

ILLINOIS POLLUTION CONTROL BOARD
March 28, 1991

CITY OF PROSPECT HEIGHTS)
(Rob Roy Water System),)
)
Petitioner,)
)
v.) PCB 90-224
) (Variance)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Respondent.)

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

This matter comes before the Board upon filings by the City of Prospect Heights ("Prospect Heights") on November 29, 1990 of a Petition for Variance ("Pet."). Prospect Heights seeks relief from 35 Ill. Adm. Code 602.105(a), "Standards for Issuance", and 602.106(b), "Restricted Status", to the extent those rules relate to violation by Prospect Heights' public water supply of the 5 picocuries per liter ("pCi/l") combined radium-226 and radium-228 standard of 35 Ill. Adm. Code.Subtitle F¹. The variance request is solely for the portion of the Prospect Heights public water supply system known as the Rob Roy Water System. Variance is requested until March 15, 1993.

The Illinois Environmental Protection Agency ("Agency") filed its Variance Recommendation ("Rec.") on January 17, 1991². The Agency recommends that variance be granted, subject to conditions. Prospect Heights waived hearing and no hearing has been held.

Based on the record before it, the Board finds that Prospect Heights has presented adequate proof that immediate compliance with the Board regulations at issue would impose an arbitrary or unreasonable hardship. Accordingly, the variance will be granted, subject to conditions consistent with this Opinion and as set forth in the attached Order.

¹ The standard for combined radium was formerly found at 35 Ill. Adm. Code 604.301(a); effective September 20, 1990 it was recodified to 35 Ill. Adm. Code 611.330(a) (see Illinois Register, Volume 14, Issue 40, October 5, 1990).

² The Agency Recommendation is accompanied by a motion to file instanter. That motion is hereby granted.

BACKGROUND

Prospect Heights is a municipality located in Cook County. Prospect Heights provides public services including potable water supply and distribution for its citizens. Among these are an estimated 1820 residential customers whose homes surround the Rob Roy Country Club golf course and who are served by the Rob Roy Water System.

The Rob Roy Water System has two water wells, one deep and one shallow well, plus pumps and distribution facilities. The deep well, Well No. 2, is both the principal supply well and the source of the elevated radium concentrations (Pet. ¶14, ¶20).

Prospect Heights was first advised that its water supply was being placed on Restricted Status by letter from the Agency dated April 11, 1988 (Rec. ¶10). Placement on Restricted Status was based on a combined radium concentration of 9.1 pCi/l (Rec. ¶11). Subsequent analyses from both Well No. 2 and the distribution system are as follows, in pCi/l (Pet. ¶20).

<u>Date</u>	<u>Well No. 2</u>		<u>Total</u>	<u>Distribution System</u>		
	<u>Ra-226</u>	<u>Ra-228</u>		<u>Ra-226</u>	<u>Ra-228</u>	<u>Total</u>
12/87	4.9	1.6	6.5	4.6	2.2	6.8
2/88	13.5	3.9	17.4	3.4	1.8	5.2
4/88	10.9	4.5	15.4	3.9	1.8	5.7
8/88	4.9	2.6	7.5	5.1	2.6	7.7
10/88	3.0	2.5	5.5	2.1	1.7	3.8
1/89	3.1	2.8	5.9	3.7	2.5	6.2
4/89	3.4	3.8	7.2	4.6	3.7	8.3
7/89	3.3	1.5	4.8	3.9	1.5	5.4
3/90	3.0	2.6	5.6			

Prospect Heights has not previously sought variance regarding this matter.

REGULATORY FRAMEWORK

In recognition of a variety of possible health effects occasioned by exposure to radioactivity, the United States Environmental Protection Agency ("USEPA") has promulgated a maximum concentration limit for drinking water of 5 pCi/l of combined radium-226 and radium-228. Illinois subsequently adopted this limit as the maximum allowable concentration under Illinois law. Pursuant to Section 17.6 of the Illinois Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 ½, par. 1017.6), any revision of the 5 pCi/l standard by the USEPA will automatically become the standard in Illinois.

The action that Prospect Heights requests here is not variance from the maximum allowable concentration for radium.

Regardless of the action taken by the Board in the instant matter, this standard will remain applicable to Prospect Heights. Rather, the action Prospect Heights requests is the temporary lifting of prohibitions imposed pursuant to 35 Ill. Adm. Code 602.105 and 602.106. In pertinent part these Sections 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 ½, pars. 1001 et seq.) (Act), or of this Chapter.

Section 602.106 Restricted Status

- 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.

Illinois regulations thus provide that communities are prohibited from extending water service, by virtue of not being able to obtain the requisite permits, if their water fails to meet any of the several standards for finished water supplies. This provision is a feature of Illinois regulations not found in federal law. It is this prohibition which Prospect Heights requests be lifted. Moreover, grant of the requested variance would not absolve Prospect Heights from compliance with the combined radium standard, nor insulate Prospect Heights from possible enforcement action brought for violation of those standards, as Prospect Heights itself notes (Pet. ¶47).

In consideration of any variance, the Board determines 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 ½, 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 (1977), 135 Ill.App.3d, 481 N.E.2d, 1032). Only with such showing can the claimed hardship rise to the level of arbitrary or unreasonable hardship.

Lastly, a variance by its nature is 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 that the task of eventual compliance presents an individual polluter (Id.). Accordingly, except in certain special circumstances, a variance petitioner is

required, as a condition to grant of variance, to commit to a plan that is reasonably calculated to achieve compliance within the term of the variance.

COMPLIANCE PROGRAM

Prospect Heights is examining two alternatives for achieving compliance with the combined radium standard: (1) using Lake Michigan water in place of water currently provided by Well No. 2, and (2) constructing treatment facilities to treat all water supplied by Well No. 2 (Pet. ¶23-¶25).

At this time Prospect Heights has not yet determined which of the two options is most appropriate, although the Lake Michigan option is Prospect Heights first choice. Prospect Heights has hired an outside consultant to study the means to achieve a Lake Michigan water supply. Additionally, Prospect Heights has secured an allocation from the State of Illinois to use Lake Michigan water and has begun negotiations with the Village of Glenview for supply (Rec. ¶17).

Prospect Heights's favored treatment alternative, at this time, is ion exchange water softening (Pet. ¶25). Prospect Heights has engaged an outside consultant to study this compliance means (Id.). Lime or lime-soda water softening has also been considered by Prospect Heights (Pet. ¶28).

Overall, Prospect Heights proposes the following schedule of activities during the term of the proposed variance (Pet ¶33):

April 1991	Referendum on Lake Michigan water for Rob Roy System (and remainder of City)
May - Oct. 1991	Negotiate for Lake Michigan water for Rob Roy System (and remainder of City)
Oct. 1991 - March 1992	Hire consulting engineer to design facilities for Lake Michigan water supply or well water softening treating.
April 1992	Review plans
May 1992	Advertise for bids
June 1992	Accept bids
Aug '92 - Mar. '93	Construction period
March 15, 1993	Place facilities into service so that Rob Roy Water System is in compliance with radium standard.

HARDSHIP

Prospect Heights contends that denial of variance would constitute an arbitrary or unreasonable hardship. It notes that:

Failure to obtain a variance means that all construction within the Petitioner's service area requiring the extension of the water supply system, could not resume. This hurts prospective home purchasers and business developers as well as Petitioner's tax base . . . The time involved for the planning, financing, engineering and construction of water treatment facilities prevents immediate compliance . . . In the interim period, there is a great need for expansion of the present water system in order to serve the domestic, as well as fire protection, needs of the proposed development. (Pet. ¶41-¶43).

The proposed development in question consists of a 12.42 acre commercial development site. Tenants of the site are intended to be principally retail stores, plus two restaurants, a medical facility, a food store, and a bank (Pet. ¶13).

Prospect Heights further contends that the expenditure of public funds for treatment facilities that may become obsolescent in the near future due to revision of the radium standard is not in the public interest and does not grant a corresponding benefit to the public (Pet. ¶40).

The Agency also contends that denial of variance would constitute an arbitrary or unreasonable hardship (Rec. ¶19).

PUBLIC INTEREST

Although Prospect Heights has not undertaken a formal assessment of the environmental effect of its requested variance, it contends that there will be little or no adverse impact caused by the granting of variance (Pet. ¶30). The Agency contends likewise (Rec. ¶16). In support of their contention, Prospect Heights (Pet. ¶30) and the Agency (Rec. ¶15) reference testimony presented by Richard E. Toohey, Ph.D. of Argonne National Laboratory at the hearing held on July 30 and August 2, 1985 in R85-14, Proposed Amendments to Public Water Supply Regulations, 35 Ill. Adm. Code at 602.105 and 602.106, to the testimony of Dr. James Stebbings in the same proceeding, and to updated testimony presented by Dr. Toohey in the Board's hearing on the Braidwood variance, PCB 89-212.

The Agency believes that while radiation at any level creates some risk, the risk associated with Prospect Heights's water is very low (Rec. ¶14). In summary, the Agency states:

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 of the public from grant of that variance. In light of the cost to the Petitioner of treatment of its current water supply, the likelihood of no significant injury to the public from continuation of the present level of the contaminant in question in the Petitioner's water for the limited time period of the variance, and the possibility of compliance with a new MCL standard by less expensive means if the standard is revised upward, 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. Grant of variance may also, in the interim, lessen exposure for that portion of the population which will be consuming more effectively blended water. In so saying, the Agency emphasizes that it continues to place a high priority on compliance with the standards.

(Rec. ¶27 and ¶28)

CONCLUSION

The Board finds that, in light of the facts and circumstances in this case, denial of variance would impose an arbitrary or unreasonable hardship upon Prospect Heights. The Board also agrees with the parties that no significant health risk will be incurred by persons who are served by any new water main extensions, assuming that compliance is timely forthcoming.

The Board also notes that promulgation of a new radium standard by the USEPA might significantly alter Prospect Heights' compliance circumstance, even perhaps removing the need for variance. While it is well-established that a speculative change in the law is not grounds for establishing arbitrary or unreasonable hardship (e.g., Citizens Utilities Company of Illinois v. IPCB (1985), 134 Ill.App.3d, 111,115), the Board believes that in some circumstances a prospective change in law may appropriately be reflected in the conditions upon which a variance is granted. In the instant case the Board believes that it is appropriate to condition the grant of variance so as to best assure that Prospect Heights will achieve compliance with

whatever standard is ultimately applicable and that Prospect Heights will not need to prematurely return to this Board to request a variance extension.

With these ends in mind, the Board will require that Prospect Heights timely proceed with its compliance options so that it will be prepared to implement an appropriate option as needed. Similarly, the Board will make expiration of the variance dependent upon the date of USEPA alteration (or notice of refusal to alter) of the radium standard; should Prospect Heights still need to take steps to come into compliance after USEPA action, Prospect Heights will have one year thereafter to make the improvements necessary to achieve compliance and one additional year for a compliance demonstration³. Finally, should the USEPA default in taking action on the radium standard, the variance will be conditioned to provide for achievement and demonstration of compliance no later than three years hence.

Prospect Heights is to bear in mind that today's action is solely a grant of variance from standards of issuance and Restricted Status. Prospect Heights is not being granted variance from compliance with the radium standard, nor does today's action insulate Prospect Heights in any manner against enforcement for violation of that standard.

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

ORDER

Petitioner, City of Prospect Heights, is hereby granted variance for its Rob Roy Water System from 35 Ill. Adm. Code 602.105(a), Standards of Issuance, and 602.106(b), Restricted Status, as they relate to the standard for radium in drinking water of 35 Ill. Adm. Code.Subtitle F, subject to the following conditions:

- (A) For the purposes of this Order, the date of USEPA action shall consist of the earlier of the:
 - (1) Effective date on any regulation promulgated by the U.S. Environmental Protection Agency ("USEPA") 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 concentration level is demonstrated; or

³ The addition year for a compliance demonstration, pursuant to 35 Ill. Adm. Code 611.Subpart Q, is based on the Agency's recommendation (Rec. ¶29(A)), in which the Board concurs.

- (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) When analysis pursuant to 35 Ill. Adm. Code 611.Subpart Q, or any compliance demonstration method then in effect, shows compliance with any standards for radium in drinking water then in effect;
 - (2) Two years following the date of USEPA action; or
 - (3) March 28, 1994.
- (C) Compliance shall be achieved with any standards for radium then in effect no later than the date on which this variance terminates.
- (D) In consultation with the Illinois Environmental Protection Agency ("Agency"), Petitioner shall continue its sampling program to determine as accurately as possible the level of radioactivity in its wells and finished water. Until this variance terminates, Petitioner shall collect quarterly samples of water from its distribution system at locations approved by the Agency. Petitioner shall composite the quarterly samples for each location separately and shall have them analyzed annually by a laboratory certified by the State of Illinois for radiological analysis to determine the concentration of radium-226 and radium-228. At the option of Petitioner the quarterly samples may be analyzed when collected. The results of the analyses shall be reported within 30 days of receipt of the most recent result to:
- Illinois Environmental Protection Agency
Compliance Assurance Section
Division of Public Water Supplies
P.O. Box 19276
2200 Churchill Road
Springfield, Illinois 62794-9276
- (E) Within three months of USEPA action or one year after the grant of this variance, whichever is sooner, Petitioner shall apply to the Agency at the address below for all permits necessary for construction of installations, changes, or additions to Petitioner's public water supply needed for achieving compliance with the maximum allowable concentration for combined

radium, or with any standards for radium in drinking water then in effect:

Illinois Environmental Protection Agency
Division of Public Water Supply
Permit Section
2200 Churchill Road
Springfield, Illinois 62794-9276.

- (F) Within three months after each construction permit is issued by the Agency, Petitioner shall advertise for bids, to be submitted within 60 days, from contractors to do the necessary work described in the construction permit. Petitioner shall accept appropriate bids within a reasonable time. Petitioner shall notify the Agency at the address in condition (E) of each of the following actions: 1) advertisement for bids, 2) names of successful bidders, and 3) whether Petitioner accepted the bids.
- (G) Construction allowed on said construction permits shall begin within a reasonable time of bids being accepted. In any case, construction of all installations, changes or additions necessary to achieve compliance with the maximum allowable concentration of combined radium, or with any standards for radium in drinking water then in effect, shall be completed no later than two years following the date of USEPA action or March 28, 1992, whichever is earlier.
- (H) 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, Petitioner shall send to each user of its public water supply a written notice to the effect that Petitioner 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(b) Restricted Status, as they relate to the radium standard.
- (I) 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, Petitioner shall send to each user of its public water supply a written notice to the effect that Petitioner is not in compliance with standard for radium. The notice shall state the average content of radium in samples taken since the last notice period during which samples were taken.

- (J) Until full compliance is achieved, Petitioner shall take all reasonable measures with its existing equipment to minimize the level of combined radium, radium-226, and radium-228 in its finished drinking water.
- (K) Petitioner shall provide written progress reports to the Agency at the address below every six months concerning steps taken to comply with the paragraphs 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, Illinois 62794-9276.

Within 45 days of the date of this Order, Petitioner shall execute and forward to Stephen C. Ewart, Division of Legal Counsel, Illinois Environmental Protection Agency, 2200 Churchill Road, Post Office Box 19276, Springfield, Illinois 62794-9276, a Certification of Acceptance and Agreement to be bound to all terms and conditions of this variance. The 45-day period shall be held in abeyance during any period that this matter is being appealed. Failure to execute and forward the Certificate within 45 days renders this variance void and of no force and effect as a shield against enforcement of rules from which variance was granted. The form of said Certification shall be 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 90-224, March
28, 1991.

Petitioner

Authorized Agent

Title

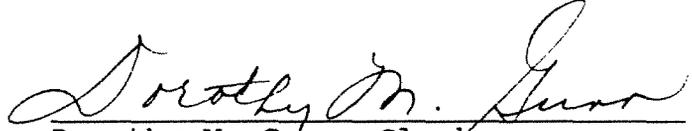
Date

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1989 ch. 111 ½ 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.

Board Members Jacob D. Dumelle and Bill 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 28th day of March, 1991, by a vote of 5-2.


Dorothy M. Gunn, Clerk
Illinois Pollution Control Board