studies demonstrated that the Henry Plant could not achieve single-stage nitrification under existing waste loads and optimum conditions. *Id.* The reason was due to inhibition of nitrifying bacteria by the PC tank and C-18 tank content flows.

Noveon investigated various other technologies that would help it control and/or reduce ammonia in its discharge, including: (1) reducing ammonia-nitrogen in various processes; (2) pretreating the wastestream; and (3) post-treating the wastestream. Pet. at 16-17. In sum, Noveon indicates that it investigated eleven potential treatment alternatives, but investigations proved that no alternative is both technically feasible and economically feasible that would bring the Henry Plant into compliance with the ammonia-nitrogen limits. Pet. at 24; Nov. Memo at 13.

Reducing Organic Nitrogen in Production

Noveon asserts that it investigated whether it could eliminate amines or recover and recycle the precursors to ammonia in its production processes. Pet. at 17. Noveon concluded it could not eliminate amines since they are an essential element to many of its production processes. *Id.*

Noveon contends that the recycle and reuse alternative was also rejected because the recycled material was of inferior quality and would not guarantee a high quality product. Further, Noveon explains that the material generated in the recycling process would be classified as a hazardous waste. Noveon notes that amines are recovered from some processes at the Henry Plant where recovery methods produce reusable materials and are not cost prohibitive. Pet. at 17. However, Noveon did not indicate how much is reused or in which processes.

Pretreatment of the Wastestream

Noveon investigated several pretreatment options, including norpholine recovery, TBA recovery and a liquid extraction process. Noveon states that none of the pretreatment options would bring Noveon into compliance with the ammonia effluent standard. Pet. at 17. Noveon added that these alternatives also raised plant personnel safety issues. Pet. at 18.

Post-treatment of the Wastestream

After analyzing the alternatives discussed above Brown and Caldwell, investigated six post-treatment alternatives for Noveon. The post-treatment alternatives include the following: (1) alkaline air stripping; (2) struvite precipitation from the combined wastestream influent; (3) effluent breakpoint chlorination; (4) single-stage biological nitrification of non-PC wastestream combined with separate biological treatment of the PC tank discharge; (5) biological nitrification of combined influent wastestream; and (6) ion exchange treatment of final effluent. Pet. at 18. Present costs were estimated for each including capital and operating and management costs. After its initial evaluation, Brown and Caldwell further investigated ozonation, tertiary nitrification, and activated carbon. In addition to providing present worth costs of each of the

full-scale operations, Brown and Caldwell also looked at increments of removal and the associated costs. Brown and Caldwell concluded that the same reliability ratings and pros and cons would apply. Tr. 2004 at 497-98; citing Exh. 12.

Alkaline Air Stripping

This process requires increasing the pH of a wastewater stream and then removing the resulting ammonia gas. Noveon attempted air stripping at three different points: (1) within the PC tank; (2) within the PVC tank; and (3) at the secondary clarifier effluent. Pet. at 18; citing Pet. Exh. 6 at 2-1 to 2-2.

The test results, stated Noveon, showed that air stripping would result in some ammonia reduction. However, the level of ammonia reduction was low, meaning that air stripping in both the PC tank and PVC tank would not reduce ammonia enough to meet the effluent limitation of Section 304.122(b). Further, Noveon stated the present worth capital and operation and maintenance costs totaled $2.3 million for PC tank treatment and $14.1 million for PVC tank treatment. Pet. at 19-20.

In the secondary clarifier, Noveon states ammonia removal surpassed 95% using packed tower air stripping technology. Pet. at 20. The disadvantages of this technology is that it would increase total dissolved solids (TDS) by more than 20%, which could lead to aquatic toxicity of the effluent, as well as high costs of installation, operation, and maintenance. Noveon calculated the present worth of this technology at $14 million. Pet. at 20; Pet. Exh. 7 at pp. 2-3. Noveon explains that the costs of this alterantive are so high because additional equipment is required to remove ammonia from the gases produced. Pet. at 20.

Struvite Precipitation

This alternative reduces ammonia by precipitating a struvite from the combined wastestreams of Noveon and PolyOne. Pet. at 20; citing Pet. Exh. 6 at 2-2 to 2-4. This alternative, states Noveon, would only reduce the average final effluent ammonia level by 24%, while at the same time increasing TDS in the effluent. Noveon estimates the present worth cost at $5.1 million. Pet. at 20-21.

Effluent Breakpoint Chlorination

Brown and Caldwell also tried adding chlorine gas together with caustic soda to the secondary clarifier wastewater in a reaction tank in order to maintain a higher pH (approximately 6.9). Pet. at 21. This alternative could cause the discharge to meet the ammonia effluent limits. Pet. at 21; Exh. 6 at 3-4. The problem with this alternative, states Noveon, is that its present worth cost is $9.7 million, making it economically unreasonable to employ at the Henry Plant. As with some of the other alternatives discussed, Noveon notes that this alternative will also dramatically increase effluent TDS and may likely result in the formation of chlorinated organics in the effluent. *Id.*

Single-stage Biological Nitrification of Non-PC Wastewater

Noveon states that the consultant's results showed that this alternative reduced ammonia by only 47% and had a present worth cost of $4.9 million. As a result, Noveon determined that this alternative was not technically feasible. Pet. at 22.

Biological Nitrification of Combined Wastewater

This alternative employed pH reduction to two of the PC tank discharges, then the addition of river water and combined single-stage nitrification with non-PC wastestreams. The results of the analysis by Noveon's consultant showed that this alternative is technically feasible, but that it would not allow Noveon to reliably achieve compliance. Pet. at 22. Noveon explains that biological nitrification of the combined wastewater stream is unreliable because it is sensitive to the variable characteristics inherent in the wastewater produced by the different batch processes. *Id.* Further, Noveon states this is an exceptionally costly alternative, estimating the present worth cost at $11.7 million. Pet. at 22; citing Pet. Exh. 7 at pp. 2-3.

Ion Exchange

Brown and Caldwell also researched an ion exchange resin, using clinoptilolite, an ammonia selective exchange resin, to treat the secondary clarifier effluent. Pet. at 22. The test results showed that 50 pounds (lbs.) of clinoptilolite would be required to remove each pound of ammonia, but that this alternative could meet the ammonia effluent standard. Noveon's consultant concluded that the poor removal efficiency was due to competing ions in the effluent. Pet. at 22; citing Pet. Exh. 6 at 3-4. The present worth cost of this alternative, determined Noveon, was $5.1 million. Pet. at 23.

Ozonation

Ozonation was evaluated as an alternative that could meet compliance but was rejected due to its present worth cost of $20.3 million. Pet. at 23. Further disadvantages would be a significant increase in the TDS effluent concentration, and an increase in effluent BOD, potentially causing violations of BOD effluent limits. *Id.*

Tertiary Nitrification

Tertiary nitrification involves pumping the effluent through an aeration basin containing a fixed filter that nitrifying bacteria grows on. Brown and Caldwell determined that this process was technically feasible, but lacked reliability for the same reasons that biological nitrification of the combined wastewater lacked reliability. Pet. at 23. The present worth costs were estimated at $11.4 million. *Id.*

Powdered/Granulated Activated Carbon

At hearing, Mr. Flippin testified that Noveon considered powdered and granulated activated carbon (GAC) as ammonia treatment alternatives, but determined that both would be infeasible. Mr. Flippin stated that Noveon's discharge would require a dose of 5,000 mg/L of

powdered activated carbon. A dose proportional to the actual flow would total approximately 17 tons a day of carbon. Mr. Flippin stated that GAC is about twice as efficient, but would still require as much as eight and a half tons per day, or approximately 119,000 tons of the material per week. 2004 Tr. at 490-91. Implementation of this alternative would require additional treatment such as a solids separation step or a polymer addition. Two additional problems that arise from using GAC as an alternative are scaling, resulting from too much salt, and biofouling from lime and biomass as a result of too much BOD. 2004 Tr. at 492.

Agency Response

While conceding that some of the alternatives are quite expensive, the Agency contends that evidence in the record clearly shows that there are technically feasible alternatives available for the treatment of ammonia at Noveon's facility. Ag. Memo at 17-18. Regarding Noveon's assertion that it will replace the current single-port diffuser with a multi-port diffuser, the Agency clarifies that the change is necessary in order to bring Noveon into compliance with the water quality standards, not a form of treatment to reduce its ammonia discharge. Ag. Memo at 18. After reviewing the treatment alternatives that Noveon presented, the Agency concluded that the capital costs presented by Noveon are not economically unreasonable based on the large quantity of ammonia that would be removed from the discharge. *Id.* at 20. There exist treatments, argues the Agency, that could allow the Henry Plant to achieve at least partial compliance with 304.122(b) for an economically reasonable cost. However, the Agency notes, "it is not the role of the Illinois EPA or the Board to select Noveon's treatment system." *Id.* at 22.

The Agency argues that Noveon should propose to reduce ammonia in its effluent to levels that would achieve the greatest reductions while still being economically reasonable in order to minimize the environmental impact from the discharge of ammonia. Instead, the Agency asserts, Noveon is taking an all or nothing approach. Ag. Memo at 24. The Agency claims that Noveon is not willing to implement any of the alternatives that it investigated, claiming that none are economically reasonable and technically feasible. *Id.*

SUBSTANTIALLY DIFFERENT FACTORS

Noveon contends that the factors relied on by the Board in promulgating Section 304.122 were substantially different than those that currently apply to the Noveon Henry Plant. Noveon states Section 304.122 (a) and (b) were motivated by both the available technology to treat ammonia and the desire to address the dissolved oxygen demand in the Illinois River. Pet. at 28; citing Water Quality Standards Revisions, R72-4 (Nov. 8, 1973).

Noveon concedes that technology to help Noveon meet the ammonia limit of Section 304.122(b) is available, but that no alternative is both technologically feasible and economically reasonable. Specifically, Noveon discusses three factors that make it difficult for Noveon to comply with the ammonia nitrogen limit. Nov. Memo at 11. First, Noveon states "[t]hrough no absence of equipment or flaw in design, the wastewater treatment facility simply does not perform the treatment that it would absent influent bio-inhibiting compounds." Nov. Memo at 21. Noveon explains that it uses a compound in production that prevents nitrification: MBT.

Noveon states that as a result, its waste stream requires pretreatment to remove bio-inhibiting compounds so the treatment process can adequately remove BOD. Nov. Memo at 11. The reduced nitrification, states Noveon, also requires Noveon to add alkalinity, in contrast to a POTW, where most of the alkalinity required for nitrification is already found in the wastewater.

Second, Noveon claims that its waste stream contains compounds that reduce its oxygen transfer capacity to approximately half of what a POTW experiences, requiring Noveon to provide twice the amount of aeration to satisfy the same oxygen demand of its wastewater. *Id.* Third, Noveon claims that another primary toxicant in its effluent is salt. *Id.* Noveon continues that because all treatment processes for removing significant amounts of ammonia nitrogen require the addition or release of salt, ammonia nitrogen removal would increase levels of this toxicant.

Noveon also contends that since the promulgation of Section 304.122, the technical justification for removing ammonia nitrogen has changed. According to Noveon, it has since been determined that the dissolved oxygen sags were caused by sediment oxygen demand rather by the discharge of ammonia nitrogen as previously thought. Pet. at 29. Noveon asserts that the ammonia Noveon discharges has a minimal impact upon the level of dissolved oxygen in the Illinois River. For these reasons, Noveon argues that the factors the Board relied upon in promulgating 304.122(b) are significantly different than those that currently apply to the Noveon Henry Plant.

Agency Response

The Agency disagrees with Noveon's contention that the technological factors or cost of reducing ammonia are substantially different than what was contemplated by the Board in promulgating the ammonia nitrogen limit. Ag. Memo at 32. The Agency asserts that while some factors make Noveon's discharge more difficult to treat for ammonia than many other industries, those distinctions do not justify the requested relief. The requested relief would grant Noveon an effluent ammonia concentration limit of 75 times that contained in the rule of general applicability. Ag. Memo at 34.

ADJUSTED STANDARD JUSTIFICATION

Noveon contends the primary factor that justifies its requested relief is economic reasonableness. Pet. at 29. Noveon asserts that the current ammonia standard was adopted based upon balancing potential adverse impact on dissolved oxygen against the cost and ease of reducing ammonia. *Id.* According to Noveon, economic reasonableness weighs in its favor. Noveon argues that the high cost of technically feasible control technology and minimal environmental benefit that such technology would provide warrants the requested relief. *Id.*

IMPACT ON THE ENVIRONMENT

Noveon argues that granting the requested relief will not result in any adverse environmental impact. Pet. at 25. Noveon contends the Board's basis for adopting the ammonia-nitrogen limitations was that larger dischargers were contributing to dissolved oxygen

sags. However, Noveon contends that rationale was refuted when researchers discovered that dissolved oxygen sags occurred because of three primary oxygen demand sinks instead: carbonaceous BOD, nitrogenous BOD, and sediment oxygen demand. Pet. at 26; Nov. Memo at 31; citing Site Specific Exception to Effluent Standards from the Greater Peoria Sanitary District and Sewage Disposal District, R87-21 (Oct.6, 1988). Noveon argues that the two most important criteria the Board should consider are: (1) whether Noveon is contributing to the limitation or reducing dissolved oxygen of the Illinois River; or (2) whether Noveon is contributing to the Board's water quality standards regarding aquatic toxicity. 2004 Tr. at 12.

Noveon's expert, Mr. Corn, ran a wasteload allocation model with Noveon's organic loadings and high ammonia loadings, both oxygen-depleting substances. Nov. Memo at 32. According to Noveon, the results showed that during critical periods of low flow and high temperatures, the DO concentration downstream from the Noveon discharge (7.5 mg/L) meets the existing standards for DO (5 mg/L). Nov. Memo at 32; 35 Ill. Adm. Code 302.206. Noveon therefore concludes that the discharge does not adversely impact DO levels downstream of its discharge.

Regarding impact on aquatic life from the discharge, Noveon maintains there is none. Noveon asserts that Agency testimony that the entire upper Illinois River has improved notwithstanding Noveon's discharge supports this conclusion. Nov. Memo at 34; citing 1991 Tr. at 117-18.

As part of its requested relief, Noveon also requests a mixing zone designation in the Illinois River. According to Noveon, the mixing zone and zone of initial dilution are critical aspects of the relief that Noveon requests. Noveon asserts that Section 302.102 governs allowed mixing, mixing zones and zones of initial dilution and that Noveon's proposal will meet each of the 12 requirements set forth in Section 302.102(b). 35 Ill. Adm. Code 302.102. Accordingly, Noveon contends that its requested adjusted standard will not adversely impact the environment or human health.

Noveon states that if it is granted the requested relief, it will install a multi-port diffuser. Nov. Memo at 36. Noveon defines the multi-port diffuser as "an engineered structure that enhances the mixing of an effluent into a receiving stream." *Id.* Noveon asserts a multi-port diffuser could achieve a dispersion rate of 43:1, as compared to 13:2:1 for the single-port diffuser. *Id.*

Agency Response

The Agency contests Noveon's assertion that the requested relief will have no adverse environmental impacts. Ag. Memo at 25. The Agency points to its own testimony that Noveon's effluent is the single most toxic remaining discharge to the waters of the State of Illinois. Ag. Memo at 25-26; citing 2004 Tr. at 350. The Agency asserts that Noveon has performed no in-stream studies looking at the actual impact of its discharge on the aquatic life downstream from its discharge, but nevertheless concluded there would be no adverse impact. Ag. Memo at 26.

The Agency also disputes Noveon's contention that the requested relief would have no measurable impact on the environment or human health. Ag. Memo at 34. The Agency notes that the Henry Plant is still not currently able to meet water quality standards for ammonia at the edge of a mixing zone or ZID. Ag. Memo at 35. The Agency maintains that Noveon has not proposed to reduce the amount of ammonia in its discharge by any amount. Accordingly, the Agency argues that Noveon has not justified the requested relief and must continue to ask the board to deny Noveon's request. *Id.*

Regarding Noveon's requested mixing zone, the Agency states that under Section 304.102 of the Board's regulations, Noveon must show that it is providing the best degree of treatment (BDT). Section 304.102 also prohibits using dilution to meet effluent standards. Ag. Memo at 27. The Agency asserts this Section is relevant to the discussion of a mixing zone because it has consistently claimed that Noveon is not providing BDT for ammonia. Further, the Agency states that it never applied a mixing zone to Noveon's discharge because the Agency's program post-dates Noveon's most recently issued NPDES permit. Ag. Memo at 29. However, the Agency and Noveon agree that with the adjusted standard relief and a multi-port diffuser, Noveon would have an adequate mixing zone to achieve water quality standards. *Id.*

CONSISTENCY WITH FEDERAL LAW

Both the Agency and Noveon agree that the requested relief from Section 304.122(b) is consistent with federal law. Pet. at 30. However, the Agency asserts that the Board must limit any relief granted to Section 304.122(a) or (b), because relief from subsection (c) would require approval from the United States Environmental Protection Agency (USEPA). Ag. Memo at 35-36.

Noveon states there are no applicable federal numeric effluent standards or water quality standards for ammonia. Noveon contends that federal regulations direct states to adopt water quality standards that protect the uses, public health or welfare, enhance the quality of water and serve the purposes of the Act. 40 C.F.R. §131.2. According to Noveon, granting this adjusted standard will not impair any beneficial or existing use of the receiving stream. Noveon continues that applicable water quality standards will be met. Pet. at 31; Nov. Resp. at 1.

DISCUSSION

Relief from the Ammonia Nitrogen Effluent Limits

Noveon seeks relief from the State's ammonia-nitrogen limitation found at Section 304.122(b) in the form of an adjusted standard. The Agency recommends that the Board deny Noveon's request for relief.

The Board finds that Noveon's request for relief from the ammonia-nitrogen standard meets the statutory "fundamentally different" factors set forth at Section 28.1(c) of the Act. Noveon has demonstrated that: (1) factors relating to it are substantially and significantly different from the factors relied upon by the Board in adopting the general regulation; (2) the existence of these factors justifies an adjusted standard; (3) the requested standard will not cause

substantially or significantly more adverse environmental or health effects than the effects considered by the Board in adopting the rule of general applicability; and (4) the adjusted standard is consistent with applicable federal laws. 415 ILCS 5/28.1(c) (2002). The Section 28.1(c) factors are discussed in turn.

Substantially Different Factors

The Board adopted the ammonia effluent limit, now Section 304.122(a), on January 6, 1972, as "Rule 406" to address the impact of ammonia nitrogen in municipal wastewater on dissolved oxygen demand in the receiving stream. R70-8, R71-14, and R71-20 (Jan 6, 1972). What became subsection (b) of Section 304.122, was adopted as an amendment to Rule 406 on June 28, 1973, in R72-4. Water Quality Standards Revisions, R72-4. The amendment extended the ammonia nitrogen effluent limits to non-municipal wastewater dischargers, mainly industrial dischargers, but did not address the issue of available treatment technologies.

The Board finds that the quality and composition of the discharge that Noveon produces in its manufacturing process is substantially and significantly different than wastewaters of other industries and POTWs. The presence of MBT, a building block chemical used in Noveon's processes, inhibits the growth of nitrifying bacteria. The presence of degradable organic nitrogen compounds generates large amounts of ammonia nitrogen during secondary treatment of Noveon's wastewater. Further, Noveon's wastewater is very low in alkalinity, thus requiring addition of alkalinity to achieve nitrification. Although Noveon's wastewater treatment plant is designed, constructed, and operated similarly to a POTW that achieves nitrification, the Henry plant is unable to achieve nitrification because of the unique characteristics of Noveon's wastewater. The Board did not anticipate the specialty chemicals manufacturing processes that Noveon employs at the Henry Plant when it promulgated the ammonia effluent limit at Section 304.122(b), applicable mainly to other industrial dischargers, in 1972.

Justification for Relief

Noveon bases its justification for the requested relief on the lack of an economically reasonable and technically feasible alternative for removing ammonia nitrogen. Noveon argues that the cost of technically feasible control technology is extremely high and yields a minimal environmental benefit. Since Noveon is unable to nitrify ammonia in its existing wastewater treatment plant, Noveon examined several treatment alternatives to reduce ammonia in its effluent. The Board notes that the costs per pound of ammonia removed for the various alternatives that Noveon investigated are significantly less than technologies investigated and implemented in other site-specific rulemakings by facilities that reduced their effluent ammonia concentrations to more acceptable levels. *See* Petition of PDV Midwest Refining, L.L.C. for a Site-Specific Rulemaking Amendment to 35 Ill. Adm. Code 304.213, R98-14 (Dec. 17, 1998); Site-Specific Petition of Mobil Oil Corp. for Relief From 35 Ill. Adm. Code 304.122, Ammonia Nitrogen Effluent Standards, R97-28 (Jan. 22, 1998). However, the overall cost of reducing ammonia nitrogen would be significantly higher due to the large quantity of ammonia that Noveon must remove to meet the ammonia effluent limit.

The present worth cost of alternatives with an ammonia nitrogen removal rating above 90 percent range from $5.8 million to $ 14.1 million. Some of these alternatives such as effluent stripping with off-gas control, combined single-stage nitrification, effluent ion exchange have low performance reliability. Some alternatives also contributed to higher TDS levels or chlorinated organics in the effluent. Pet. at 19-24. Moreover, the financial information presented by Noveon indicates that implementing any one of the viable alternatives would significantly affect the company's return on revenue, and return on net plant, property and equipment. The resulting return on revenue would be very small or negative for the evaluated treatment alternatives. 2004 Tr. at 285. After considering all of these factors, the Board finds that no treatment alternative investigated is economically reasonable, although some of them are technically feasible.

Environmental Impact

The Board finds that Noveon's discharge does not have an adverse environmental impact on the receiving stream. Noveon submitted modeling in support of its argument that the requested relief will not result in adverse environmental or health effects because the modeling shows that DO concentration in the Illinois River downstream from Noveon's outfall during critical flow (7Q10) is above the current DO standard of 5 mg/L. Noveon has also submitted test results showing that, other than ammonia and salinity, no other toxic parameters exist in its effluent. The test is called the Toxicity Identification Evaluation (TIE), and provides information on organic toxicity, metal toxicity, oxidane toxicity, and reducible compounds. Nov. Reply at 25. Further, Noveon argues that with installation of the multi-port diffuser, the discharge will meet the ammonia acute water quality standard at the edge of the ZID and the ammonia chronic water quality standard at the edge of the mixing zone.

The Board finds these demonstrations provide assurance that Noveon's discharge will not adversely impact aquatic life. However, the Board shares the Agency's concern that Noveon has not provided any in-stream monitoring studies to assess the actual impact of its discharge on aquatic life. Ag. Memo at 26. Special Condition 6 of Noveon's NPDES permit, recently affirmed in docket PCB 91-17, requires Noveon to prepare a preliminary plan for, and perform biomonitoring of, at least two trophic levels of aquatic species; fish and invertebrates. Condition 6 requires Noveon to conduct these tests on a monthly basis for six months and submit the results to the Agency within a week after they are available to Noveon.

Accordingly the Board will not order biological studies because biomonitoring is already a condition of Noveon's NPDES permit. Considering that Noveon discharges over 900 pounds of ammonia per day into the Illinois River, biomonitoring will provide a quantification of biological impact, if any, of Noveon's discharge from its outfalls on aquatic life.

Condition 4 of the NPDES permit also requires Noveon to monitor and report the pounds per day of ammonia discharged from its outfalls. Pursuant to the permit, Noveon must submit the results to the Agency on a monthly basis. Further, since the Board's finding concerning the impact on aquatic life is partly premised on Noveon's compliance with the ammonia nitrogen water quality standards, the Board orders Noveon to demonstrate compliance with the applicable ammonia nitrogen water quality standards at the edge of the mixing zone and ZID, as will be

defined by the Agency. The Board requires Noveon to monitor ammonia nitrogen in the Illinois River in accordance with Board regulations on a quarterly basis. These monitoring requirements are included as conditions to the adjusted standard, and will apply only after Noveon installs the multi-port diffuser.

Throughout the duration of this adjusted standard, the Board encourages Noveon to research and propose means, beyond the wastewater treatment plant and multi-port diffuser, of providing environmentally beneficial improvements to the Illinois River in Marshall County. The Board has incorporated voluntary environmental projects proposed by petitioners into adjusted standards in the past. Petition of Illinois American Water Company's (IAWC) Alton Public Water Supply Replacement Facility Discharge to the Mississippi River for an Adjusted Standard from 35 Ill. Adm. Code 302.203, 304.106, and 304.124, AS 99-6 (Sept. 7, 2000) (petition for an adjusted standard for offensive discharges and conditions, and discharges of total suspended solids and iron); Petition of City of East Moline and IEPA for an Adjusted Standard from 35 Ill. Adm. Code 304, AS 91-9 (May 19, 1994); Petition of City of Rock Island for an Adjusted Standard from 35 Ill. Adm. Code 304, AS 91-13 (Oct. 19, 1995). In IAWC's adjusted standard, IAWC was allowed to discharge directly into the Mississippi in exchange for IAWC's financial support of nearby non-point source sediment loading reduction projects. The projects were implemented by a charitable non-profit trust, the Great Rivers Land Trust, whose goal it is to protect the watersheds in the area.

Any project that Noveon researches and proposes must improve, restore or protect the Illinois River in Marshall County and reduce risks to public health and the environment beyond what is ordered by this adjusted standard. While research of potential improvements is not part of the Board's order, the Board will consider proposals by Noveon should Noveon choose to renew this adjusted standard at a future date.

Consistency with Federal Law

Finally, the parties agree, and the Board finds, there is no inconsistency between granting Noveon's requested relief from Section 304.122(b) and federal law. Accordingly, the Board grants an adjusted standard from the Board's ammonia effluent limits and defines the mixing zone applicable to Noveon's discharge, but does not grant Noveon relief from the Board's water quality standards.

Best Degree of Treatment and Mixing Zone

The Board has found above that no investigated alternative is both technologically feasible and economically reasonable, and has determined that Noveon has adequately supported its petition for relief from the ammonia effluent limit. As discussed below, the Board further finds that Noveon provides BDT at the Henry Plant and, thus, qualifies for a mixing zone and ZID pursuant to Section 302.102 of the Board's mixing zone regulations. Nonetheless, the Board does not designate a mixing zone and ZID as part of the granted relief.

Under the "allowed mixing concept," a discharger that is unable to comply with the requirement of not causing or contributing to water quality violations, "after making every effort

to fulfill the obligations of the discharger . . . and given the limits imposed by the nature of the receiving water body and the character of the outfall(s), is entitled to use a limited portion of the receiving body of water to effect mixing of the effluent with the receiving water. Within this limited portion of the receiving body of water, the discharger is excused from compliance with 304.105." Marathon Oil Co. v. IEPA, PCB 92-166 (Mar. 31, 1994).

Although the Board has the authority to designate a mixing zone in an adjusted standard,[3] here the Board leaves that designation for the Agency to make in Noveon's NPDES permit. The Illinois Supreme Court has stated that the mixing zone is formally defined by the Agency in the NPDES permitting process and, if granted, is included as a condition in the permittee's NPDES permit. Granite City Steel, Co. v. PCB, 155 Ill. 2d 149, 160, 613 N.E.2d 719 (1993). The Board acknowledges that the Agency is typically charged with reviewing an NPDES permit application requesting recognition of a mixing zone pursuant to its responsibilities as permitter. *See* Amendments to Title 35, Subtitle C (Toxics Control), R88-21(A) (Jan. 25, 1990). It is then the Board's position to resolve disputes between permit applicants and the Agency.

A mixing zone is "an area for allowed mixing which is formally defined by the Agency in the NPDES permitting process and, if granted, is included as a condition in the permittee's NPDES permit." Granite City Division of National Steel Co., *et al.* v. PCB, 155 Ill. 2d 149, 613 N.E.2d 719 (1993); *see also* 35 Ill. Adm. Code 302.102(d). "A ZID is likewise formally defined and granted by the Agency during the permitting process and, if granted, is included in the discharger's mixing-zone permit condition." *Id.*

Depending on the Agency's permit decisions about the mixing zone, the permittee may use mixing as a means of compliance with the Board's water quality standards. *See* 35 Ill. Adm. Code 302.102(g), (h). Board regulations state that a mixing zone is available where the discharger has made every effort to comply with 304.102, which requires all dischargers to provide BDT. 35 Ill. Adm. Code 302.102(a). The regulations further provide that BDT must be consistent with technological feasibility, economic reasonableness and sound engineering judgment. 35 Ill. Adm. Code 304.102(a). Where a permit is silent as to mixing, the discharger has the burden of proof to show compliance with the general allowed-mixing regulations. 35 Ill. Adm. Code 302.102(i).

Until now, the Agency has not applied a mixing zone to Noveon's discharge because the Agency's mixing zone program came after Noveon's most recently issued NPDES permit. Ag. Memo at 29. The Agency has stated that Noveon is providing BDT to all wastestreams for all parameters except ammonia. 1991 Tr. at 131. The Board further finds in this order that Noveon qualifies for an adjusted standard from the ammonia effluent limit because no other alternative investigated is both technologically feasible and economically reasonable. Thus, the Board finds that Noveon meets the threshold requirement for a mixing zone and ZID by providing BDT at the Henry Plant.

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[3] "In adopting adjusted standards the Board may impose such conditions as may be necessary to accomplish the purposes of the Act." 35 Ill. Adm. Code 104.428(a).

Though the Board does not include the mixing zone and ZID in Noveon's granted relief, the Board does require Noveon to install and maintain a high-rate, multi-port diffuser as a condition to the adjusted standard. The diffuser must be designed to achieve effluent dispersion necessary to meet the applicable ammonia nitrogen water quality standards at the edge of the mixing zone and ZID. The Agency will define both Noveon's mixing zone and ZID, in accordance with Board mixing zone regulations, through the NPDES permitting process.

Adjusted Standard Language

After hearing, Noveon withdrew the first two of the three proposed alternatives and submitted revised adjusted standard language to which the Agency maintained its objection. The revised wording incorporated a daily maximum limit for ammonia of 225 mg/L. The revised wording, like alternatives one through three, also reiterated that Noveon will install and operate a multi-port diffuser.

In granting this adjusted standard, the Board is adopting language based on the ammonia effluent limits suggested by Noveon in alternative three. The Board finds no historic data that shows Noveon cannot meet the limit of 155 mg/L ammonia year-round. The Board does not agree that simply because the Agency calculated a theoretical level that is higher than what Noveon actually discharges, Noveon should be permitted to discharge up to that amount. Accordingly, the Board limits Noveon's maximum ammonia concentration to 155 mg/L. The Board also includes the requirement that Noveon install and operate a high-rate multi-port diffuser and requires that the diffuser be designed to achieve a dispersion rate necessary to meet the applicable ammonia nitrogen water quality standards at the edge of the mixing zone and ZID as will be defined by the Agency.

The Board drafts this adjusted standard so that it terminates after seven years. This period of time will allow Noveon to complete the installation of the multi-port diffuser and perform water quality monitoring and reporting obligations required by this adjusted standard. The Board also notes that in seven years results of the water quality monitoring will be in and new, more economically reasonable technology may become available and revisiting the ammonia nitrogen issue at that time will be beneficial.

The Board uses the language Noveon proposed in Alternative 3, applies the proposed summer standard as a year-round limit, imposes a sunset provision, and adds monitoring and reporting requirements. Any non-substantive changes are intended to bring this order into conformity with the Board's usual drafting style in adjusted standards.

CONCLUSION

The Board grants Noveon relief from the ammonia effluent limit found at Section 304.122(b) of the Board's regulations at its facility in Henry, Marshall County. Noveon remains subject to the water quality limits found at Section 304.105 and conditions included in the Board's order. The relief is effective as of the date of this order.

This opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

1. This adjusted standard will expire on November 4, 2011.

2. Noveon is hereby granted an adjusted standard from 35 Ill. Adm. Code 304.122(b). Pursuant to this adjusted standard, 35 Ill. Adm. Code 304.122 shall not apply to the discharge of effluent into the Illinois River from the Noveon plant located at 1550 County Road, 850 N., in Henry, Illinois as regards ammonia nitrogen. The granting of this adjusted standard is contingent upon the following conditions:

3. Noveon must not discharge calculated total ammonia nitrogen at concentrations greater than 155 mg/L from its Henry, Illinois plant into the Illinois River.

4. Discharge into the Illinois River shall occur through a high-rate, multi-port diffuser designed 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). Noveon must install the multi-port diffuser within one year of issuance of its revised NDPES permit.

5. Monitoring Requirements: Noveon must monitor ammonia nitrogen in the Illinois River on a quarterly basis to demonstrate compliance with the applicable ammonia water quality standards in accordance with 35 Ill. Adm. Code 302.212. The monitoring must commence within 30 days of the installation of the multi-port diffuser and continue until the termination of this adjusted standard. The monitoring results must be reported to the Agency in the annual report described in section (6)(c), below.

6. New Production Methods and Technologies

    a. Noveon must continue to investigate production methods and technologies that generate less ammonia in Noveon's discharge into the Illinois River. Where practicable, Noveon must substitute current methods or technologies with new ones so long as the substitution generates less ammonia in Noveon's discharge.

    b. Noveon must perform any reasonable test of new technologically or economically reasonable production methods or materials applicable to the specialty chemicals manufacturing process, which may reduce ammonia concentration in the discharge from Noveon's facility which the Illinois Environmental Protection Agency (Agency) specifically requests in writing that they do.

    c. Noveon must prepare and submit each year an annual report summarizing the activities and results of these investigatory efforts. The annual report

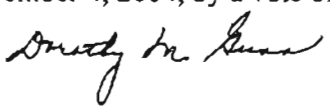
must be submitted to the Agency, Bureau of Water, Compliance and Enforcement Section.

7. Noveon must operate in full compliance with the Clean Water Act, its National Pollutant Discharge Elimination System program, the Board's water pollution regulations, and any other applicable regulation.

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) (2002); *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 motions 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, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on November 4, 2004, by a vote of 5-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board

Exhibit 2

NPDES Permit No. IL0001392

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date: April 30, 2012

Issue Date: February 9, 2007
Effective Date: May 1, 2007

Name and Address of Permittee:

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

Facility Name and Address:

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

Discharge Number and Name:		Receiving Waters:
A01	Process Waste, Cooling Tower Blowdown, Sanitary Waste, Process Water Production Waste, Boiler Blowdown, Demineralizer Waste and Stormwater	Illinois River
B01	Stormwater, Non-contact Cooling Water, Lime Softening and Demineralizer Waste	Illinois River
001	Combined Discharges from Outfall A01 and B01	Illinois River
002 - 006	Stormwater	Illinois River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:REP:06110901.bah

NPDES Permit No. IL0001392

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): A01* DAF = 0.917 MGD

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Flow (MGD)					Daily	Continuous
pH	See Special Condition 1				5/Week	Grab
BOD_5	183.5	477	20	40	5/Week	Composite
Total Suspended Solids	229.35	596.3	25	50	5/Week	Composite
Fecal Coliform	See Special Condition 2				1/Month	Grab
Temperature	See Special Condition 3				Daily	Continuous
Chromium (Total)	7.15	17.83	1	2	1/Year	Composite
Copper		2.56		0.215	1/Year	Composite
Cyanide	0.764	2.39	0.1	0.2	1/Year	Grab
Lead	2	4.3	0.2	0.4	1/Year	Composite
Nickel	7.64	23.9	1	2	1/Year	Composite
Zinc	6.76	16.8	1	2	1/Year	Composite
Acenaphthene	0.142	0.38	0.022	0.059	1/Year	Grab
Acrylonitrile	0.618	1.558	0.096	0.242	1/Year	Grab
Benzene	0.238	0.876	0.037	0.136	1/Year	Grab
Carbon Tetrachloride	0.116	0.245	0.018	0.038	1/Year	Grab
Chlorobenzene	0.097	0.18	0.015	0.028	1/Year	Grab
1,2,4-Trichlorobenzene	0.438	0.901	0.068	0.14	1/Year	Grab
Hexachlorobenzene	0.097	0.18	0.015	0.028	1/Year	Grab
1,2-Dichloroethane	0.438	1.359	0.068	0.211	1/Year	Grab
1,1,1-Trichloroethane	0.135	0.348	0.021	0.054	1/Year	Grab
Hexachloroethane	0.135	0.348	0.021	0.054	1/Year	Grab
1,1-Dichloroethane	0.142	0.38	0.022	0.059	1/Year	Grab
1,1,2-Trichloroethane	0.135	0.348	0.021	0.054	1/Year	Grab
Chloroethane	0.67	1.726	0.104	0.268	1/Year	Grab

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Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Continue Outfall(s): A01* DAF = 0.917 MGD

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Chloroform	0.135	0.296	0.021	0.046	1/Quarter	Grab
2-Chlorophenol	0.2	0.631	0.031	0.098	1/Year	Grab
1,2-Dichlorobenzene	0.496	1.049	0.077	0.163	1/Year	Grab
1,3-Dichlorobenzene	0.2	0.283	0.031	0.044	1/Year	Grab
1,4-Dichlorobenzene	0.097	0.18	0.015	0.028	1/Year	Grab
1,1-Dichloroethylene	0.103	0.161	0.016	0.025	1/Year	Grab
1,2-Trans Dichloroethylene	0.135	0.348	0.021	0.054	1/Year	Grab
2,4-Dichlorophenol	0.251	0.721	0.039	0.112	1/Year	Grab
1,2-Dichloropropane	0.985	1.481	0.153	0.23	1/Year	Grab
1,3-Dichlorpropylene	0.187	0.283	0.029	0.044	1/Year	Grab
2,4-Dimethylphenol	0.116	0.232	0.018	0.036	1/Year	Grab
2,4-Dinitrophenol	0.728	1.835	0.113	0.285	1/Year	Grab
2,6-Dinitrotoluene	1.642	4.127	0.255	0.641	1/Year	Grab
Ethylbenzene	0.206	0.695	0.032	0.108	1/Year	Grab
Fluoranthene	0.161	0.438	0.025	0.068	1/Year	Grab
Methylene Chloride	0.258	0.573	0.04	0.089	1/Month	Grab
Methyl Chloride	0.554	1.223	0.086	0.19	1/Year	Grab
Hexachlorobutadiene	0.129	0.315	0.02	0.049	1/Year	Grab
Naphthalene	0.142	0.38	0.022	0.059	1/Year	Grab
Nitrobenzene	0.174	0.438	0.027	0.068	1/Year	Grab
2-Nitrophenol	0.264	0.444	0.041	0.069	1/Year	Grab
4-Nitrophenol	0.464	0.798	0.072	0.124	1/Year	Grab
2,4-Dinitrophenol	0.457	0.792	0.071	0.123	1/Year	Grab
4,6-Dinitro-o-Cresol	0.502	1.783	0.078	0.277	1/Year	Grab

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Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Continue Outfall(s): A01* DAF = 0.917 MGD

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Phenol	0.097	0.167	0.015	0.026	1/Year	Grab
Bis(2-ethylhexyl)phthalate	0.663	1.796	0.103	0.279	1/Year	Grab
Di-n-butyl phthalate	0.174	0.367	0.027	0.057	1/Year	Grab
Diethyl phthalate	0.522	1.307	0.081	0.203	1/Year	Grab
Dimethyl phthalate	0.122	0.303	0.019	0.047	1/Year	Grab
Benzo(a)anthracene	0.142	0.38	0.022	0.059	1/Year	Grab
Benzo(a)pyrene	0.148	0.393	0.023	0.061	1/Year	Grab
3,4-Benzofluoranthene	0.148	0.393	0.023	0.061	1/Year	Grab
Benzo(k)fluoranthene	0.142	0.38	0.022	0.059	1/Year	Grab
Chrysene	0.142	0.38	0.022	0.059	1/Year	Grab
Acenaphthylene	0.142	0.38	0.022	0.059	1/Year	Grab
Anthracene	0.142	0.38	0.022	0.059	1/Year	Grab
Fluorene	0.142	0.38	0.022	0.059	1/Year	Grab
Phenanthrene	0.142	0.38	0.022	0.059	1/Year	Grab
Pyrene	0.161	0.431	0.025	0.067	1/Year	Grab
Tetrachloroethylene	0.142	0.361	0.022	0.056	1/Year	Grab
Toluene	0.167	0.515	0.026	0.08	1/Year	Grab
Trichloroethylene	0.135	0.348	0.021	0.054	1/Year	Grab
Vinyl Chloride	0.67	1.726	0.104	0.268	1/Year	Grab

*See Special Conditions 4, 9 and 14.

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Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall: 801* DAF = 0.03 MGD						
Flow (MGD)					Measure When Discharging	Estimate
BOD_5					1/Month	Grab
Total Suspended Solids					1/Month	Grab
Total Iron					1/Month	Grab
pH					1/Month	Grab
COD					1/Month	Grab

*See Special Condition 5.

Outfall: 001* DAF = 0.917 MGD					
Flow (MGD)				Daily	Calculate
Ammonia (as N)**	1848.6		155	5/Week	Composite

*See Special Condition 6.
**See Special Condition 18.

Outfalls: 002 through 006*

*See Special Condition 20.

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Special Conditions

SPECIAL CONDITION 1. The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 2. The daily maximum fecal coliform count shall not exceed 400 per 100 ml.

SPECIAL CONDITION 3. Discharge of wastewater from this facility must not alone or in combination with other sources cause the receiving stream to violate the following thermal limitations at the edge of the mixing zone which is defined by Section 302.211, Illinois Administration Code, Title 35, Chapter 1, Subtitle C, as amended:

A. Maximum temperature rise above natural temperature must not exceed 5°F (2.8°C).

B. Water temperature at representative locations in the main river shall not exceed the maximum limits in the following table during more than one (1) percent of the hours in the 12-month period ending with any month. Moreover, at no time shall the water temperature at such locations exceed the maximum limits in the following table by more than 3°F (1.7°C). (Main river temperatures are temperatures of those portions of the river essentially similar to and following the same thermal regime as the temperatures of the main flow of the river.)

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
°F	60	60	60	90	90	90	90	90	90	90	90	60
°C	16	16	16	32	32	32	32	32	32	32	32	16

C. The monthly maximum value shall be reported on the DMR form.

SPECIAL CONDITION 4. For the purpose of this permit, the discharge form outfall A01 is limited to process waste water, cooling tower blowdown, sanitary waste, process water production waste and stormwater from both facilities and the Poly One Corporation's demineralizer waste and boiler blowdown and will serve as an alternate route for waters discharged normally from outfall B01, the discharge shall be free from other wastewater discharges. Sampling for the monitoring requirements for the discharge shall be taken prior to mixing with the discharge from outfall B01.

SPECIAL CONDITION 5. For the purpose of this permit, the discharge from outfall B01 is limited to stormwater, non-contact cooling water, lime softening and demineralizer waste, free from other waste water discharges. Sampling for the monitoring requirements for the discharge shall be taken prior to mixing with the discharge from outfall A01.

SPECIAL CONDITION 6. For the purpose of this permit, the discharge from outfall 001 is limited to the discharges from outfalls A01 and B01, free from other waste water dischargers. Sampling for the monitoring requirements for the discharge shall be taken at a point representative of the discharge and prior to entry into the receiving stream or mixture with the City of Henry POTW's effluent.

SPECIAL CONDITION 7. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

SPECIAL CONDITION 8. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, http://www.epa.state.il.us/water/edmr/index.html.

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The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using eDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 9. Quarterly sampling for outfall A01 shall be performed in March, June, September and December with analytical results submitted in April, July, October and January. Yearly sampling for outfall A01 shall be performed in March with sample results submitted in April.

SPECIAL CONDITION 10. Flow shall be reported in units of Million Gallons per Day (MGD) as a monthly average and daily maximum value.

SPECIAL CONDITION 11. The provisions contained in 40 CFR 122.41 m and n are applicable to this permit.

SPECIAL CONDITION 12. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

SPECIAL CONDITION 13. If an applicable water quality standard or limitation is developed under 302.210 of 35 Ill. Adm. Code and that water quality standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited din the NPDES Permit and found in the effluent at a level of concern, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition after Public Notice and opportunity for hearing.

SPECIAL CONDITION 14. The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) 001.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Unless substitute tests are pre-approved; the following tests are required:

   a. Fish - 96 hour static LC_{50} Bioassay using fathead minnows (Pimephales promelas).

   b. Invertebrate 48-hour static LC_{50} Bioassay using Ceriodaphnia.

2. Testing Frequency - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Samples must be collected in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit.

3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Reports are due to the IEPA no later than the 16th, 13th, 10th, and 7th month prior to the expiration date of this Permit.

4. Toxicity Reduction Evaluation - Should the results of the biomonitoring program identify toxicity, the IEPA may require that the Permittee prepare a plan for toxicity reduction evaluation and identification. This plan shall be developed in accordance with Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluation (TREs), EPA/600/2-88/070, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan for toxicity reduction evaluation within ninety (90) days following notification by the IEPA.

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The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 15. The Permittee must continue to investigate production methods and technologies that generate less ammonia in the Permittee's discharge into the Illinois River. Where practicable, the Permittee must substitute current methods or technologies with new ones so long as the substitution generates less ammonia in the Permittee's discharge.

SPECIAL CONDITION 16. The Permittee must perform any reasonable test of new technologically or economically reasonable production methods or materials applicable to the specialty chemicals manufacturing process, which may reduce ammonia concentration in the discharge from the Permittee's facility which the Illinois Environmental Protection Agency (Agency) specifically requests in writing that they do.

SPECIAL CONDITION 17. The Permittee must prepare and submit each year an annual report summarizing the activities and results of the required investigations found in Special Conditions 15, 16 and 18. The annual report shall be submitted each December to the address identified in Special Condition 8.

SPECIAL CONDITION 18. Emerald must monitor ammonia nitrogen in the Illinois River on a quarterly basis to demonstrate compliance with the applicable ammonia water quality standards in accordance with 35 Ill. Adm. Code 302.212. The monitoring must commence within 30 days of the installation of the multi-port diffuser and continue until the termination of the adjusted standard. The monitoring results must be reported to the Agency in the annual report described in Special Condition 17.

SPECIAL CONDITION 19. The provisions of the Adjusted Standard, AS 02-5, are incorporated in this permit by reference.

SPECIAL CONDITION 20.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

A. A storm water pollution prevention plan shall be developed by the permittee for the storm water associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of storm water discharges associated with the industrial activity at the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit.

B. The plan shall be completed within 180 days of the effective date of this permit. Plans shall provide for compliance with the terms of the plan within 365 days of the effective date of this permit. The owner or operator of the facility shall make a copy of the plan available to the Agency at any reasonable time upon request. [Note: If the plan has already been developed and implemented it shall be maintained in accordance with all requirements of this special condition.]

C. The permittee may be notified by the Agency at any time that the plan does not meet the requirements of this condition. After such notification, the permittee shall make changes to the plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided, the permittee shall have 30 days after such notification to make the changes.

D. The discharger shall amend the plan whenever there is a change in construction, operation, or maintenance which may affect the discharge of significant quantities of pollutants to the waters of the State or if a facility inspection required by paragraph G of this condition indicates that an amendment is needed. The plan should also be amended if the discharger is in violation of any conditions of this permit, or has not achieved the general objective of controlling pollutants in storm water discharges. Amendments to the plan shall be made within the shortest reasonable period of time, and shall be provided to the Agency for review upon request.

E. The plan shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from storm water outfalls at the facility. The plan shall include, at a minimum, the following items:

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1. A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate.

2. A site map showing:

   i. The storm water conveyance and discharge structures;

   ii. An outline of the storm water drainage areas for each storm water discharge point;

   iii. Paved areas and buildings;

   iv. Areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate significant quantities of dust or particulates.

   v. Location of existing storm water structural control measures (dikes, coverings, detention facilities, etc.);

   vi. Surface water locations and/or municipal storm drain locations

   vii. Areas of existing and potential soil erosion;

   viii. Vehicle service areas;

   ix. Material loading, unloading, and access areas.

3. A narrative description of the following:

   i. The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;

   ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;

   iii. Existing structural and non-structural control measures to reduce pollutants in storm water discharges;

   iv. Industrial storm water discharge treatment facilities;

   v. Methods of onsite storage and disposal of significant materials;

4. A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities.

5. An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings.

6. A summary of existing sampling data describing pollutants in storm water discharges.

F. The plan shall describe the storm water management controls which will be implemented by the facility. The appropriate controls shall reflect identified existing and potential sources of pollutants at the facility. The description of the storm water management controls shall include:

1. Storm Water Pollution Prevention Personnel - Identification by job titles of the individuals who are responsible for developing, implementing, and revising the plan.

2. Preventive Maintenance - Procedures for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.

3. Good Housekeeping - Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.

4. Spill Prevention and Response - Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, spill clean up equipment and procedures should be identified, as appropriate. Internal notification procedures for spills of significant materials should be established.

5. Storm Water Management Practices - Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants, measures to remove pollutants from storm water discharge shall be implemented. In developing the plan, the following management practices shall be considered:

   i. Containment - Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm water runoff;

   ii. Oil & Grease Separation - Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges;

   iii. Debris & Sediment Control - Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges;

   iv. Waste Chemical Disposal - Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.

   v. Storm Water Diversion - Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination;

   vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.

6. Sediment and Erosion Prevention - The plan shall identify areas which due to topography, activities, or other factors, have a high potential for significant soil erosion and describe measures to limit erosion.

7. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.

8. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.

G. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.

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H. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated thereunder, and Best Management Programs under 40 CFR 125.100.

I. The plan is considered a report that shall be available to the public under Section 308(b) of the CWA. The permittee may claim portions of the plan as confidential business information, including any portion describing facility security measures.

J. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.

Construction Authorization

K. Authorization is hereby granted to construct treatment works and related equipment that may be required by the Storm Water Pollution Prevention Plan developed pursuant to this permit.

This Authorization is issued subject to the following condition(s).

1. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights thereunder.

2. The issuance of this authorization (a) does not release the permittee from any liability for damage to persons or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (b) does not take into consideration the structural stability of any units or part of this project; and (c) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or other applicable local law, regulations or ordinances.

3. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.

4. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of one acre or more of land area, are not covered by this authorization. The permittee shall contact the IEPA regarding the required permit(s).

REPORTING

L. The facility shall submit an annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part G of the Storm Water Pollution Prevention Plan of this permit. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s).

M. The first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.

N. Annual inspection reports shall be mailed to the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Annual Inspection Report
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

O. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.

Attachment H

Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L. 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24 Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8 Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

(3) Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(7) Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) Duty to provide information. The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency, upon request, copies of records required to be kept by this permit.

(9) Inspection and entry. The permittee shall allow an authorized representative of the Agency, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

(10) Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. This period may be extended by request of the Agency at any time.

(c) Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;

(2) The individual(s) who performed the sampling or measurements;

(3) The date(s) analyses were performed;

(4) The individual(s) who performed the analyses;

(5) The analytical techniques or methods used; and

(6) The results of such analyses.

(d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

(11) Signatory requirement. All applications, reports or information submitted to the Agency shall be signed and certified.

(a) Application. All permit applications shall be signed as follows:

(1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

(b) Reports. All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a); and

(2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and

(3) The written authorization is submitted to the Agency.

(c) Changes of Authorization. If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.

(12) Reporting requirements.

(a) Planned changes. The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility.

(b) Anticipated noncompliance. The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(e) Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

(2) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit to be reported within 24 hours.

The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(f) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (12)(c), (d), or (e), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12)(e).

(g) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

(13) Transfer of permits. A permit may be automatically transferred to a new permittee if:

(a) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;

(b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittees; and

(c) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

(14) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.

(3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or

(4) The level established by the Agency in this permit.

(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.

(15) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:

(a) Any new introduction of pollutants into that POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and

(b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

(c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(16) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:

(a) User charges pursuant to Section 204(b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;

(b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and

(c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

(17) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.

(18) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.

(19) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.

(20) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.

(21) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(22) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit shall, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(23) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.

(24) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.

(25) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board.

(26) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

(Rev. 3-13-98)

Exhibit 3

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

PAT QUINN, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

April 27, 2010

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

Re: Emerald Performance Materials / Polyone Corporation
NPDES Permit No. IL0001392
Modification of NPDES Permit (Without Public Notice)

Gentlemen:

The Illinois Environmental Protection Agency has reviewed the request for modification of the above-referenced NPDES Permit as stated in your letter of June 10, 2008. The final decision of the Agency is to modify the Permit as follows:

The permittee and facility name and address has been modified to include both Emerald Performance Products and Polyone Corporation.

Enclosed is a copy of the modified Permit. Because the changes made in the permit were minor, no formal Public Notice of the modification will be issued.

Should you have any question or comments regarding the above, please contact Mark E. Liska of my staff.

Sincerely,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:MEL:06110901.bah

Attachments: Draft Permit, Public Notice/Fact Sheet

cc: Records Unit
Compliance Assurance Section
Peoria Region
US EPA
PolyOne Corporation

NPDES Permit No. IL0001392

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Modified (NPDES) Permit

Expiration Date: April 30, 2012

Issue Date: February 9, 2007
Effective Date:May 1, 2007
Modification Date: April 27, 2010

Names and Addresses of Permittees:

Emerald Performance Materials
1550 County Road 1450 N
Henry, Illinois 61537
AND
PolyOne Corporation
1546 County Road 1450 N
Henry, Illinois 61537

Facility Names and Addresses:

Emerald Performance Materials
1550 County Road 1450 N
Henry, Illinois 61537
AND
PolyOne Corporation
1546 County Road 1450 N
Henry, Illinois 61537
(Marshall County)

Discharge Number and Name:		Receiving Waters:
A01	Process Waste, Cooling Tower Blowdown, Sanitary Waste, Process Water Production Waste, Boiler Blowdown, Demineralizer Waste and Stormwater	Illinois River
B01	Stormwater, Non-contact Cooling Water, Lime Softening and Demineralizer Waste	Illinois River
001	Combined Discharges from Outfall A01 and B01	Illinois River
002 - 006	Stormwater	Illinois River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittees are not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:MEL:06110901.bah

NPDES Permit No. IL0001392

Effluent Limitations and Monitoring

1. From the modification date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall(s): A01* DAF = 0.917 MGD

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Flow (MGD)					Daily	Continuous
pH	See Special Condition 1				5/Week	Grab
BOD_5	183.5	477	20	40	5/Week	Composite
Total Suspended Solids	229.35	596.3	25	50	5/Week	Composite
Fecal Coliform	See Special Condition 2				1/Month	Grab
Temperature	See Special Condition 3				Daily	Continuous
Chromium (Total)	7.15	17.83	1	2	1/Year	Composite
Copper		2.56		0.215	1/Year	Composite
Cyanide	0.764	2.39	0.1	0.2	1/Year	Grab
Lead	2	4.3	0.2	0.4	1/Year	Composite
Nickel	7.64	23.9	1	2	1/Year	Composite
Zinc	6.76	16.8	1	2	1/Year	Composite
Acenaphthene	0.142	0.38	0.022	0.059	1/Year	Grab
Acrylonitrile	0.618	1.558	0.096	0.242	1/Year	Grab
Benzene	0.238	0.876	0.037	0.136	1/Year	Grab
Carbon Tetrachloride	0.116	0.245	0.018	0.038	1/Year	Grab
Chlorobenzene	0.097	0.18	0.015	0.028	1/Year	Grab
1,2,4-Trichlorobenzene	0.438	0.901	0.068	0.14	1/Year	Grab
Hexachlorobenzene	0.097	0.18	0.015	0.028	1/Year	Grab
1,2-Dichloroethane	0.438	1.359	0.068	0.211	1/Year	Grab
1,1,1-Trichloroethane	0.135	0.348	0.021	0.054	1/Year	Grab
Hexachloroethane	0.135	0.348	0.021	0.054	1/Year	Grab
1,1-Dichloroethane	0.142	0.38	0.022	0.059	1/Year	Grab
1,1,2-Trichloroethane	0.135	0.348	0.021	0.054	1/Year	Grab
Chloroethane	0.67	1.726	0.104	0.268	1/Year	Grab

NPDES Permit No. IL0001392

Effluent Limitations and Monitoring

1. From the modification date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Continue Outfall(s): A01* DAF = 0.917 MGD

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Chloroform	0.135	0.296	0.021	0.046	1/Quarter	Grab
2-Chlorophenol	0.2	0.631	0.031	0.098	1/Year	Grab
1,2-Dichlorobenzene	0.496	1.049	0.077	0.163	1/Year	Grab
1,3-Dichlorobenzene	0.2	0.283	0.031	0.044	1/Year	Grab
1,4-Dichlorobenzene	0.097	0.18	0.015	0.028	1/Year	Grab
1,1-Dichloroethylene	0.103	0.161	0.016	0.025	1/Year	Grab
1,2-Trans Dichloroethylene	0.135	0.348	0.021	0.054	1/Year	Grab
2,4-Dichlorophenol	0.251	0.721	0.039	0.112	1/Year	Grab
1,2-Dichloropropane	0.985	1.481	0.153	0.23	1/Year	Grab
1,3-Dichlrorpropylene	0.187	0.283	0.029	0.044	1/Year	Grab
2,4-Dimethylphenol	0.116	0.232	0.018	0.036	1/Year	Grab
2,4-Dinitrophenol	0.728	1.835	0.113	0.285	1/Year	Grab
2,6-Dinitrotoluene	1.642	4.127	0.255	0.641	1/Year	Grab
Ethylbenzene	0.206	0.695	0.032	0.108	1/Year	Grab
Fluoranthene	0.161	0.438	0.025	0.068	1/Year	Grab
Methylene Chloride	0.258	0.573	0.04	0.089	1/Month	Grab
Methyl Chloride	0.554	1.223	0.086	0.19	1/Year	Grab
Hexachlorobutadiene	0.129	0.315	0.02	0.049	1/Year	Grab
Naphthalene	0.142	0.38	0.022	0.059	1/Year	Grab
Nitrobenzene	0.174	0.438	0.027	0.068	1/Year	Grab
2-Nitrophenol	0.264	0.444	0.041	0.069	1/Year	Grab
4-Nitrophenol	0.464	0.798	0.072	0.124	1/Year	Grab
2,4-Dinitrophenol	0.457	0.792	0.071	0.123	1/Year	Grab
4,6-Dinitro-o-Cresol	0.502	1.783	0.078	0.277	1/Year	Grab

NPDES Permit No. IL0001392

Effluent Limitations and Monitoring

1. From the modification date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Continue Outfall(s): A01* DAF = 0.917 MGD

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Phenol	0.097	0.167	0.015	0.026	1/Year	Grab
Bis(2-ethylhexyl)phthalate	0.663	1.796	0.103	0.279	1/Year	Grab
Di-n-butyl phthalate	0.174	0.367	0.027	0.057	1/Year	Grab
Diethyl phthalate	0.522	1.307	0.081	0.203	1/Year	Grab
Dimethyl phthalate	0.122	0.303	0.019	0.047	1/Year	Grab
Benzo(a)anthracene	0.142	0.38	0.022	0.059	1/Year	Grab
Benzo(a)pyrene	0.148	0.393	0.023	0.061	1/Year	Grab
3,4-Benzofluoranthene	0.148	0.393	0.023	0.061	1/Year	Grab
Benzo(k)fluoranthene	0.142	0.38	0.022	0.059	1/Year	Grab
Chrysene	0.142	0.38	0.022	0.059	1/Year	Grab
Acenaphthylene	0.142	0.38	0.022	0.059	1/Year	Grab
Anthracene	0.142	0.38	0.022	0.059	1/Year	Grab
Fluorene	0.142	0.38	0.022	0.059	1/Year	Grab
Phenanthrene	0.142	0.38	0.022	0.059	1/Year	Grab
Pyrene	0.161	0.431	0.025	0.067	1/Year	Grab
Tetrachloroethylene	0.142	0.361	0.022	0.056	1/Year	Grab
Toluene	0.167	0.515	0.026	0.08	1/Year	Grab
Trichloroethylene	0.135	0.348	0.021	0.054	1/Year	Grab
Vinyl Chloride	0.67	1.726	0.104	0.268	1/Year	Grab

*See Special Conditions 4, 9 and 14.

NPDES Permit No. IL0001392

Effluent Limitations and Monitoring

1. From the modification date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l			
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Outfall: 801* DAF = 0.03 MGD						
Flow (MGD)					Measure When Discharging	Estimate
BOD_5					1/Month	Grab
Total Suspended Solids					1/Month	Grab
Total Iron					1/Month	Grab
pH					1/Month	Grab
COD					1/Month	Grab

*See Special Condition 5.

Outfall: 001* DAF = 0.917 MGD					
Flow (MGD)				Daily	Calculate
Ammonia (as N)**	1848.6		155	5/Week	Composite

*See Special Condition 6.
**See Special Condition 18.

Outfalls: 002 through 006*

*See Special Condition 20.

NPDES Permit No. IL0001392

Special Conditions

SPECIAL CONDITION 1. The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 2. The daily maximum fecal coliform count shall not exceed 400 per 100 ml.

SPECIAL CONDITION 3. Discharge of wastewater from this facility must not alone or in combination with other sources cause the receiving stream to violate the following thermal limitations at the edge of the mixing zone which is defined by Section 302.211, Illinois Administration Code, Title 35, Chapter 1, Subtitle C, as amended:

A. Maximum temperature rise above natural temperature must not exceed 5°F (2.8°C).

B. Water temperature at representative locations in the main river shall not exceed the maximum limits in the following table during more than one (1) percent of the hours in the 12-month period ending with any month. Moreover, at no time shall the water temperature at such locations exceed the maximum limits in the following table by more than 3°F (1.7°C). (Main river temperatures are temperatures of those portions of the river essentially similar to and following the same thermal regime as the temperatures of the main flow of the river.)

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
°F	60	60	60	90	90	90	90	90	90	90	90	60
°C	16	16	16	32	32	32	32	32	32	32	32	16

C. The monthly maximum value shall be reported on the DMR form.

SPECIAL CONDITION 4. For the purpose of this permit, the discharge form outfall A01 is limited to process waste water, cooling tower blowdown, sanitary waste, process water production waste and stormwater from both facilities and the Poly One Corporation's demineralizer waste and boiler blowdown and will serve as an alternate route for waters discharged normally from outfall B01, the discharge shall be free from other wastewater discharges. Sampling for the monitoring requirements for the discharge shall be taken prior to mixing with the discharge from outfall B01.

SPECIAL CONDITION 5. For the purpose of this permit, the discharge from outfall B01 is limited to stormwater, non-contact cooling water, lime softening and demineralizer waste, free from other waste water discharges. Sampling for the monitoring requirements for the discharge shall be taken prior to mixing with the discharge from outfall A01.

SPECIAL CONDITION 6. For the purpose of this permit, the discharge from outfall 001 is limited to the discharges from outfalls A01 and B01, free from other waste water dischargers. Sampling for the monitoring requirements for the discharge shall be taken at a point representative of the discharge and prior to entry into the receiving stream or mixture with the City of Henry POTW's effluent.

SPECIAL CONDITION 7. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

SPECIAL CONDITION 8. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, http://www.epa.state.il.us/water/edmr/index.html.

NPDES Permit No. IL0001392

Special Conditions

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using eDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 9. Quarterly sampling for outfall A01 shall be performed in March, June, September and December with analytical results submitted in April, July, October and January. Yearly sampling for outfall A01 shall be performed in March with sample results submitted in April.

SPECIAL CONDITION 10. Flow shall be reported in units of Million Gallons per Day (MGD) as a monthly average and daily maximum value.

SPECIAL CONDITION 11. The provisions contained in 40 CFR 122.41 m and n are applicable to this permit.

SPECIAL CONDITION 12. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

SPECIAL CONDITION 13. If an applicable water quality standard or limitation is developed under 302.210 of 35 Ill. Adm. Code and that water quality standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited din the NPDES Permit and found in the effluent at a level of concern, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition after Public Notice and opportunity for hearing.

SPECIAL CONDITION 14. The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) 001.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Unless substitute tests are pre-approved; the following tests are required:

   a. Fish - 96 hour static LC_{50} Bioassay using fathead minnows (Pimephales promelas).

   b. Invertebrate 48-hour static LC_{50} Bioassay using Ceriodaphnia.

2. Testing Frequency - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Samples must be collected in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit.

3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Reports are due to the IEPA no later than the 16th, 13th, 10th, and 7th month prior to the expiration date of this Permit.

4. Toxicity Reduction Evaluation - Should the results of the biomonitoring program identify toxicity, the IEPA may require that the Permittee prepare a plan for toxicity reduction evaluation and identification. This plan shall be developed in accordance with Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluation (TREs), EPA/600/2-88/070, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan for toxicity reduction evaluation within ninety (90) days following notification by the IEPA.

The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 15. The Permittee must continue to investigate production methods and technologies that generate less ammonia in the Permittee's discharge into the Illinois River. Where practicable, the Permittee must substitute current methods or technologies with new ones so long as the substitution generates less ammonia in the Permittee's discharge.

SPECIAL CONDITION 16. The Permittee must perform any reasonable test of new technologically or economically reasonable production methods or materials applicable to the specialty chemicals manufacturing process, which may reduce ammonia concentration in the discharge from the Permittee's facility which the Illinois Environmental Protection Agency (Agency) specifically requests in writing that they do.

SPECIAL CONDITION 17. The Permittee must prepare and submit each year an annual report summarizing the activities and results of the required investigations found in Special Conditions 15, 16 and 18. The annual report shall be submitted each December to the address identified in Special Condition 8.

SPECIAL CONDITION 18. Emerald must monitor ammonia nitrogen in the Illinois River on a quarterly basis to demonstrate compliance with the applicable ammonia water quality standards in accordance with 35 Ill. Adm. Code 302.212. The monitoring must commence within 30 days of the installation of the multi-port diffuser and continue until the termination of the adjusted standard. The monitoring results must be reported to the Agency in the annual report described in Special Condition 17.

SPECIAL CONDITION 19. The provisions of the Adjusted Standard, AS 02-5, are incorporated in this permit by reference.

SPECIAL CONDITION 20.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

A. A storm water pollution prevention plan shall be developed by the permittee for the storm water associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of storm water discharges associated with the industrial activity at the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit.

B. The plan shall be completed within 180 days of the effective date of this permit. Plans shall provide for compliance with the terms of the plan within 365 days of the effective date of this permit. The owner or operator of the facility shall make a copy of the plan available to the Agency at any reasonable time upon request. [Note: If the plan has already been developed and implemented it shall be maintained in accordance with all requirements of this special condition.]

C. The permittee may be notified by the Agency at any time that the plan does not meet the requirements of this condition. After such notification, the permittee shall make changes to the plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided, the permittee shall have 30 days after such notification to make the changes.

D. The discharger shall amend the plan whenever there is a change in construction, operation, or maintenance which may affect the discharge of significant quantities of pollutants to the waters of the State or if a facility inspection required by paragraph G of this condition indicates that an amendment is needed. The plan should also be amended if the discharger is in violation of any conditions of this permit, or has not achieved the general objective of controlling pollutants in storm water discharges. Amendments to the plan shall be made within the shortest reasonable period of time, and shall be provided to the Agency for review upon request.

E. The plan shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from storm water outfalls at the facility. The plan shall include, at a minimum, the following items:

1. A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate.

2. A site map showing:

   i. The storm water conveyance and discharge structures;

   ii. An outline of the storm water drainage areas for each storm water discharge point;

   iii. Paved areas and buildings;

   iv. Areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate significant quantities of dust or particulates.

   v. Location of existing storm water structural control measures (dikes, coverings, detention facilities, etc.);

   vi. Surface water locations and/or municipal storm drain locations

   vii. Areas of existing and potential soil erosion;

   viii. Vehicle service areas;

   ix. Material loading, unloading, and access areas.

3. A narrative description of the following:

   i. The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;

   ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;

   iii. Existing structural and non-structural control measures to reduce pollutants in storm water discharges;

   iv. Industrial storm water discharge treatment facilities;

   v. Methods of onsite storage and disposal of significant materials;

4. A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities.

5. An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings.

6. A summary of existing sampling data describing pollutants in storm water discharges.

F. The plan shall describe the storm water management controls which will be implemented by the facility. The appropriate controls shall reflect identified existing and potential sources of pollutants at the facility. The description of the storm water management controls shall include:

1. Storm Water Pollution Prevention Personnel - Identification by job titles of the individuals who are responsible for developing, implementing, and revising the plan.

2. Preventive Maintenance - Procedures for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.

3. Good Housekeeping - Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.

4. Spill Prevention and Response - Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, spill clean up equipment and procedures should be identified, as appropriate. Internal notification procedures for spills of significant materials should be established.

5. Storm Water Management Practices - Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants, measures to remove pollutants from storm water discharge shall be implemented. In developing the plan, the following management practices shall be considered:

   i. Containment - Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm water runoff;

   ii. Oil & Grease Separation - Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges;

   iii. Debris & Sediment Control - Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges;

   iv. Waste Chemical Disposal - Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.

   v. Storm Water Diversion - Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination;

   vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.

6. Sediment and Erosion Prevention - The plan shall identify areas which due to topography, activities, or other factors, have a high potential for significant soil erosion and describe measures to limit erosion.

7. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.

8. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.

G. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.

Special Conditions

H. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated thereunder, and Best Management Programs under 40 CFR 125.100.

I. The plan is considered a report that shall be available to the public under Section 308(b) of the CWA. The permittee may claim portions of the plan as confidential business information, including any portion describing facility security measures.

J. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.

Construction Authorization

K. Authorization is hereby granted to construct treatment works and related equipment that may be required by the Storm Water Pollution Prevention Plan developed pursuant to this permit.

This Authorization is issued subject to the following condition(s).

1. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights thereunder.

2. The issuance of this authorization (a) does not release the permittee from any liability for damage to persons or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (b) does not take into consideration the structural stability of any units or part of this project; and (c) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or other applicable local law, regulations or ordinances.

3. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.

4. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of one acre or more of land area, are not covered by this authorization. The permittee shall contact the IEPA regarding the required permit(s).

REPORTING

L. The facility shall submit an annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part G of the Storm Water Pollution Prevention Plan of this permit. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s).

M. The first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.

N. Annual inspection reports shall be mailed to the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Annual Inspection Report
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

O. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.

Attachment H

Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L. 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24 Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8 Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

(3) Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(7) Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) Duty to provide information. The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency, upon request, copies of records required to be kept by this permit.

(9) Inspection and entry. The permittee shall allow an authorized representative of the Agency, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

(10) Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. This period may be extended by request of the Agency at any time.

(c) Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;

(2) The individual(s) who performed the sampling or measurements;

(3) The date(s) analyses were performed;

(4) The individual(s) who performed the analyses;

(5) The analytical techniques or methods used; and

(6) The results of such analyses.

(d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

(11) Signatory requirement. All applications, reports or information submitted to the Agency shall be signed and certified.

(a) Application. All permit applications shall be signed as follows:

(1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

(b) Reports. All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a); and

(2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and

(3) The written authorization is submitted to the Agency.

(c) Changes of Authorization. If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.

(12) Reporting requirements.

(a) Planned changes. The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility.

(b) Anticipated noncompliance. The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(e) Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

(2) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit to be reported within 24 hours.

The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(f) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (12)(c), (d), or (e), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12)(e).

(g) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

(13) Transfer of permits. A permit may be automatically transferred to a new permittee if:

(a) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;

(b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittees; and

(c) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

(14) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.

(3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or

(4) The level established by the Agency in this permit.

(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.

(15) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:

(a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and

(b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

(c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(16) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:

(a) User charges pursuant to Section 204(b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;

(b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and

(c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

(17) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.

(18) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.

(19) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.

(20) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.

(21) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(22) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit shall, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(23) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.

(24) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.

(25) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board.

(26) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.