

ILLINOIS POLLUTION CONTROL BOARD
March 26, 1992

CITY OF KEWANEE,)
)
 Petitioner,)
)
 v.) PCB 91-236
) (Variance)
 ILLINOIS ENVIRONMENTAL)
 PROTECTION AGENCY,)
)
 Respondent.)

OPINION AND ORDER OF THE BOARD (by J. Theodore Meyer):

This matter is before the Board on the November 22, 1991 filing by petitioner, City of Kewanee (City) of a petition for variance. The City seeks relief from 35 Ill. Adm. Code 602.105(a) "Standards for Issuance", and 602.106(a), "Restricted Status", but only as these rules relate to the radium-226 and radium-228 standard of 35 Ill. Adm. Code 611.330(a) and the gross alpha standard of 35 Ill. Adm. Code 611.330(b). The City requests a variance for five years from the grant of the variance.

On December 20, 1991, the Illinois Environmental Protection Agency (Agency) filed its variance recommendation ("Rec."). The Agency recommends that the variance be granted subject to certain conditions. The City waived hearing, and none has been held.

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

BACKGROUND

The City, located in Henry County, is a municipality which provides a potable water supply for a population of 4,900 residential, industrial and commercial utility customers, representing approximately 12,935 residents. (Pet. 5.) The water system includes 4 deep wells, pumps and distribution facilities. (Pet. 5.)

The Agency states that this is petitioner's first request for a variance involving the combined radium and gross alpha particle activity limitations in 35 Ill. Adm. Code 611.330(a) and

(b). (Rec. 3.) The maximum contaminant levels (MCLs) for combined radium-226 and radium-228, and gross alpha particle activity are respectively 5 pCi/l and 15 pCi/l. The City states that it was first advised that its water supply exceeded the maximum allowable concentration for combined radium in a September 14, 1984 letter from the Agency. The City was advised that the MCL for gross alpha particle activity was exceeded in an October 17, 1980 letter from the Agency. (Pet. 6.) The Agency's report was based upon the analysis done by the Illinois Department of Public Health for gross alpha particle activity of an annual composite of four consecutive quarterly samples. The radium analyses are conducted by the United States Environmental Protection Agency (USEPA). (Pet. 6.) The last two composite analyses of the radium content in petitioner's water distribution system show the following results:

March 21, 1990

Tap #1 at Tremont Street	Combined Radium 12.4 pCi/l
Well #3	Combined Radium 13.2 pCi/l
Well #4	Combined Radium 8.7 pCi/l

April 3, 1991

Tap #1 at Tremont Street	Combined Radium 11.2 pCi/l
Well #4	Combined Radium 6.7 pCi/l

July 1991

Well #3	Combined Radium 12.8 pCi/l
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The most recent analyses of gross alpha particle activity in petitioner's water distribution system produced the following results:

September 6, 1991

Tap #1 at Tremont Street	Gross Alpha 11.0 pCi/l
Well #3	Gross Alpha 9.3 pCi/l
Well #4	Gross Alpha 6.2 pCi/l

(Rec. 4,5.)

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. 1989, ch. 111 1/2, 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.

The principal effect of these regulations is to provide that community 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 finished water supplies. The City requests that it be allowed to extend its water service while it pursues compliance with the combined radium and gross alpha standards, as opposed to extending service only after attaining compliance.

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. (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1035(a).) Furthermore, the burden is upon the 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 (1985), 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 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 and compliance is to be sought regardless of the hardship which the task of eventual compliance presents an individual polluter. (Monsanto Co. v. IPCB (1977), 67 Ill.2d 276, 367 N.E.2d 684.) Accordingly, except in certain special circumstances, a variance 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.

It is to be noted that grant of variance from "Standards for Issuance" and "Restricted Status" does not absolve a petitioner from compliance with the drinking water standards at issue, nor does it insulate a petitioner from possible enforcement action brought for violation of those standards. The underlying standards remain applicable to the petitioner regardless of whether variance is granted or denied.

Standards for radium in drinking water were first adopted as National Interim Primary Drinking Water Regulations ("NIPDWRs") by the USEPA in 1976. The standards adopted were 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, the standards nevertheless are the maximum allowable concentrations under both federal and Illinois law, and will remain so unless modified by the USEPA.¹

Over much of the fifteen years since their promulgation, the current radium standards have been under revision 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.) Most recently, on June 19, 1991, USEPA announced a proposal to modify the radium standards. (56 Fed. Reg. 33050, July 18, 1991.) 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. Under the USEPA's calendar, these standards are scheduled for promulgation by April 1993 with an effective date of October 1994.

COMPLIANCE PLAN

The City has considered three compliance alternatives. The first involves the installation of a reverse osmosis treatment facility. The City has retained professional consultants to complete this installation and anticipates a 10 to 18 month period to accomplish this task. (Pet. 8.) The second alternative is a spectral gamma logging and stimulation, which proved to be unsuccessful in March 1991. (Id.)

¹ In anticipation of USEPA revision of the radium standard, the legislature amended the Illinois Environmental Protection Act at Section 17.6 in 1988 to provide that any new federal radium standard immediately supersedes the current Illinois standard. (See also, P.A. 87-650 which amends Section 17.6 of the Act to specifically refer to Board adoption of federal combined radium-226 and radium-228 and gross alpha particle activity standards by peremptory rulemaking.)

The third alternative involves the process of blending. The petitioner has been preparing a well for the primary source that could be used to blend existing water supplies if other alternatives failed. Thus far, the costs associated with this alternative exceed \$100,000.00, and the method appears to provide little success. (Pet. 10.)

HARDSHIP

The City argues that the expenditure of significant sums of money in order to come into compliance would be an arbitrary or unreasonable hardship, because there is no significant risk of harm to the environment or people for the limited time period of the variance at the current levels of the contaminants. (Pet. 16.) The City also argues that grant of the variance would only prohibit the Agency from legally denying construction or operating permits based on the City's violation of the standards, and would not make less strict the standard that petitioner must meet. (Pet. 13.) The City asserts that the substantial expenditure of public funds for treatment facilities, which may become obsolete in the near future as a result of the USEPA proposed relaxation of the current standards, is not in the public interest and does not grant a corresponding benefit to the public. (Pet. 15.) The City also asserts that a failure to obtain a variance will negatively impact prospective home purchasers as well as business developers and petitioner's tax base, because all construction within the petitioner's service area requiring the extension of the water supply system could not resume. Finally, the City argues that the time involved for planning, financing, engineering, and construction of water treatment facilities prevents immediate compliance with the standards, and that, in the interim period, there is a great need for the expansion of the water distribution system in order to serve the domestic and fire protection requirements of the local population. (Pet. 15.)

ENVIRONMENTAL IMPACT

The City has made no formal assessment of the effect of the variance on the environment. The City, however, refers to the testimony and exhibits presented by Dr. Richard E. Toohey, Ph.D., and Dr. James Stebbings, Ph.D, on July 30 and August 2, 1985, in R85-14, Proposed Amendments to Public Water Supply Regulations 35 Ill. Adm. Code 602.105 and 602.106, in support of the assertion that the variance will not result in any adverse environmental impact. (Pet. 9, 10.)

While the Agency believes that radiation at any level creates some risk, the risk associated with the City's water

supply is very low. (Rec. 6.) In summary, the Agency states as follows:

The Agency believes that the hardship resulting from denial of the recommended variance from the effect of being on Restricted Status would outweigh the injury to the public from grant of the variance. In light of the likelihood of no significant injury to the public from continuation of the present level of the contaminants in question in the Petitioner's water for the limited time period of the variance, the Agency concludes that denial of a variance from the effects of Restricted Status would impose an arbitrary or unreasonable hardship upon Petitioner.

The Agency observes that this grant of variance from restricted status should affect only those users who consume water drawn from any newly extended water lines. This variance should not affect the status of the rest of Petitioner's population drawing water from existing water lines, except insofar as the variance by its conditions may hasten compliance. In so saying, the Agency emphasizes that it continues to place a high priority on compliance with the standards. (Rec. 10, 11.)

CONSISTENCY WITH FEDERAL LAW

The Agency states that the requested variance may be granted consistent with the Safe Drinking Water Act, PL 93-523, as amended by PL 96-502, 42 U.S.C. 300(f), and the USEPA Drinking Water Regulations (40 CFR Part 141), because the variance does not grant relief from compliance with the federal primary drinking regulations. (Rec. 9.)

CONCLUSION

The Board notes that little information has been presented describing efforts made to achieve compliance since petitioner's 1980 and 1984 notices of non-compliance. The City asserts, without detail, that it has been active in preparing one well that would be used to blend existing water supplies if other alternatives failed, and further asserts that costs to date associated with this work are in excess of \$100,000 and have provided little success. (Pet. 10.) However, given that the levels of petitioner's non-compliance for combined radium-226 and radium-228, and gross alpha particle activity are low, and that petitioner has committed to a schedule for compliance, the Board believes that the grant of variance is the appropriate action in this case.

Based upon the record, the Board finds that the city has presented adequate proof that immediate compliance with the "Standards for Issuance" and "Restricted Status" regulations would impose an arbitrary or unreasonable hardship on the City of Kewanee under Section 35(a) of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, Par. 1035(a)). The Board will grant this variance for the requested period of five years, subject to conditions similar to those recommended by the Agency.

The Board also notes that timely compliance by the City may be affected by pending USEPA action to promulgate new standards for radionuclides in drinking water. New radionuclide standards from USEPA could significantly alter the City's need for a variance or alternatives for achieving compliance. In recognition of this situation, as recommended by the Agency, the variance will contain suitable time frames to account for the effects of any USEPA alteration (or notice of refusal to alter) of the radium standards.

Today's action is solely a grant of variance from "Standards of Issuance" and "Restricted Status". The City is not granted variance from compliance with the combined radium standard, or gross alpha particle standard nor does today's action insulate the City in any manner against enforcement for violation of these standards.

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

ORDER

1. The City of Kewanee is hereby granted a five-year variance from 35 Ill. Adm. Code 602.105(a), "Standards for Issuance", and 602.106(a), "Restricted Status", as they relate to the standard for combined radium and gross alpha particle activity as set forth in 35 Ill. Adm. Code 611.330(a) and 611.330(b), respectively, subject to the following conditions:
 - (A) The variance shall terminate on the earliest of the following dates:
 - 1) Two years following the date of USEPA action; or
 - 2) March 26, 1997; or
 - 3) When analysis pursuant to 35 Ill. Adm. Code 611.720(d), or any compliance demonstration method then in effect, shows compliance with any standards for radium in drinking water.

- (B) For purposes of this order, the date of USEPA action shall consist of the earlier date of the:
- 1) date the regulation is promulgated by the USEPA which amends the maximum contaminant 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.
- (C) In consultation with the Agency, the City shall continue its sampling program to determine as accurately as possible the level of radioactivity in its wells and finished water. Until this variance expires, the City shall collect quarterly samples of its water from its distribution system at locations approved by the Agency. The City 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 the contaminants in question. The results of the analyses shall be reported to the Compliance Assurance Section, Division of Public Water Supplies, 2200 Churchill Road, IEPA, Springfield, IL 62794-9276, within 30 days of receipt of each analysis. At the option of the City, the quarterly samples may be analyzed when collected. The running average of the most recent four quarterly sample results shall be reported to the above address within 30 days of receipt of the most recent quarterly sample.
- (D) Within three months of USEPA action, the City shall apply to the Agency at the address below for all permits necessary for the construction, installation, changes, or additions to the City's public water supply needed for achieving compliance with the Maximum Contaminant Level for combined radium or with any other standard for radium in drinking water then in effect, and for the gross alpha particle activity standard:

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

- (E) Within six months of USEPA action after each construction permit is issued by IEPA, the City shall advertise for bids, to be submitted within 60 days, from contractors to do the necessary work described in the construction permit. The City shall accept appropriate bids within a reasonable time. The City shall notify IEPA, DPWS, within 30 days, of each of the following actions: (1) advertisements for bids, (2) names of successful bidders, and (3) whether the City 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), 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, the City will send to each user of its public water supply a written notice to the effect that the City is not in compliance with the standards for combined radium-226 and radium-228 of 5 pCi/l, and for gross alpha particle activity of 15 pCi/l. 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), in its first set of water bills or within three months after the date of this variance order, whichever occurs first, and every three months thereafter, the City will send to each user of its public water supply a written notice to the effect that the City has been granted by the Pollution Control Board a variance from 35 Ill. Adm. Code 602.105(a), "Standards of Issuance", and 35 Ill. Adm. Code 602.106(a), "Restricted Status", as it relates to the MCL standards for combined radium-226 and radium-228 of 5 pCi/l, and for gross alpha particle activity of 15 pCi/l.
- (I) Until full compliance is reached, the City shall take all reasonable measures with its existing equipment to minimize the level of radium-226 and radium-228, and gross alpha particle activity in its finished drinking water.
- (J) The City shall provide written progress reports to IEPA, DPWS, FOS every six months concerning steps taken

to comply with paragraphs C, D, E, F, G, and H. Progress reports shall quote each of said paragraphs and immediately below each paragraph state what steps have been taken to comply with each paragraph.

- (K) That within forty-five days of the grant of the variance, the City shall execute and forward a certificate of acceptance and agreement to:

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

- 2. A certificate of acceptance and agreement shall bind the City to all 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 certificate is as follows:

CERTIFICATION

I (we), _____, hereby accept and agree to be bound by all terms and conditions of the Order of the Pollution Control Board in PCB 91-236, March 26, 1992.

Petitioner

By: Authorized Agent

Title

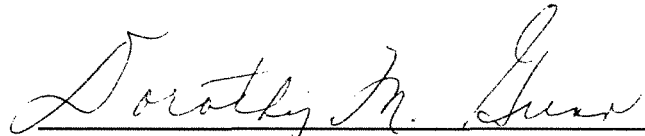
Date

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1989, ch. 111 1/2 par. 1041, provides for appeal of final Orders of the Board within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements.

IT IS SO ORDERED.

B. Forcade dissented.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 26th day of March, 1992, by a vote of 6-1.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board