

ILLINOIS POLLUTION CONTROL BOARD
November 8, 1990

CITY OF AURORA,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 90-131
	)	(Variance)
ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
	)	
Respondent.	)	

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

This matter comes before the Board upon filing by the City of Aurora ("Aurora") on July 17, 1990 of a Petition for Variance ("Pet."). Aurora 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 Aurora's 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. Variance is requested for two years, beginning July 1, 1990 and extending to July 1, 1992. One of the two years requested for variance is intended to allow for completion of compliance facilities; the second year is intended to allow for a compliance demonstration (Pet. ¶23).

The Illinois Environmental Protection Agency ("Agency") filed its Variance Recommendation ("Rec.") on October 1, 1990. The Agency recommends that variance be granted, subject to conditions. Hearing was waived and none has been held.

Based on the record before it, the Board finds that Aurora 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 as set forth in this Opinion and 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).

BACKGROUND

Aurora, Illinois' sixth largest municipality, is located in Kane County. Among other services, Aurora provides potable water supply to approximately 35,375 residential and 2,000 industrial and commercial utility customers representing approximately 92,000 residents and 43,250 employees (Pet. ¶11). Aurora's water supply system is basically a deep well supply system, which includes eleven (11) deep wells, four (4) shallow wells, pumps, and distribution facilities (Pet. ¶13). Total water production in 1989 was 4,128 million gallons, averaging approximately 344 million gallons per month (Pet. ¶15).

Aurora was first advised that its water supply was being placed on restricted status by letter from the Agency dated October 29, 1984 (Pet. ¶19). Combined radium concentrations have subsequently been determined from various positions within the water supply system, including both the well-heads and within the distribution system. The most recent available analyses, which are for samples collected March 6, 1990, show the following results in pCi/l:

	<u>Radium-226</u>	<u>Radium-228</u>
Distribution System	9.5 ± 0.3	6.7 ± 0.8
Well No. 15	4.9 ± 0.2	6.3 ± 0.7
Well No. 16	4.6 ± 0.2	6.5 ± 0.7
Well No. 18	10.9 ± 0.3	7.6 ± 0.8
Well No. 19	4.6 ± 0.2	3.7 ± 0.6
Well No. 20	10.2 ± 0.3	6.4 ± 0.7
Well No. 22	10.0 ± 0.3	3.7 ± 0.6
Well No. 23	8.5 ± 0.3	8.8 ± 0.8
Well No. 25	3.6 ± 0.2	3.6 ± 0.6

Pet. ¶16

All the well samples are from the deep wells; radium concentrations in the shallow wells have been found to be negligible (Pet. ¶19).

On July 19, 1985, in Board Proceeding PCB 85-51 (65 PCB 101), Aurora was granted a five-year variance from the same regulations at issue here. That variance expired by its own terms on July 1, 1990.

REGULATORY FRAMEWORK

In recognition of a variety of possible health effects occasioned by exposure to radioactivity, the 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 same limit as the maximum allowable concentrations under Illinois law. Pursuant to Section 17.6 of the Illinois Environmental Protection Act (Ill. Rev. Stat. 1989,

ch. 111 $\frac{1}{2}$, par. 1017.6), any revision of the 5 pCi/l standard by the USEPA will automatically become the standard in Illinois.

The action that Aurora 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 Aurora. Rather, the action Aurora 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. 1981, ch. 111 $\frac{1}{2}$, 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 Aurora requests be lifted. Moreover, grant of the requested variance would not absolve Aurora from compliance with the combined radium standard, nor insulate Aurora from possible enforcement action brought for violation of those standards, as Aurora itself notes (Pet. ¶40).

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 $\frac{1}{2}$, 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 (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 which 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 which is reasonably calculated to achieve compliance within the term of the variance.

COMPLIANCE PROGRAM

Aurora intends to achieve compliance as a result of a major waterworks improvement project which is currently in progress and which is anticipated will be completed by July 1, 1991 (Pet. ¶23). The program consists of development of the Fox River as a source of supply, development of additional shallow wells, and continued use of deep wells. Water from these three sources will be blended and treated and then distributed to customers (Pet. ¶21). The total project cost is estimated to be \$36,823,370 (Pet. ¶22).

The status of the various remaining major aspects of the project, as of the date of filing of the Petition, were as follows:

1.	General Engineering	Complete
2.	Treatment Plant Facilities	
	Design	Complete
	Construction/Operation	July 1, 1991
3.	Transmission Mains	
	Design	August 1, 1990
	Construction	July 1, 1991
4.	Fox River Intake	
	Design	August 1, 1990
	Construction	July 1, 1991
5.	Well Development	
	Design	Complete
	Construction	September 1, 1990
6.	Well Collection Mains	
	Design	Complete
	Construction	December 1990
7.	Distribution Piping	
	Design	September 1, 1990
	Construction	July 1, 1991

Pet. ¶22

Aurora notes that, among other matters, it has already completed and placed into operation three new shallow wells during 1990 (Pet. ¶15, ¶26). It has also during the pendency of the previous variance undertaken the work preparatory to using the Fox River as a major new water source (Pet. ¶21-22, ¶26).

HARDSHIP

Aurora 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 occur. This hurts prospective home purchasers and business developers as well as Petitioner's tax base, and, therefore, would make ultimate compliance by Petitioner even more difficult. ... there continues to be a great need for expansion of the present water system in order to serve the domestic, as well as fire protection, needs of the rapidly expanding local population. (Pet. ¶34-35).

Aurora foresees the need to extend water connections both to projects which are currently under construction and to projects which are planned (Pet. ¶14). Projects under construction include:

1. White Eagle Club, a 350 acre, 933 unit housing development.
2. Roger Wolf subdivision, a 152 housing development.
3. Meadow Lakes Corporate Business Center, a 295 acre campus housing three office and warehouse buildings.
4. Meridian Business Campus, a 700 acre campus upon which more than 600,000 square feet of building space is currently under construction.
5. Golden Oaks, a 125 acre, 420 unit housing development.

Pet. ¶14

Projects which are planned include:

1. Orchard Valley, a 480 mixed-use development including approximately 1,000 housing units.
2. Farnsworth International Development, a 440 acre business campus.
3. White Oaks Business Park, a 237 acre business park.
4. Link Programs, Inc., a \$6 million downtown redevelopment project.
5. Diamond Bay, a 32 acre, 329 unit townhouse development.

6. Palomino Springs, a 30 acre, 30 unit housing development.
7. Riemer Property, a 95 acre multiple use housing and commercial development.

Pet. ¶14

The Agency also contends that denial of variance would constitute an arbitrary or unreasonable hardship (Rec. ¶20).

PUBLIC INTEREST

Although Aurora 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 the by granting of variance (Pet. ¶30). The Agency contends likewise (Rec. ¶16). In support of their contention, the Agency and Aurora 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, and to updated testimony presented by Dr. Toohey in the Board's hearing on the Braidwood variance, PCB 89-212 (Rec. ¶15).

The Agency believes that while radiation at any level creates some risk, the risk associated with Aurora'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 contaminants in question in the Petitioner's water for the limited time period of the variance, and the possibility of compliance with the MAC standard due to blending or a new deep well, etc., 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 all the facts and circumstances in this case, denial of variance would impose an arbitrary or unreasonable hardship upon Aurora. 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 further finds that the conditions as recommended by both the Agency (Rec. ¶30) and Aurora (Pet. ¶29) are appropriate to this grant of variance. The term of the variance will be that requested by Aurora.

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

ORDER

Petitioner, City of Aurora, is hereby granted variance 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:

- (1) Compliance shall be achieved with any standards for radium then in effect no later than July 1, 1992.
- (2) This variance shall terminate on July 1, 1992 or 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 then in effect.
- (3) 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 so as 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
2200 Churchill Road
Springfield, Illinois 62794-9276

- (4) By January 1, 1991, Petitioner shall apply to the Agency at the address below for any additional 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:

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

- (5) By April 1, 1991, Petitioner shall advertise for bids, to be submitted within 60 days, from contractors to do the necessary work described in the construction permits. Petitioner shall accept appropriate bids within a reasonable time. Petitioner shall notify the Agency at the address in condition (4) of each of the following actions: 1) advertisement for bids, 2) names of successful bidders, and 3) whether Petitioner accepted the bids.
- (6) 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 maximum allowable concentration of combined radium, or with any standards for radium in drinking water then in effect, shall begin no later than July 1, 1991.
- (7) 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.

- (8) 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.
- (9) 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. Specifically, water from shallow well 101 and other three new shallow wells, which are low in radium, shall be blended with the deep well water to extent possible in order to reduce radium concentrations in the distribution system. Also, Petitioner shall utilize the existing deep wells which have the lowest radium concentrations, and shall minimize use of the existing deep wells which exhibit the higher concentrations of radium.
- (10) Petitioner shall provide written progress reports to the Agency at the address below every six months concerning steps taken to comply with paragraphs 1, 3-9. 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 Council, 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 90-131,
November 8, 1990.

Petitioner

Authorized Agent

Title

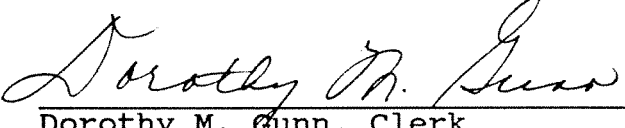
Date

Section 41 of the Environmental Protection Act, Ill. Rev.
Stat. 1989 ch. 111 $\frac{1}{2}$ 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.

Board Member 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 8th day of November, 1990, by
a vote of 6-1.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board