

ILLINOIS POLLUTION CONTROL BOARD
April 4, 2002

CITY OF CANTON,)	
)	
Petitioner,)	
)	
v.)	PCB 02-42
)	(Variance – Public Water Supply)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

OPINION AND ORDER OF THE BOARD (by T.E. Johnson):

This matter is before the Board pursuant to a petition for variance (petition) filed by the City of Canton (Canton) on October 1, 2001. Canton is seeking a variance for its water treatment plant located at 25495 Lakeshore Drive, Canton, Fulton County. The requested variance is from provisions of the Board's primary drinking water standards: 35 Ill. Adm. Code 611.743, 611.744, and 611.745.¹ These provisions relate to providing filtration treatment, and installing and recording data from turbidity monitors on each filter in the plant. The variance is requested from January 1, 2002 until November 30, 2002, within which time Canton will complete plant upgrades and installing the turbidity monitors and recording system.

Pursuant to Section 35(a) of the Environmental Protection Act (Act), the Board is charged with the responsibility of granting variances from Board regulations whenever immediate compliance with Board regulations would impose an arbitrary or unreasonable hardship on the petitioner. 415 ILCS 5/35(a) (2000). The Illinois Environmental Protection Agency (Agency) is required to appear in hearings on variance petitions. 415 ILCS 5/4(f) (2000). The Agency is also charged with the responsibility of investigating each variance petition and making a recommendation to the Board as to the disposition of the petition. 415 ILCS 5/37(a) (2000).

Canton initially requested a hearing, but filed a waiver of hearing on November 26, 2001. On December 6, 2001, the Board issued an order directing Canton to submit additional information on or before December 31, 2001, and accepted Canton's waiver of hearing. Canton timely provided the supplemental information on December 31, 2001.

As stated in the Board's two previous orders in this matter, the submittal of the requested information was considered an amended petition that restarted the statutory decision deadline of

¹ These standards were adopted by the Board in SDWA Update, USEPA Regulations (July 1, 1998 through December 31, 1998), R99-12 (July 22, 1999). They became effective on August 11, 1999, with a compliance date of December 31, 2001, for Section 611.743 and January 1, 2002, for Sections 611.744 and 611.745.

Section 38(a) of the Environmental Protection Act. 415 ILCS 5/38(a) (2000); *see also City of Canton v. IEPA*, PCB 02-42 (Jan. 10, 2002 and Dec. 6, 2001), 35 Ill. Adm. Code 104.228 and 104.332. The statutory decision deadline in this matter is April 30, 2002.

On November 15, 2001, the Agency filed its recommendation in response to the petition. The Agency recommends that the Board grant the petition subject to certain conditions. Rec. at 1.²

In a variance proceeding, the burden is on the petitioner to present proof that immediate compliance with Board regulations would cause an arbitrary or unreasonable hardship, which outweighs public interest in compliance with the regulations. *Willowbrook Motel v. PCB*, 135 Ill. App. 3d 343, 349, 350, 481 N.E.2d 1032, 1036, 1037 (1st Dist. 1977). Pursuant to Section 35(a) of the Act, the Board finds that Canton has presented adequate proof that immediate compliance with the Board regulations for which relief is being requested would impose such a hardship. For the reasons stated below, the Board grants Canton's variance request, subject to certain conditions.

FACILITY DESCRIPTION

Canton provides potable water service to an estimated 19,750 consumers. Pet. at 3. The plant was constructed in 1939 and has eight filters. Pet. at 4. The plant has seven full-time employees who are certified operators, and one full-time employee who is not a certified operator. Pet. at 4.

The plant is a conventional lime softening plant. Pet. at 5. Source water is gravity fed to the plant except in times of diminished elevation when the water is pumped from a pump station. *Id.* Potassium permanganate is added to the raw water as a pretreatment for disinfection and taste and odor control. Next, powdered activated carbon is added; also for taste and odor. *Id.* A coagulant, alum, is added immediately prior to the water entering the mixing chamber of the accelerator and lime is added to the mixing chamber for softening. *Id.*

After flowing through a recarbonation chamber, the water is filtered through multi-media filters beds of anthracite, sand and graduated gravel. Pet. at 4-5. At this point, the filtered water enters the clearwell where ammonia is added before being pumped into the distribution system. Pet. at 5. The water quality is monitored as required by the SDWA, and process residuals are monitored by manual sampling, with a grab sample being collected from each filter every four hours. *Id.* Turbidity is automatically monitored using a Hach turbidimeter. *Id.* Canton's eight filters are not monitored by constant turbidity monitors. *Id.*

APPLICABLE REGULATIONS AND REQUESTED RELIEF

Three Board water quality regulations are at issue: 35 Ill. Adm. Code 611.743, which describes specific filtration requirements, 35 Ill. Adm. Code 611.744, which requires public water systems to install turbidity monitors on each filter in the system, and 35 Ill. Adm. Code

² The Agency's recommendations will be cited as "Rec. at ___"; the petition will be cited as "Pet. at ___"; the supplemental information filed on December 31, 2001, will be cited as "Supp. at ___."

611.745, which imposes reporting and recordkeeping requirements from the turbidity monitors. The compliance date for Section 611.743 was December 31, 2001. The compliance date for Sections 611.744 and 611.745 was January 1, 2002. Canton requests that it be granted variance with respect to all three regulations.

The regulations state in pertinent part:

Section 611.743 Filtration

A PWS subject to the requirements of this Subpart that does not meet all of the standards in this Subpart and Subpart B of this Part for avoiding filtration shall provide treatment consisting of both disinfection, as specified in Section 611.242, and filtration treatment which complies with the requirements of subsection (a) or (b) of this Section or Section 611.250 (b) or (c) by December 31, 2001.

- a) Conventional filtration treatment or direct filtration.
 - 1) For systems using conventional filtration or direct filtration, the turbidity level of representative samples of a system's filtered water must be less than or equal to 0.3 NTU in at least 95 percent of the measurements taken each month, measured as specified in Sections 611.531 and 611.533.

* * *

Section 611.744 Filtration Sampling Requirements

- a) Monitoring requirements for systems using filtration treatment. In addition to monitoring required by Sections 611.531 and 611.533, a PWS subject to the requirements of this Subpart that provides conventional filtration treatment or direct filtration shall conduct continuous monitoring of turbidity for each individual filter using an approved method in Section 611.531(a) and shall calibrate turbidimeters using the procedure specified by the manufacturer. Systems shall record the results of individual filter monitoring every 15 minutes.
- b) If there is a failure in the continuous turbidity monitoring equipment, the system shall conduct grab sampling every four hours in lieu of continuous monitoring, until the turbidimeter is back online. A system shall repair the equipment within a maximum of five working days after failure.

Section 611.745 Reporting and Recordkeeping Requirements

In addition to the reporting and recordkeeping requirements in Sections 611.261 and 611.262, a public water system subject to the requirements of this Subpart that provides conventional filtration

treatment or direct filtration must report monthly to the Agency the information [relating to turbidity measurements and individual filter monitoring specified in subsection (a), (b), and (c) of this section]. . . .

COMPLIANCE PLAN

Canton states that the existing filter media and underdrain systems on all eight filters will be removed and replaced with new HDPE underdrains with porous plates. Pet. at 9. Canton will remove existing troughs and replace them with fiberglass troughs at higher elevations to maximize filter depth. *Id.* Dual filter media (sand and anthracite) will be used. Filter walls will be coated with elastomeric polyurethane coating to control the exfiltration of water. *Id.* Canton notes that six of the eight filters have a radial surface wash that will be raised in order to maximize filter media depth on six of the filters. Canton will install radial surface washers on the remaining two filters. *Id.* Turbidity monitors will be installed on each filter and computer and software will be installed for recording and reporting. *Id.*

Canton prepared a schedule for implementing the phases of the control program. Pet. at 9. Canton is currently entering the construction phase of the project. *Id.* According to the schedule, Canton received an Agency construction permit on August 8, 2000; received bids for construction of the project on February 6, 2001; awarded the contract on July 11, 2001; and notified the contractor to proceed on August 1, 2001. Pet. at 10. Canton plans to finish construction by April 27, 2002, and conduct start up and software training on May 1, 2002. Testing to assure compliance is scheduled to take place from May 28, 2002 to November 29, 2002. *Id.* Canton anticipates that full compliance will be reached by November 30, 2002. The estimated cost to achieve compliance is \$445,500. Supp. at 2.

HARDSHIP

Section 35(a) of the Act requires the Board to determine whether the petitioner has presented adequate proof that it would suffer an arbitrary or unreasonable hardship if required to comply with the Board's regulation at issue. 415 ILCS 5/35(a) (2000). Canton asserts that they are poised on the edge of construction, that funding has been approved, that water rates have been increased, and that materials are on order for the project. Pet. at 8-9. Canton contends that it is not feasible to renovate all eight filters at one time due to their level of demand, and that it would impose an arbitrary or unreasonable hardship on Canton if they are required to meet the January 1, 2002 deadline

The Agency believes that denying the variance would result in an arbitrary or unreasonable hardship because the hardship resulting from a denial outweighs any injury to the public or the environment from a grant of a variance. Rec. at 9. The Agency explains that Canton has to renovate filters one through eight in its surface water treatment plant at the same time in order to meet the 0.3 Nephelometric Turbidity Unit (NTU) turbidity requirement. Rec. at 9. Canton must also install new turbidity monitors on each renovated filter and a computer with the software to collect and record the information from each monitor. Rec. at 9-10. The Agency believes that the hardship associated with requiring compliance is real and unavoidable, while

granting the variance will impose no significant injury to the public or the environment. Rec. at 10.

ENVIRONMENTAL CONSIDERATIONS

Canton argues that the overall risk to the health of the plant's water consumers during the requested 11 month variance period seems "tolerable and consistent" with the rule's intent. Pet. at 12-13. Canton claims that the plant's filters currently can meet the new 0.3 NTU requirement 60% of the time on average, with a minimum turbidity monthly compliance rate to date as low as 25%. Pet. at 11-12; Supp. at 1. Additionally, Canton claims that the plant can currently continue to produce finished water with a turbidity level of 0.5 NTU or less 95% of the time, which 35 Ill. Adm. Code 611.250(a)(1) currently requires. Pet. at 11.

Canton contends that the plant has been producing potable water for its customers for 60 years without any known or documented outbreak of waterborne disease. Pet. at 12. Additionally, during the variance period, Canton will comply with all the Primary Drinking Water Standards. Pet. at 13. Further, Canton will continue to comply with the 0.5 NTU/95th percentile combined filter water turbidity requirement presently in place and continue the monitoring of filters every four hours. Pet. at 13.

The Agency agrees that granting the variance would not impose a significant injury to the public or the environment. Rec. at 7. Under Section 611.743(a)(1) Canton must produce finished water with a turbidity level less than or equal to 0.3 NTU in at least 95% of the monthly measurements. 35 Ill. Adm. Code 611.743(a)(1). The previously applicable standard of Section 611.250(a)(1) required Canton to produce finished water with a turbidity level less than or equal to 0.5 NTU in at least 95% of the monthly measurements. 35 Ill. Adm. Code 611.250(a)(1). According to the Agency, Canton is in compliance with Section 611.250(a)(1). Rec. at 8. Based on sampling results, however, Canton would only meet Section 611.743(a)(1)'s 0.3 NTU standard 51% of the time. Rec. at 8.

Canton will implement actions if *Cryptosporidium* were detected in the treated water. Supp. at 4. If *Cryptosporidium* were detected in Canton's treated water, Canton would contact the Agency, the local health department, the local hospitals and the media as well as their public officials. Supp. at 4.

The Agency notes that the provisions of Section 611.744 and 611.745 impose certain monitoring and reporting requirements that Canton will be unable to meet. Rec. at 8. However, the Agency concludes that granting the variance would pose no significant injury to the public or the environment. Rec. at 9.

The Board agrees, and finds that, if granted, the variance will not result in significant injury to the public or the environment.

CONSISTENCY WITH FEDERAL LAWS

Canton and the Agency agree that the variance may be granted consistent with Section 1412(b)(10) of the Safe Drinking Water Act (42 U.S.C. Sec. 300g-1(b)(10)). Pet. at 14. Rec. at 11. That section provides, in pertinent part:

A State . . . may allow up to 2 additional years [beyond the effective date of the regulation] to comply with a . . . treatment technique if the . . . State . . . determines that additional time is necessary for capital improvements. 42 U.S.C. Sec. 300g-1(b)(10).

RETROACTIVE VARIANCES

Canton requests a variance beginning January 1, 2002, which would be a retroactive variance. The Board has previously considered requests for retroactive variances. The Board will not apply retroactive starting dates for variances where the petitioner has filed late and the delay was the petitioner's fault. Marathon Oil Co. v. IEPA, PCB 95-150 (May 16, 1996). Another reason for not applying a retroactive starting date is if the petitioner's hardship is self-imposed as a result of the petitioner's inactivity or faulty decision-making. Marathon Oil Co. v. IEPA, PCB 95-150 (May 16, 1996). The Board may grant a retroactive variance if the petitioner has diligently sought relief and has made a good faith effort toward achieving compliance with Board regulations. Marathon Oil Co. v. IEPA, PCB 95-150 (May 16, 1996); Deere & Co. v. IEPA, PCB 88-22 (Sept. 8, 1988). The Board has also provided retroactive variances where there was a procedural delay that was not the petitioner's fault or was the result of confusion over federal regulations. Marathon Oil Co. v. IEPA, PCB 95-150 (May 16, 1996); Allied Signal v. IEPA, PCB 88-172 (Nov. 2, 1989).

Canton did not file the instant petition until October 1, 2001. In order to address technical concerns of the Board, Canton was required to provide additional information to the Board by December 31, 2001. As noted, the submittal of the additional information restarted the statutory decision deadline resulting in a new deadline of April 30, 2002.

The statutory decision deadline for variances is 120 days. In order to meet the compliance date of December 31, 2001, Canton should have filed the petition on or before September 3, 2001. Canton did not file their petition by September 3, 2001, and they were required to submit additional information to address technical issues not adequately addressed in the petition. In addition, Canton did not provide any reason for not filing the petition on or before September 3, 2001. The Board will not grant a retroactive but will instead grant the variance effective as of the date of this order.

CONCLUSION

The Board finds that, if the instant variance petition is not granted, the City of Canton will incur an arbitrary or unreasonable hardship. For this reason, the Board will grant the requested variance, subject to the conditions recommended by the Agency.

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

ORDER

The Board hereby grants petitioner, City of Canton, variance from 35 Ill. Adm. Code 611.743(a)(1), 611.744 and 611.745 for its water treatment plant located at 25495 Lakeshore Drive, Canton, Fulton County from April 4, 2002 to November 30, 2002, subject to the following conditions:

1. City of Canton will take all reasonable measures with existing equipment to minimize the level of turbidity in its finished drinking water, until full compliance is reached.
2. City of Canton will produce finished water meeting the new 0.3 NTU requirement contained in 35 Ill. Adm. Code 611.743(a)(1) in at least 51% of the measurements taken each month as specified in 35 Ill. Adm. Code 611.531 and 35 Ill. Adm. Code 611.533.
3. City of Canton will continue to comply with 35 Ill. Adm. Code 611.250(a)(1), which requires the turbidity level of representative samples to be less than or equal to 0.5 NTU in at least 95% of the measurements taken each month.
4. City of Canton will provide written progress reports to the Agency's Division of Public Water Supplies, Field Operations Section every three months concerning steps taken to renovate the insides of eight filters at its surface water treatment plant, and to install continuous turbidity monitors and a computer and software to collect and record the turbidity readings, as required for compliance with 35 Ill. Adm. Code 611.743(a)(1), 611.744, and 611.745. The first of these reports is due July 3, 2002.

IT IS SO ORDERED.

Board Member S.T. Lawton Concurred.

If petitioner chooses to accept this variance, within 45 days after the date of this opinion and order, petitioner shall execute and forward to:

Vera Herst
Division of Legal Counsel
Illinois Environmental Protection Agency
1021 North Grand Avenue
P.O. Box 19276
Mail Code #21
Springfield, Illinois 62794-9276

a certificate of acceptance and agreement to be bound by all the terms and conditions of the granted variance. The 45-day period shall be held in abeyance during any period that this matter is appealed. Failure to execute and forward the certificate within 45 days renders this variance void. The form of the certificate is as follows:

CERTIFICATE OF ACCEPTANCE

The City of Centralia accepts and agrees to be bound by all terms and conditions of the Pollution Control Board's April 4, 2002 order in PCB 02-42.

Petitioner

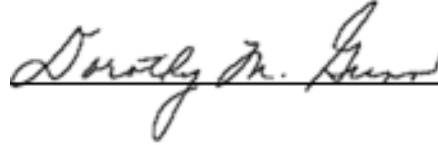
Authorized Agent

Title

Date

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) (2000); *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 April 4, 2002, by a vote of 6-0.

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

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board