

ILLINOIS POLLUTION CONTROL BOARD  
December 20, 1990

CITY OF GENOA, )  
 )  
 Petitioner, )  
 )  
 v. ) PCB 90-166  
 ) (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 Genoa ("Genoa") on August 30, 1990 of a Petition for Variance ("Pet."). Genoa 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 Genoa'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 F<sup>1</sup>. Variance is requested for five years.

The Illinois Environmental Protection Agency ("Agency") filed its Variance Recommendation ("Rec.") on November 7, 1990<sup>2</sup>. 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 Genoa 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.

BACKGROUND

Genoa is a municipality located in DeKalb County. Among other services, Genoa provides potable water supply and

---

<sup>1</sup> 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).

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

distribution to 1,100 residential, commercial, and industrial utility customers representing approximately 3,500 residents (Pet. ¶10). Genoa's water supply system is a deep well system drawn from three wells, identified respectively as wells #2, #3, and #4 (Pet. ¶13); well #4, the newest well, was completed in 1970 (Id.).

Genoa was first advised that its water supply was being placed on restricted status by letter from the Agency dated October 4, 1985 (Pet. ¶15). Placement on restricted status was based on a combined radium concentration of 6.9 pCi/l (Id.). More recent analyses gave the following results (Pet. ¶18):

<u>Date</u>	<u>Location</u>	<u>Concentration</u>
1-19-89	117 Emmet	5.2 pCi/l
12-20-88	730 Park	6.8 pCi/l
9-12-88	System	4.4 pCi/l
6-23-88	Wells #3 and #4	2.65 pCi/l
3-15-88	System	2.45 pCi/l

Genoa has neither sought nor received prior variance as regards this matter.

#### 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 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 Genoa 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 Genoa. Rather, the action Genoa 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 Genoa requests be lifted. Moreover, grant of the requested variance would not absolve Genoa from compliance with the combined radium standard, nor insulate Genoa from possible enforcement action brought for violation of those standards, as Genoa itself notes (Pet. ¶42).

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 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

Genoa is considering various compliance options, including treatment and either converting to or augmenting/blending with shallow, low-radium groundwaters (Pet. ¶20). At this time Genoa has not yet selected a particular compliance plan. Rather, it has retained the services of an outside consultant to assist it with reviewing and evaluating the problem and to prepare recommendations for compliance. Genoa commits to defining its compliance method and carrying it through to compliance during the term of the requested variance (Pet. ¶30).

The Agency has no objection to Genoa's consideration of the compliance methods suggested (Rec. ¶19).

#### HARDSHIP

Genoa 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 rapidly expanding local population. (Pet. ¶36-7).

Genoa further contends that the expenditure of public funds for treatment facilities which 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. ¶35). The Agency also contends that denial of variance would constitute an arbitrary or unreasonable hardship (Rec. ¶22).

#### PUBLIC INTEREST

Although Genoa 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. ¶27). The Agency contends likewise (Rec. ¶16). In support of their contention, Genoa 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<sup>3</sup>, 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

---

<sup>3</sup> Genoa requests via motion filed on October 25, 1990 that the following elements of the record developed in R85-14 be incorporated into the instant record: extracted testimony of Dr. Richard E. Toohey as given on July 30, 1985 and August 30, 1985, extracted testimony of Dr. James Stebbings as given on August 2, 1985, and revised testimony of Dr. Richard E. Toohey as marked as Agency Exhibit 13. Genoa has provided copies of each of the requested incorporations. Genoa's motion for incorporation is hereby granted.

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 Genoa'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. In so saying, the Agency emphasizes that it continues to place a high priority on compliance with the standards.

(Rec. ¶29 and ¶30)

#### NEED FOR VARIANCE

Examination of the record of radium analyses presented to the Board raises the question whether Genoa needs the variance it requests. While we recognize that the samples come from four different locations, the four most recent<sup>4</sup> samples reported by Genoa average to slightly less than the 5.0 pCi/l standard. On the other hand, Genoa has not been able to consistently provide water that averages less than 5.0 pCi/l at all points in its distribution system. Moreover, the most recent quarterly samples are among the worst of the available results. Given the likelihood that this trend would continue, and under the facts of this proceeding, the Board believes that the prudent course of

---

<sup>4</sup> Pursuant to 35 Ill. Adm. Code 611.731(a) compliance with the combined radium standard is based on an analysis of a composite of four consecutive quarterly samples or the average of the analyses of four samples obtained at quarterly intervals.

action is to allow that variance is necessary<sup>5</sup>. If Genoa can at any time during the term of the variance demonstrate compliance, the variance by its own terms will terminate.

#### 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 Genoa. 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 Genoa's 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 in such manner as to best assure that Genoa will achieve compliance with whatever standard is ultimately applicable and that Genoa will not need to prematurely return to this Board to request a variance extension.

With these ends in mind, the Board will require that Genoa timely proceed with analyzing and identifying 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 Genoa still need to take steps to come into compliance after USEPA action, Genoa will have one year thereafter to make the improvements necessary to achieve compliance and one additional year for a compliance demonstration. Finally, should the USEPA default in taking action on the radium standard, the variance will be

---

<sup>5</sup> The Board does not grant variance where variance is not necessary, and variance is generally not necessary where there is no showing of violation of the standard from which variance is sought (e.g., Village of North Aurora v. IEPA, PCB 89-66, slip. op. p. 9; City of Spring Valley v. IEPA, PCB 88-181, 95 PCB 57; Village of Minook v. IEPA, PCB 85-100, 65 PCB 527; City of West Chicago v. IEPA, PCB 85-2, 64 PCB 249; The Village of Elk Grove Village v. IEPA, PCB 84-158, 62 PCB 295; City of White Hall v. IEPA, PCB 84-126, 61 PCB 203; City of Rolling Meadows v. IEPA, PCB 80-70, 39 PCB 63).

conditioned so as to provide for achievement and demonstration of compliance no later than five years hence.

Genoa is to bear in mind that today's action is solely a grant of variance from standards of issuance and restricted status. Genoa is not being granted variance from compliance with the radium standard, nor does today's action insulate Genoa 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, Village of Genoa, 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:

- (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
  - (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 611.731(a), 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) December 20, 1995.
- (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 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

- (E) Within three months of this grant of variance, Petitioner shall secure professional assistance (either from present staff or an outside consultant) in investigating compliance options, including the possibility and feasibility of achieving compliance by blending water from its shallow well(s) with that of its deep well(s).
- (F) Within four months of this grant of variance, evidence that such professional assistance has been secured shall be submitted to the Agency at the following address:

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

- (G) Within one year of this grant of variance, Petitioner shall complete investigating compliance methods, including those treatment techniques described in the Manual of Treatment Techniques for Meeting the Interim Primary Drinking Water Regulations, USEPA, May 1977, EPA-600/8-77-005, and prepare a detailed Compliance Report showing how compliance will be achieved within the shortest practicable time, but not later than five years from the date of grant of this variance.



- (H) Within ten months of this grant of variance, Petitioner shall submit such Compliance Report to the Agency at the address identified in Condition D.
- (I) Within three months of USEPA action or within 27 months of this grant of variance, 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.

- (J) 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 (D) of each of the following actions: 1) advertisement for bids, 2) names of successful bidders, and 3) whether Petitioner accepted the bids.
- (K) 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 6 months after USEPA action. If there is no USEPA action within two years of grant of this variance, Petitioner shall begin construction no later than three years after grant of this variance.
- (L) 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, 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.

- (M) 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, 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.
- (N) 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.
- (O) Petitioner shall provide written progress reports to the Agency at the address in Condition D every six months concerning steps taken to comply with paragraphs B-N. Progress reports shall quote each of said paragraphs and immediately below each paragraph state what steps have been taken to comply with each paragraph.

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 90-166  
 December 20, 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 Members J.D. Dumelle and 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 20<sup>th</sup> day of December, 1990, by a vote of 5-2.

  
\_\_\_\_\_  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board