

ILLINOIS POLLUTION CONTROL BOARD

March 21, 1996

CITY OF GENEVA, an Illinois)	
Municipal Corporation,)	
)	
Petitioner,)	
)	
v.)	PCB 96-161
)	(Variance - Public Water Supply)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

OPINION AND ORDER OF THE BOARD (by R.C. Flemal):

This matter is before the Board on the January 22, 1996 filing by the City of Geneva (Geneva) of a petition for variance. Geneva seeks relief from 35 Ill. Adm. Code 602.105(a), Standards for Issuance, and 602.106(b), Restricted Status, but only to the extent those rules involve 35 Ill. Adm. Code 611.330 (combined radium-226 and radium-228). Geneva requests a variance for a term of five years.

On February 8, 1996 the Illinois Environmental Protection Agency (Agency) filed its variance recommendation. The Agency recommends that the variance be granted for relief from 35 Ill. Adm. Code 602.105(a), Standards for Issuance, and 602.106(b), Restricted Status, subject to certain conditions. Geneva waived hearing and none was held.

The Board's responsibility in this matter arises from the Environmental Protection Act (Act) (415 ILCS 5/1 et seq. (1994).) The Board is charged there with the responsibility of granting variance from Board regulations whenever it is found that immediate compliance with the regulations would impose an arbitrary or unreasonable hardship upon the petitioner. (415 ILCS 5/35(a).) The Agency is required to appear in hearings on variance petitions. (415 ILCS 5/4(f).) The Agency is also charged, among other matters, 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).)

For the following reasons, the Board finds that Geneva has presented adequate proof that immediate compliance with the Board's regulations for Standards for Issuance and Restricted Status would impose an arbitrary or unreasonable hardship. Accordingly, the variance is granted, subject to conditions set forth in the attached order.

BACKGROUND

The City of Geneva is an Illinois Municipal Corporation located at 22 South First Street, Geneva, Kane County, Illinois. Geneva provides a potable water supply and distribution for 16,578 residential customers representing approximately 5,580 residents. Geneva is not part of a regional public water supply. (Pet. at 4.)

Geneva's well water supply system includes four (4) deep wells, two (2) shallow wells, and another under construction, as well as pumps and distribution facilities. (Rec. at 3.) Geneva provides the system to all residential users as needed and charges all users as established by the City Council. Geneva has the following wells in use and abandoned:

<u>Well No.</u>	<u>Year Drilled</u>	<u>Depth</u>
Well #2	1924	Abandoned in 1993
Well #3	1930	1315 feet
Well #4	1944	Abandoned in 1995
Well #5	1956	2264 feet
Well #6	1964	1350 feet
Well #7	1958	1986 feet
Well #8	1989	150 feet
Well #9	1993	153 feet
Well #10	1995	179 feet

(Pet. at 4.)

Geneva requests the variance to allow continued operation of the water supply and distribution system, and expansion or extension of the distribution system as necessary. (Rec. at 4.) The Agency records indicate Geneva has not filed for a previous variance. (Id.) The Agency notes that Geneva is not presently on restricted status for exceeding any other contaminant. (Rec. at 5.)

REGULATORY FRAMEWORK

The instant variance request concerns two features of the Board's public water supply regulations: Standards for Issuance and Restricted Status. These features are found at 35 Ill. Adm. Code 602.105 and 602.106, which in pertinent part read:

Section 602.105 Standards for Issuance

- a) The Agency shall not grant any construction or operating permit required by this Part unless the applicant submits adequate proof that the public water supply will be constructed, modified or operated so as not to cause

a violation of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111 , pars. 1001 et seq.) (Act), or of this Chapter.

Section 602.106 Restricted Status

- a) Restricted status shall be defined as the Agency determination pursuant to Section 39(a) of the Act and Section 602.105, that a public water supply facility may no longer be issued a construction permit without causing a violation of the Act or this Chapter.
- b) The Agency shall publish and make available to the public, at intervals of not more than six months, a comprehensive and up-to-date list of supplies subject to restrictive status and the reasons why.

Section 611.330 Radium and Gross Alpha Particle Activity

The following are the MCL's for radium-226 and radium-228.

- a) Combined radium-226 and radium-228 - 5 pCi/L.

The principal effect of these regulations is to provide that public water supply systems are prohibited from extending water service, by virtue of not being able to obtain the requisite permits, unless and until their water meets all of the standards for public water supplies.

In determining whether any variance is to be granted, the Act requires the Board to determine whether a petitioner has presented adequate proof that immediate compliance with the Board regulations at issue would impose an arbitrary or unreasonable hardship. (415 ILCS 5/35(a) (1994).) Furthermore, the burden is upon petitioner to show that its claimed hardship outweighs the public interest in attaining compliance with regulations designed to protect the public. (Willowbrook Motel v. Pollution Control Board (1st Dist. 1977), 135 Ill. App. 3d 343, 481 N.E.2d 1032.) Only with such a showing can the claimed hardship rise to the level of arbitrary or unreasonable hardship.

A further feature of a variance is that it is, by its nature, a temporary reprieve from compliance with the Board's regulations (Monsanto Co. v. IPCB (1977), 67 Ill.2d 276, 367 N.E.2d 684), and compliance is to be sought regardless of the hardship which the task of eventual compliance presents an individual polluter. (*Id.*) Accordingly, except in certain special circumstances, a petitioner is required, as a condition to grant of variance, to commit to a plan which is reasonably calculated to achieve compliance within the term of the variance.

A grant of variance from Standards for Issuance and Restricted Status does not absolve Geneva from compliance with the drinking water standards at issue, and does not insulate Geneva from possible enforcement action brought for violation of those standards. The

underlying standards remain applicable to Geneva regardless of whether variance is granted or denied.

Standards for combined radium in drinking water were first adopted as National Interim Primary Drinking Water Regulations (NIPDWRs) by the USEPA in 1976. The standard adopted was 5 pCi/l for the sum of the two isotopes of radium, radium-226 and radium-228 ("combined radium"). Shortly thereafter Illinois adopted the same limits. Although characterized as "interim" limits, these standards nevertheless are the maximum contaminant levels under both federal and Illinois law, and will remain so unless modified by the USEPA¹.

Since their original promulgation, the current radium standards have been under review at the federal level. The USEPA first proposed revision of the standards in October 1983 in an Advance Notice of Proposed Rulemaking (48 Fed. Reg. 45502). It later republished this advance notice in September 1986 (51 Fed. Reg. 34836). On June 19, 1991 the USEPA announced a proposal to modify both standards. USEPA proposes to replace the 5 pCi/l combined radium standard by separate standards of 20 pCi/l each for radium-226 and radium-228.

This change was to be promulgated by April 1995, but this deadline was later extended to September 1995. However, Congress has prohibited funds to promulgate final radionuclide standards for fiscal years 1994 and 1995. Mr. Joseph Harrison, Chief of the Safe Drinking Water Division, USEPA Region V, announced that in light of the projected proposal for the relaxed standard, the USEPA would not force any municipality to spend funds to comply with the federal combined standard. Most recently the Federal Register has indicated that radionuclide standards are no longer scheduled for a specific final regulatory action date. (60 Fed. Reg. 60656, November 28, 1995.) According to the Agency, in the absence of a revised Safe Drinking Water Act, the USEPA has held a series of meetings with States, water system representatives and public interest groups to assess the priorities for the development of drinking water regulations. (Rec. at 8.) A timetable for promulgation of the regulations was expected in December 1995, but has been delayed; the Agency now expects that within 75 days of USEPA FY96 appropriation the USEPA will commit to a timetable. (Rec. at 8-9.)

COMPLIANCE PLAN

As referenced above, the current combined standard for radium-226 and radium-228 is 5 pCi/L. On November 8, 1995 the Agency notified Geneva that the radium content in its water supply exceeded the MCL. The most recent analysis of Geneva's water supply was completed on June 20, 1995 at Tap 4 and showed a combined radium level of 6.4 pCi/L.

¹ In anticipation of USEPA revision of the radium standard, the legislature amended the Act at Section 17.6 in 1988 to provide that any new federal radium standard immediately supersedes the current Illinois standard.

(Rec. at 4.) Tap 5 analysis was completed on October 16, 1995 and showed a combined radium content of 10.3 pCi/L. (Rec. at 4-5.) Geneva also states that analysis at Tap 6 showed 4.2 pCi/L. (Pet. at 5.) The results were compiled from four (4) consecutive quarterly samples and exceeded the 5 pCi/L combined standard for radium-226 and radium-228. Accordingly the Agency notified Geneva that it is being placed on Restricted Status/Critical Review List on November 20, 1995. Since being notified of the MCL violation, Geneva has been investigating options for reducing the amount of radium in its water supply. (Rec. at 5.)

Prior to being placed on restricted status, Geneva received the following reports from the Illinois Department of Nuclear Safety, Division of Radiochemistry, dated July 31, 1995, August 2, 1995 and October 30, 1995:

<u>Well No.</u>	<u>Radium 226</u>	<u>Radium 228</u>	<u>Combined Radium</u>
2	Abandoned		
3	Stand-by Well		
4	Abandoned		
5	Stand-by Well		
6	3.2 pCi/L (+/-0.1)	3.2 pCi/L (+/-0.9)	6.4 pCi/L
7	3.8 pCi/L (+/-0.2)	6.5 pCi/L (+/-1.1)	10.3 pCi/L
8	2.2 pCi/L (+/-0.1)	2.2 pCi/L (+/-0.8)	2.0 pCi/L
9	Stand-by Well		
10	Under Construction		

(Pet. at 5-6.)

Geneva states that although it has two (2) operable shallow wells, Wells 8 and 9, with a combined pumping rate of 3500 gallons per minute and an additional shallow well under construction, the iron and manganese removal capacity for the shallow wells is limited to 1500 gallons per minute. (Pet. at 6.) According to Geneva, this limitation restricts the amount of shallow well water available for blending with deep wells. (Id.)

During the variance Geneva will maximize the utilization of water from Wells Number 8, 9 and 10, and minimize the use of deep wells Numbers 3, 5, 6 and 7. (Pet. at 7, Rec. at 5.) Additionally Geneva states it will continue to take all reasonable measures to minimize the radium levels in its finished water, as well as submitting the required bi-annual progress reports to the Agency.

HARDSHIP

Geneva asserts that compliance with the standard does not significantly benefit the public or environment but may in fact harm both. (Pet. at 8.) Geneva claims that any expenditure of money to comply is an arbitrary or unreasonable hardship regardless of its financial capacity to comply with the current MCL standard. (Id.) Denial of the requested

extension of variance would prohibit all construction within Geneva's service area from resuming and would hurt prospective home purchasers, business developers, and Geneva's tax base. (Pet. at 9.)

The Agency believes that while radiation at any level creates some risk, the risk associated with this level is very low. (Rec. at 6.) The Agency agrees with Geneva that grant of the requested variance would impose no significant injury to the public or to the environment for the limited time period requested and that denial would be an arbitrary and unreasonable hardship to Geneva. (Rec. at 9.) The Agency also states that denial of the variance would require the Agency to deny construction and operating permits until compliance is achieved. According to the Agency, the result of placing Geneva on restricted status would mean no new water main extensions could be issued and would prevent further development from taking place. (Rec. at 9.)

ENVIRONMENTAL IMPACT

Geneva has made no formal assessment of the effect of this variance on the environment. (Pet. At 7.) However, Geneva is of the opinion that granting the variance will not cause harm to the environment or to the people served by the wells and distribution system in question. (Id.) Geneva does not consider the radiological quality of this community water supply to be a significant health risk. (Id.)

The Agency believes an increase in the allowable concentration for contaminants in question "should cause no significant health risk for a limited population served by new water main extensions for the time period of this recommended variance". (Rec. at 9.) The Agency cites the testimony presented by Richard E. Toohey, Ph.D., at the June 25, 1985 hearing in PCB 85-54 and R85-14, the Proposed Amendments to Public Water Supply Regulations, 35 Ill. Adm. Code 602.105 and 602.106, as well as the updated testimony presented by Dr. Toohey in the Board's hearing for a variance requested by Geneva of Braidwood in Association of Braidwood v. IEPA, (June 21, 1990), PCB 89-212, to show additional information regarding combined radium levels. (Rec. at 7.) The Agency notes that the variance should affect only those users who consume water drawn from any newly extended water lines. (Rec. at 11.)

CONSISTENCY WITH FEDERAL LAW

The Agency states that the requested variance for relief from 35 Ill. Adm. Code 602.105(a) and 602.106(b) may be granted consistent with the Safe Drinking Water Act (SDWA), PL 93-523, as amended by PL 96-502, 42 U.S.C. 300(f) and corresponding regulations (40 CFR Part 141) because the variance does not grant relief from compliance with the national primary drinking regulations. (Rec. at 10.)

The Agency states that granting a variance from the effects of restricted status affects State and not federal law and regulations; a variance from the effect of restricted status would allow water main extensions, under the Act and Board regulations. (Rec. at 10.) The Agency further states that the recommended variance is not a variance from USEPA's national primary drinking water regulations and does suspend the effect of the SDWA. (Id.) The Agency asserts that a federal variance is not at issue and there should be no risk to the State of Illinois of loss of primacy.

The Agency states that Geneva will remain subject to the possibility of enforcement for violations of the MCL for the contaminants in question under state and federal law. (Rec. at 11.) The Agency concludes that because continuing progress is being made towards compliance while awaiting final promulgation of the standard, it is unlikely that the USEPA will object to the issuance of the recommended variance. (Id.)

CONCLUSION

Based upon the record, the Board finds that immediate compliance with the Standards for Issuance and Restricted Status regulations would impose an arbitrary or unreasonable hardship on Geneva. The Board agrees with the Agency that denial of the recommended variance would outweigh the injury to the public from granting variance. The Board also agrees with the parties that granting this variance does not pose a significant health risk to those persons served who will be affected by the variance, assuming that compliance is timely forthcoming.

The Board notes that timely compliance by Geneva may be affected by USEPA action to promulgate new standards for radionuclides in drinking water. USEPA has recommended a standard of 20 pCi/l for both radium-226 and radium-228. This proposed standard was published on July 18, 1991 (56 Fed. Reg. 33,050 (1991)), and the public hearings on the standard began on September 6, 1991. New radionuclide standards would significantly alter Geneva's need for a variance or alternatives for achieving compliance

Today's action is solely a grant of variance extension from standards of issuance and restricted status. Geneva is not granted a variance from compliance with the combined radium standard, and today's action does not insulate Geneva in any manner against enforcement for violation of these standards. As the Agency has observed, granting this extension of variance should affect only those users who consume water drawn from any newly extended water lines. (Rec. at 11.) And therefore this variance should not affect the status of the rest of Geneva's population drawing water from existing water lines.

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

ORDER

The City of Geneva (Geneva) is hereby granted a variance from 35 Ill. Adm. Code 602.105(a), Standards for Issuance, and 602.106(b), Restricted Status, as they relate to the standards for combined radium-226 and radium-228 in drinking water as set forth in 35 Ill. Adm. Code 611.330(a) subject to the following conditions:

- (A) For purposes of this order, the date of United States Environmental Protection Agency (USEPA) action consists of the earlier date of the following:
 - (1) Date of promulgation by the USEPA of any regulation which amends the maximum concentration level for combined radium, either of the isotopes of radium, or the method by which compliance with a radium maximum contaminant level is demonstrated; or
 - (2) Date of publication of notice by the USEPA that no amendments to the 5 pCi/l combined radium standard or the method for demonstrating compliance with the 5 pCi/l standard will be promulgated.

- (B) Variance shall terminate on the earliest of the following dates:
 - (1) Two years following the date of USEPA action; or
 - (2) March 21, 2001; or
 - (3) When analysis pursuant to 35 Ill. Adm. Code 611.720, or any compliance with standards then in effect, shows compliance with standards for radium in drinking water then in effect.

- (C) In consultation with the Illinois Environmental Protection Agency (Agency), Geneva shall continue a sampling program to determine as accurately as possible the level of radioactivity in its wells and finished water. Until this variance expires, Geneva shall collect quarterly samples of water from the distribution system at locations approved by the Agency. Geneva shall composite the quarterly samples from each location separately and shall analyze them annually by a laboratory certified by the State of Illinois for radiological analysis so as to determine the concentration of radium-226 and radium-228. At the option of Geneva, the quarterly samples may be analyzed when collected. The running average of the most recent four quarterly sample results shall be reported within 30 days of receipt of the most recent quarterly sample:

Illinois Environmental Protection Agency
Compliance Assurance Section
Drinking Water Quality Unit
Bureau of Water
P.O. Box 19276
Springfield, IL 62794-9276

- (D) Within three months of USEPA action, Geneva shall apply to the Agency at the address below for all permits necessary for the construction, installation, changes or additions to Geneva's public water supply needed for achieving compliance with the MCL for combined radium or with any other standard for radium in drinking water then in effect:

Illinois Environmental Protection Agency
Public Water Supply System
Permit Section
2200 Churchill Road
Springfield, IL 62794-9276

- (E) Within three months of USEPA action and after each construction permit is issued by the Agency, Geneva shall advertise for bids, to be submitted within 60 days, from contractors to do the necessary work described in the construction permit. Geneva shall accept appropriate bids within a reasonable time. Geneva shall notify the Agency, Division of Public Water Supplies, within 30 days, of each of the following actions: 1) advertisements for bids, 2) names of the successful bidders, and 3) whether Geneva accepted the bids.
- (F) Construction allowed on said construction permits shall begin within a reasonable time of bids being accepted, but in any case, construction of all installations, changes or additions necessary to achieve compliance with the MCL in question shall be completed no later than two years following USEPA action. One year will be necessary to prove compliance.
- (G) Pursuant to 35 Ill. Adm. Code 611.851(b) (formerly 35 Ill. Adm. Code 606.201), in its first set of water bills or within three months after the date of this order, whichever occurs first, and every three months thereafter, Geneva will send to each user of its public water supply a written notice to the effect that Geneva is not in compliance with the standard in question. The notice shall state the average content of the contaminants in question in samples taken since the last notice period during which samples were taken.
- (H) Pursuant to 35 Ill. Adm. Code 611.851(b) (formerly 35 Ill. Adm. Code 606.201), in the first set of water bills or within three months after the date of

this order, whichever occurs first, and every three months thereafter, Geneva will send to each user of its public water supply a written notice to the effect that Geneva has been granted by the Illinois Pollution Control Board a variance from 35 Ill. Adm. Code 602.105(a), Standards of Issuance, and 35 Ill. Adm. Code 602.106(b), Restricted Status, as they relate to the MCL standard in question.

- (I) Until full compliance is achieved, Geneva shall take all reasonable measures with its existing equipment to minimize the level of contaminants in its finished drinking water.
- (J) Geneva shall provide written progress reports to the Agency at the address below every six months concerning steps taken to comply with the paragraphs C, D, E, F, G and H of this order. Progress reports shall quote each of said paragraphs and immediately below each paragraph state what steps have been taken to comply with each paragraph:

Illinois Environmental Protection Agency
Division of Public Water Supply
Field Operations Section
2200 Churchill Road
Springfield, IL 62794-9276

IT IS SO ORDERED.

If the City of Geneva chooses to accept this variance subject to the above order, within forty-five (45) days of the date of this order, the City of Geneva shall execute and forward to:

Stephen C. Ewart
Division of Legal Counsel
Illinois Environmental Protection Agency
2200 Churchill Road, P.O. Box 19276
Springfield, IL 62794-9276

a Certificate of Acceptance and agreement to be bound to all terms and conditions of the granted variance. The forty-five (45) day period shall be held in abeyance during any period that this matter is appealed. Failure to execute and forward the certificate within forty-five (45) days renders this variance void and of no force and effect as a shield against enforcement of rules from which this variance is granted. The form of the certificate is as follows.

I (We), _____, hereby accept and agree to be bound by all terms and conditions of the order of the Illinois Pollution Control Board in PCB 96-161, March 21, 1996.

Geneva

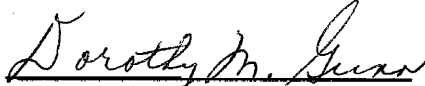
Authorized Agent

Title

Date

Section 41 of the Environmental Protection Act, (415 ILCS 5/41 (1994)), provides for appeal of final orders of the Board within 35 days of the date of service of this order. The Rules of the Supreme Court of Illinois establish filing requirements. (See also 35 Ill. Adm. Code 101.246, Motion for Reconsideration.)

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 21st day of March, 1996, by a vote of 7-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board