

ILLINOIS POLLUTION CONTROL BOARD
December 21, 2000

IN THE MATTER OF:)
)
PETITION OF THE CITY OF) AS 99-1
BELLEVILLE FOR AN ADJUSTED) (Adjusted Standard - Water)
STANDARD FROM 35 ILL. ADM. CODE)
306.305)

ORDER OF THE BOARD (by G.T. Girard):

On July 20, 1998, the City of Belleville (Belleville) located in St. Clair County, Illinois, filed a request for an adjusted standard from the Board's combined sewer overflow (CSO) disinfection requirements. Belleville is requesting the adjusted standard for CSO's at the 88th Street Lift Station that discharges into an unnamed tributary of Powdermill Creek.

On August 3, 1998, the certificate of publication was filed. On August 6, 1998, the Board directed Belleville to file an amended petition. On September 2, 1998, Belleville filed a motion to amend the petition, which the Board denied as the amended petition had not adequately addressed the informational requirements of 35 Ill. Adm. Code 106.705. The Board extended the time to file the amended petition in an order on October 15, 1998. On October 28, 1998, an amended petition was filed, which the Board accepted on November 19, 1998. On April 5, 1999, petitioner filed a second amended petition and on August 27, 1999, a third amended petition was filed. The Illinois Environmental Protection Agency (Agency) filed a recommendation on August 18, 2000.¹

The Board's responsibility in this matter arises from the Environmental Protection Act (Act) (415 ILCS 5/1 *et seq.* (1998)). The Board is charged to "determine, define and implement the environmental control standards applicable in the State of Illinois" (415 ILCS 5/5(b) (1998)) and to "grant . . . an adjusted standard for persons who can justify such an adjustment" (415 ILCS 5/28.1(a) (1998)).

For the reasons discussed below, the Board finds that there is insufficient information in this record to grant Belleville's request for an adjusted standard from the Board's regulations at 35 Ill. Adm. Code 305.306(b). The Board will send this matter to hearing so that deficiencies in the record can be bolstered.

STATUTORY AND REGULATORY BACKGROUND

¹ The July 20, 1998 petition will be cited as Or. Pet. at ___. The amended petition of August 27, 1999, will be cited as Pet. at ___. The Agency Recommendation will be cited as Ag. Rec. at ___.

Belleville seeks an adjusted standard from the Board's CSO disinfection requirements at 35 Ill. Adm. Code 306.305(b). Specifically, Section 306.305(b) provides:

All combined sewer overflows and treatment plant bypasses shall be given sufficient treatment to prevent pollution, or the violation of applicable water quality standards unless an exception has been granted by the Board pursuant to Subpart D. Sufficient treatment shall consist of the following:

* * *

- b) Additional flows, as determined by the Agency but not less than ten times the average dry weather flow for the design year, shall receive a minimum of primary treatment and disinfection with adequate retention time.

The general procedures that govern an adjusted standard proceeding are found at Section 28.1 of the Act (415 ILCS 5/28.1 (1998)) and the Board's procedural rules at 35 Ill. Adm. Code 106. Section 28.1 of the Act requires that the adjusted standard procedure be consistent with Section 27(a). Under Section 27(a) of the Act, the Board is required to take the following factors into consideration: the existing physical conditions, the character of the area involved, including the character of the surrounding land uses, zoning classifications, the nature of the receiving body of water, and the technical reasonability and economic reasonableness of measuring or reducing a particular type of pollution. 415 ILCS 5/27(a) (1998).

Since the Board's CSO disinfection requirements at Section 306.305(b) do not specify a level of justification from an adjusted standard, the petitioner must justify the adjusted standard in accordance with the requirements of Section 28.1(c)(1) through (c)(4) of the Act, (415 ILCS 5/28.1(c) (1998)). Section 28.1(c)(1) through (c)(4) provide:

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.

ADJUSTED STANDARD PETITION

Belleville is requesting an adjusted standard for its combined sewer overflows at the 88th Street Lift Station that discharges to an unnamed tributary of Powdermill Creek, which

Belleville characterizes as a dry ditch. Powdermill Creek is a small stream with a drainage basin of approximately five miles that flows into the Harding Ditch, then into Prairie duPont Creek and finally the Mississippi River. Ag. Rec. at 2.

Currently, Belleville is in the process of replacing the original 88th Street Lift Station, which serves the western part of Belleville, with an estimated population of 3,400. Pet. at 7. As a part of the replacement, Belleville has completed the construction in January 1999 of a swirl concentrator for primary treatment of wet weather flows. Pet. at 3-4. The requested relief would allow Belleville to forego disinfection of the discharge from the 88th Street Lift Station swirl concentrator during excessive wet weather conditions. Pet. at 1. While Belleville has completed the construction of the concentrator, it has decided not to begin operation until the Board rules on its adjusted standard request. Pet. at 4.

Belleville maintains that the swirl concentrator will not be put on line until the Board rules on this adjusted standard petition because of language in the Agency construction permit for the swirl concentrator. Pet. at 6. Specifically, Belleville cites special condition 4 of the existing Agency construction permit which states:

The permittee to construct and own shall submit an acceptable petition to the Pollution Control Board for relief from disinfection or submit plans and specifications along with a request for a supplemental permit to include a disinfection system to the Agency within 90 days of the date of this permit. Should the Board deny the permittee's petition for relief, the permittee shall submit an application for a permit to construct disinfection equipment within 90 days of relief denial, and the permittee shall begin construction within 90 days of permit approval. Pet at 6-7.

At present, Belleville discharges untreated effluent from the 88th Street Lift Station to an unnamed tributary to Powdermill Creek during wet weather flows. Belleville's petition identifies Powdermill Creek as a usually dry ditch less than one foot in depth during average flow. Pet. at 26. Powdermill Creek traverses through a residential neighborhood, more than 400 feet from the nearest house. Belleville describes the area along the creek as sparsely populated, heavily wooded, and not easily accessible. Pet. at 28. Appendix A and Exhibit C of Belleville's August 27, 1999 amended petition include partial maps and annotated photos of the outfall and nearby Powdermill Creek.

Based on a recreational assessment survey conducted on the receiving stream for the 88th Street Lift Station effluent discharge, Belleville states that the receiving stream does not support and does not have the potential to support primary full body or recreational contact activities. Pet. at 26-28. Belleville notes that in the first adjusted standard petition filed July 20, 1998, Belleville reported a citizen complaint about the outfall. In the summer of 1997, Mr. Gompers, a property owner who resides adjacent to the 88th Street Lift Station site, complained to both the Agency and the United States Environmental Protection Agency about potential health hazards to his children from the CSO outfall discharge. Mr. Gompers claimed

that his children play in the ditch where the CSO discharges during wet weather (Or. Pet. at 3).

Belleville has investigated two types of disinfection. The first, ultraviolet disinfection was not viable because the effluent from the swirl concentrator would be too turbid to allow for proper light penetration, according to Belleville. Pet. at 17. Secondly, Belleville examined chlorine disinfection and two types of chlorine were considered. The first alternative was chlorine gas stored on site in one-ton cylinders. This option was considered not viable by Belleville because the area is zoned for single family residences. The second option utilized sodium hypochlorite. The estimated cost for constructing a sodium hypochlorite disinfection system is \$293,437 with an annual estimated cost for operation and maintenance of \$7,000. Pet. at 18.

Belleville argues that the cost of disinfection is not justified based on the negligible benefit it would provide to the surrounding area. Pet. at 29. Belleville further claims that the economic and technical hardship of installing a disinfection system, in addition to the swirl concentrator, outweighs any benefit to the environment given the limited use and accessibility of the receiving waters.

In summary, Belleville argues that three factors weigh in favor of granting an adjusted standard. First, the receiving stream does not have potential for primary contact activities. Second, designing, constructing and operating a fully automated chlorine disinfection system at an unmanned location is technically difficult. Third, the high costs of building, operation and maintaining the disinfection facilities to achieve the disinfection requirements do not justify the benefit of following the disinfection requirement. Pet. at 32.

Belleville proposes that the Board adopt the following language for the adjusted standard:

Either: the City of Belleville, Illinois, is granted an adjustment to the Disinfection Requirements of 35 Ill. Admin. Code 306.305 (b). This adjustment allows the City of Belleville to discharge combined sewer overflow during wet-weather conditions at it's 88th Street Lift Station, which will be given primary treatment via a Swirl Concentrator, without disinfecting such flows.; or,

the City of Belleville is granted a temporary adjustment to the Disinfection Requirements of 35 Ill. Admin. Code 306.305(b). This adjustment allows the City to put the Swirl Concentrator into operation for a period of 12-months without disinfecting the discharge yet gather BOD, Suspended Solids, E-Coli, Fecal Coliform, Total Bacteria and Dissolved Oxygen Concentrations during wet-weather events. Pet. at 23.

AGENCY'S RECOMMENDATION

The Agency recommends that the Board grant the requested relief subject to certain conditions. Ag. Rec. at 4. These conditions include limiting the adjusted standard to a five-year period, and requiring Belleville to submit to the Agency a long-term CSO control plan to achieve compliance with applicable standards at the expiration of the temporary adjusted standard. Ag. Rec. at 7. In addition, the Agency suggests that the Board require Belleville to create a barrier along the receiving stream to limit public access and to educate nearby residents on the hazards associated with the CSO. *Id.*

Regarding the five-year limitation, the Agency states that Belleville is required to comply with the generally applicable CSO regulations under the national CSO Policy promulgated by the United States Environmental Protection Agency (USEPA). Ag. Rec. at 12-13. The CSO Policy establishes a consistent national approach for controlling discharges from CSOs through the National Pollution Discharge Elimination System (NPDES) permit program to meet the health and environmental objectives of the Clean Water Act (CWA). *Id.* The CSO Policy states that permittees should submit their long-term CSO control plan generally within 2 years of the inclusion of the NPDES permit provision pertaining to the National CSO Policy.² However, the policy allows NPDES authorities to establish longer timetables when site-specific factors complicate the planning process, such as in this case where the Agency has allowed the Belleville a five-years period. Further, the CSO Policy allows the permittees and permit authorities to consider innovative and alternative approaches and technologies to ultimately achieve compliance with the applicable standards. *Id.*

In addition, the Agency believes that creation of barriers to limit public access to the receiving stream, and education of local residents on risks associated with CSOs are necessary to minimize human risks associated with disinfection exemptions in residential areas. Ag. Rec. at 8-9. In this regard, the Agency notes that the recreational assessment survey conducted by the petitioner documents that two out of five respondents have indicated that they use the receiving stream for some type of recreational activity. Ag. Rec. at 8. Belleville has not responded to any of the conditions recommended by the Agency.

The Agency proposes that the Board adopt the following language for the requested adjusted standard:

The City of Belleville is granted temporary adjustment to the disinfection requirement of 35 Ill. Admin. Code 306.305(b). This adjustment allows the City of Belleville to discharge combined sewer overflows during wet weather conditions from its 88th Street Lift Station in excess of the first flush without disinfecting such flows for the next five years. The City of Belleville shall submit a long-term control plan to the Illinois EPA that will achieve compliance

² Special condition 11 of the Belleville's NPDES permit (IL0021873) requires the permittee to comply with the nine minimum controls contained in the USEPA's National CSO Policy. One of the objectives of this policy is to bring all wet weather CSO discharge points into compliance with the CWA, including compliance with water quality standards and protection of designated uses.

at the expiration of this temporary period of five years with the applicable water quality standards. The city of Belleville may use innovative and alternative approaches and technologies to achieve this compliance. Ag. Rec. at 7.

DISCUSSION

For the Board to grant an adjusted standard, the petitioner must demonstrate that pursuant to Section 28.1(c) of the Act as well as 35 Ill. Adm. Code 106 Subpart G, an adjusted standard is warranted. The Board finds that at this time, Belleville has not provided sufficient information to demonstrate that the requested adjusted standard will not result in environmental or health effects more adverse than the effects considered by the Board in adopting the rule of general applicability. 415 ILCS 5/28.1(c)(3) (1998). Belleville has not provided any scientific data on the water quality impacts of the CSO discharge on the receiving streams. The Board notes that Belleville has supplied effluent data (Pet. at 5), however, there is no data from the unnamed tributary, the five to six mile stretch of Powdermill Creek or other downstream areas. The pictures in Appendix A and Exhibit C of the petition clearly show pools of water that remain after portions of the channel are dry.

Since Belleville seeks an exemption from the disinfection requirements for its CSO discharge into a creek that traverses a residential neighborhood, pertinent water quality information would include a characterization of BOD, fecal coliform, odors, and unnatural floating material or color. The Board notes that Belleville anticipated that this data may be necessary. Belleville requested that the Board grant a “temporary adjustment” to 35 Ill. Admin. Code 306.305(b) disinfection requirements for 12 months to gather data if the Board could not grant a permanent adjusted standard (Pet. at 23).

Also pertinent to demonstrating the environmental and health effects of the requested adjusted standard would be a detailed stream use survey that considers all potential users and nearby residents along the receiving stream as well as any economic considerations of those who might be affected by the discharge. The survey of natural barriers and photographs provided by Belleville are limited to a relatively short (1800 foot) segment of the five to six mile Powdermill Creek and does not adequately characterize the creek along its entire length through the residential and public access areas. The recreational assessment survey provided by Belleville was mailed only to residents north of the CSO discharge and contained questions that were somewhat vague and misleading, referring to storm water overflows rather than combined sewer overflows. See Pet. at Appendix A. The Agency is also clearly concerned about resident contact with the CSO, noting that two out of five respondents to the survey acknowledged recreational contact with the stream. Ag. Rec. 8-9. The Board also has questions about the concerns of adjacent resident, Mr. Gompers, who has reported that his children play in the CSO discharge ditch (Or. Pet. at 3).

For the reasons cited above, the Board believes that the record is insufficient at this time to demonstrate that the requested adjusted standard will not result in environmental or

health effects substantially and significantly more adverse than the effects considered by the Board in adopting 35 Ill. Adm. Code 306.605.

In addition to the Section 28.1(c)(3) concerns outlined in the preceding paragraphs, the Board has questions that relate to Section 28.1(c)(4) which requires consistency with federal law. Both Belleville and the Agency have indicated that they intend to seek a change in water use designation from the USEPA if the Board grants the requested relief. However, neither Belleville nor the Agency has provided any information as to why it is necessary to seek a change of water use designation, and whether USEPA's approval of such a change is predicated on the petitioner obtaining an adjusted standard from the CSO disinfection requirement.

In summary, the Board believes that the record in the proceeding is insufficient to grant Belleville an adjusted standard for the disinfection requirements of 35 Ill. Admin. Code 306.305(b) at this time. We, therefore, will send this matter to hearing. The Board has questions for Belleville as noted in the discussion above. The Board also has questions for the Agency, particularly concerning the language in special condition 4 of the CSO swirl concentrator construction permit that seems to indicate that Belleville cannot activate the CSO swirl concentrator without an adjusted standard from the Board's disinfection requirements. Since the swirl concentrator would produce clear environmental benefits, even without disinfection, the Board does not understand why the swirl concentrator cannot be activated during the pendency of this adjusted standard proceeding.

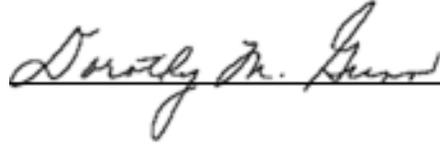
Finally, the Board suggests that Belleville may wish to consider whether or not this petition is more amenable to a variance request pursuant to Section 35 of the Act (415 ILCS 5/35 1998). The present petition contains most of the elements necessary for a variance request, which has a different standard of issuance than an adjusted standard. A variance request can ask for a temporary relaxation of a Board standard for a term up to five years, and requires a compliance plan, which may even include the future petition for a permanent adjusted standard. The Board notes that even if we granted Belleville a five-year adjusted standard with the language in the Agency's recommendation, Belleville would still need to petition the Board at the end of those five years for a permanent adjusted standard from 35 Ill. Admin. Code 306.305(b), unless disinfection equipment was installed.

CONCLUSION

The Board believes that the record is insufficient at this time to grant an adjusted standard from 35 Ill. Adm. Code 306.305(b). Specifically, the Board has questions about the requirement that the petitioner demonstrate that "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." 415 ILCS 5/28.1(c)(3) (1998). Therefore, the Board will send this matter to hearing.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above order was adopted on the 21st day of December 2000 by a vote of 7-0.

A handwritten signature in cursive script, reading "Dorothy M. Gunn", is written over a horizontal line.

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board