

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

IN THE MATTER OF:	)	
	)	
WATER QUALITY STANDARDS AND	)	R08-9 Subdocket D
EFFLUENT LIMITATIONS FOR THE	)	(Rulemaking – Water)
CHICAGO AREA WATERWAY SYSTEM	)	
AND LOWER DES PLAINES RIVER	)	
PROPOSED AMENDMENTS TO 35 ILL.	)	
ADM. CODE 301, 302, 303, and 304	)	

**NOTICE OF FILING**

TO:

John Therriault, Clerk  
 Illinois Pollution Control Board  
 James R. Thompson Center  
 100 West Randolph Street, Suite 11-500  
 Chicago, IL 60601

Marie Tipsord, Hearing Officer  
 Illinois Pollution Control Board  
 James R. Thompson Center  
 100 West Randolph Street, Suite 11-500  
 Chicago, IL 60601

Persons included on the attached Service List

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board the STEPAN COMPANY'S COMMENTS ON POLLUTION CONTROL BOARD'S PROPOSED RULE, FIRST NOTICE, a copy of which is herewith served upon you.

STEPAN COMPANY

DATE: November 21, 2014

/s/ Thomas W. Dimond  
 Thomas W. Dimond

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**CERTIFICATE OF SERVICE**

I, the undersigned, certify that on this 21st day of November 2014, I have served electronically the attached STEPAN COMPANY'S COMMENTS ON POLLUTION CONTROL BOARD'S PROPOSED RULE, FIRST NOTICE, and NOTICE OF FILING upon the following person:

John Therriault, Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph Street, Suite 11-500  
Chicago, IL 60601

and by U.S. Mail, first class postage prepaid, to the following persons:

Marie Tipsord, Hearing Officer  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph Street, Suite 11-500  
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The participants listed on the attached  
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/s/ Thomas W. Dimond

Thomas W. Dimond

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ADM. CODE 301, 302, 303, and 304	)	

**STEPAN COMPANY'S COMMENTS ON POLLUTION CONTROL BOARD'S PROPOSED RULE, FIRST NOTICE**

Stepan Company ("Stepan"), by and through its attorneys, Ice Miller LLP, submits the following Comments on the Pollution Control Board's ("Board") Proposed Rule, First Notice dated September 18, 2014 (hereafter, "*First Notice*").

Stepan has actively participated in this proceeding since its inception. The changes in numeric and narrative water quality criteria proposed by the Illinois Environmental Protection Agency (the "Agency") and those proposed by the Board in the *First Notice* could significantly impact Stepan. In particular, Stepan's Millsdale plant discharges to the water segment commonly referred to in these proceedings as the Upper Dresden Island Pool ("UDIP") of the Lower Des Plaines River ("LDPR") and changes to the numeric criteria for that segment could impact Stepan. Consistent with its participation in these proceedings, Stepan submits these comments on the Board's proposed amendments to the applicable regulations.

In the *First Notice*, the Board found that the "existing General Use temperature standards provide the most appropriate alternative for protecting aquatic life in UDIP, CAWS ALU A, and CAWS ALU B waters." *First Notice*, 211. In doing so, it rejected the more stringent standards proposed by the Agency and the Environmental Groups. Those proposals "would result in the application of more stringent standards to waters designated for the protection of lower aquatic

life use than General Use waters," which the Board found "would be inappropriate." *Id.*, 204. The Board also recognized that the "methodology and the science used by MBI [Midwest Biodiversity Institute] in developing the thermal criteria options relied upon by IEPA and the Environmental Groups" was "questionable." *Id.*, 205. There is more than ample evidence in the record supporting these conclusions, and Stepan agrees with them.

The Board also rejected proposals submitted by Midwest Generation, and supported by Stepan and other participants, stating that they were not supported by sufficiently recent data and that the Board did not believe they would protect aquatic life expected to be present in UDIP waters. *Id.*, 210. The criticism that those proposals were not supported by more recent data seems unfair. One proposal was supported by the analysis of fish sampling data from the Dresden Pool between 1994 and 2005. *See* Midwest Generation's Post-Hearing Comments, R08-9(D), Public Comment ("PC") 1403 (April 30, 2014) (hereafter, "PC 1403"), Appendix C (Figures 2-5). In contrast, the Agency proposals were not supported by any *in situ* sampling at all but rather by laboratory studies, many of which were decades old and of questionable value due to various study design issues raised during the questioning of Mr. Yoder. Moreover, the temperature criteria proposed by EA Engineering in its August 2007 report were based on field data with a total of 77 different fish species, including all 27 species on the Representative Aquatic Species list advocated by MBI for the modified use applicable to the UDIP. *See* PC 1403, Appendix C (letter dated August 16, 2007 to Toby Frevert, page 1).

The Board further criticized Midwest Generation's proposals because they did not take into account recent changes in the thermal regime of the CAWS or the UDIP, including the installation of helper cooling towers at the Joliet plant or the closing of the Crawford and Fisk plants. *First Notice*, 209. At least as to the UDIP, these criticisms have no foundation. There is

no evidence in the record that the discharge from the Crawford and Fisk stations had any material impact on the temperature regime in the UDIP. Those plants are located many miles upstream of the UDIP, giving the effluent from those former plants ample time to cool before reaching the UDIP. Nor is there any evidence that the helper cooling towers at Joliet had any material impact. Moreover, the Board's criticism also ignores that the LDPR is a heavily effluent-dominated stream for which wastewater treatment plant discharges comprise 90% of stream flow and, during winter, almost the entire low flow. *See* Agency Statement of Reasons, Attachment A, p. 1-8. And, there is some evidence in the record that the discharge from the largest of those wastewater treatment plants (Stickney) has not always met the General Use numeric criteria that the Board now proposes to apply to the CAWS and the UDIP. *See* Agency Statement of Reasons, Attachment W, Table 1 (showing the discharge temperatures for the Stickney plant from 2001-2006 include maximums for December, January and February of 66.6°F, 62.4°F and 61.5°F, respectively, all of which exceed the Board's proposed maximum of 60°F). While the closing of some thermal discharge sources may impact the thermal regime of certain areas of the CAWS, the fact remains that wastewater effluent will be a dominant factor in establishing the temperature regime of the LDPR and UDIP waters. For all these reasons, Stepan disagrees that the standards proposed by Midwest Generation are not supported by relevant and recent data or that they would not protect aquatic life expected to be present in UDIP waters. Stepan further reserves its right to challenge the numeric temperature criteria in the *First Notice*, if finally adopted by the Board.

In a similar vein, the Board adopted numeric criteria for dissolved oxygen and chlorides equivalent to the General Use standards. Stepan also disagrees with these determinations and reserves its right to challenge those, or any other, numeric criteria in the *First Notice*, if finally



adopted by the Board. Having stated these positions, Stepan does not intend to re-argue the evidence already considered by the Board in reaching the *First Notice* proposal. Rather, Stepan limits its comments on the numeric criteria proposed in the *First Notice* to the manner in which the proposed regulatory language achieves the Board's apparent intentions and what appear to be some inadvertently incorrect subsection cross-references.

**I. Comments on Board's Proposed Numeric Criteria for Temperature, Section 302.408.**

Section 302.408(b) provides for limited excursion hours over the numeric criteria and establishes maximum limits above the numeric criteria. As proposed by the Board, the section would read as follows:

- (b) Water temperature shall not exceed the maximum limits in the applicable table in subsections (b), (c) and (d) below, during more than one percent of the hours in the 12-month period ending within any month. Moreover at no time shall the water temperature exceed the maximum limits in the applicable table that follows by more than 1.7° C (3.0 ° F).

*First Notice*, 234 (emphasis supplied). The reference to subsection (b) in the above emphasized language is circular, and the failure to reference subsection (e) of proposed Section 302.408 seems to make the excursion hours provision and maximum limits inapplicable to the UDIP waters. Stepan assumes these affects were unintended and resulted from the inclusion of subparagraph (a) of proposed Section 302.408, which applies solely to Bubbly Creek. Accordingly, Stepan suggests that the subsection references in the second line of subsection (b) of proposed Section 302.408 should be revised to refer to "subsections (c), (d) and (e) below."

In a similar vein, subsections (c), (d) and (e) of proposed Section 302.408 state that water temperatures in CAWS ALU A, CAWS and Brandon Pool ALU B, and UDIP waters, respectively, "shall not exceed the limits in the following table in accordance with subsection (a) . . ." *First Notice*, 234-35 (emphasis supplied). It seems apparent that the reference to

subsection (a) is intended to be a reference to subsection (b), i.e., the subsection on excursion hours and maximum limits. A reference to subsection (a) does not make sense because that subsection applies solely to Bubbly Creek. Changing the cross-reference to subsection (b) would also make proposed Section 302.408 consistent with the General Use standards in Section 302.211. Accordingly, Stepan suggests that subsections (c), (d) and (e) of proposed Section 302.408 should be revised to substitute a cross-reference to subsection (b) rather than subsection (a).

Stepan also observes that the table in subsection (e) of proposed Section 302.408 has an additional column that has been left blank in comparison to the tables in subsections (c) and (d) of the proposed section. This seems inadvertent, and Stepan suggests deleting the additional column in the table in subsection (e).

As a final comment on the proposed temperature standards, Stepan notes that the table headings in subsections (c), (d) and (e) of proposed Section 302.408 identify the numeric criteria as "Daily Maximum". This is different than the table of numeric values in the General Use standards which are not described as "Daily Maximum" or, indeed, provided with any descriptor. *Compare* 35 IAC 302.211(e). In addition, the proposed designation of these numeric values as Daily Maximum seems to overlap with the requirement of the second sentence of subsection (b), which states the maximum limits are the values in the tables plus 3°F. To eliminate the overlap with the requirements of subsection (b), Stepan suggests that the numeric criteria in the tables in subsections (c), (d) and (e) be designated as "Daily Average." This will provide a clear distinction between the maximum limit established in the second sentence of subsection (b) and the numeric limits in the following subsections and seems consistent with the intent of the General Use standards.

**II. Comments on Board's Proposed Numeric Criteria for Ammonia, Section 302.412.**

The Board's *First Notice* proposal for Section 302.412 regarding numeric criteria for ammonia appears to have certain incorrect cross-references. It appears that these incorrect cross-references arose because the Board modified the Agency's proposed regulatory language by adding subsection (a) to address Bubbly Creek.

In subsection (c)(2)(A) of proposed Section 302.412, the Board's proposal states, in part, "[d]uring the Early Life Stage Present period, as defined in subsection (e) . . . ." *First Notice*, 238 (emphasis supplied). The definition of Early Life Stage Present appeared in subsection (e) of proposed Section 302.412 in the Agency's Statement of Reasons. *See* Agency Statement of Reasons, Proposed Text of Section 302.412 (not paginated). But, that definition appears in subsection (f) in the Board's proposed language. *First Notice*, 240. Likewise, subsection (c)(2)(B) of proposed Section 302.412 in the *First Notice* states "[d]uring the Early Life Stage Absent period, as defined in subsection (e) . . . ." *id.* at 239 (emphasis supplied), whereas the definition of Early Life Stage Absent appears in subsection (f) in the Board's *First Notice*. *Id.* at 240. Accordingly, the cross-references to subsection (e) in proposed subsections 302.412(c)(2)(A) and 302.412(c)(2)(B) should be changed to subsection (f).

Subsections (d)(2) and (d)(3) of proposed Section 302.412 make reference to subsection (d) of the same proposed section in relationship to the determination of attainment of the chronic and sub-chronic standards, respectively, for ammonia. *Id.* at 239. But, the methods for determining attainment of the chronic and sub-chronic standards appear in subsection (e) in the Board's *First Notice*. *Id.* at 240. Proposed subsection 302.412(e) in the Board's *First Notice* is identical to proposed subsection 302.412(d) in the Agency's Statement of Reasons, and it appears the cross-references were not updated for the Board's addition of proposed subsection

302.412(a) solely addressing Bubbly Creek, which was absent from the Agency's proposal in the Statement of Reasons. Accordingly, the cross-references to subsection (d) in proposed subsections 302.412(d)(2) and 302.412(d)(3) should be changed to subsection (e).

### CONCLUSION

Stepan appreciates the efforts of the Board and its staff to review the proposals and extensive record presented in Subdocket D and the opportunity to review and comment on the Board's *First Notice*. Stepan disagrees with some of the Board's conclusions related to the appropriate numeric criteria to be applied to the Upper Dresden Island Pool and reserves the right to challenge those numeric criteria if finally adopted by the Board. To the extent the Board proceeds with its *First Notice* proposal, Stepan requests that the Board consider the comments herein.

STEPAN COMPANY

Date: November 21, 2014

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