

ILLINOIS POLLUTION CONTROL BOARD
August 9, 1990

TOWN OF CORTLAND,)
)
Petitioner,)
)
v.) PCB 90-43
) (Variance)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Respondent.)

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

This matter comes before the Board upon the filing by the Town of Cortland ("Cortland") of a Petition for Variance ("Pet") on March 29, 1990. Cortland seeks variance 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 Cortland's public water supply of the 5 picocuries per liter ("pCi/l") combined radium-226 and radium-228 standard of 35 Ill. Adm. Code 604.301(a). The variance is requested for a period of five years from the date variance is granted.

On June 14, 1990 the Illinois Environmental Protection Agency ("Agency") filed a Variance Recommendation ("Rec.") in support of grant of variance subject to conditions. The Agency's recommended conditions are similar to those proposed by Cortland (Pet. at par. 31).

Based on the record before it, the Board finds that Cortland 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.

Cortland has neither sought nor received any prior variance relating to public water supplies prior to the instant action.

BACKGROUND

Cortland is a community located in east-central DeKalb County. Among other services, Cortland provides a potable public water supply derived from two wells. Cortland provides water to a population of 133 residential, industrial, and commercial utility customers representing some 400 (Pet. at par 10).

Cortland was first advised of the high radium content in its water supply by letter from the Agency dated January 9, 1990, and was notified of placement on restricted status by letter from the Agency dated January 11, 1990 (Pet. at par. 15). The Agency based its determination on sampling results which showed a combined radium content of 8.1 pCi/l (Pec. at par. 10). More recent results from samples collected in January 1990 showed (Pet. at par. 18):

	(pCi/l)		
	<u>Ra-226</u>	<u>Ra-228</u>	<u>Combined</u>
Well No. 1	4.0	3.2	7.2
Well No. 2	5.1	2.4	7.5

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 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^{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 Cortland 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 Cortland. Rather, the action Cortland 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^{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 Cortland requests be lifted. Moreover, grant of the requested variance would not absolve Cortland from compliance with the combined radium standard, nor insulate Cortland from possible enforcement action brought for violation of those standards.

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^{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

Cortland has retained the services of an outside consultant to assist it in reviewing and evaluating compliance alternatives (Pet. at par. 22). Among alternatives under consideration are (Pet. at par. 21):

- a. Construction of a new well into a low radium content groundwater source to be used
 1. for blending purposes with existing wells, or
 2. as primary water supply

- b. Construction of treatment facilities in order to properly treat all water supplied by the existing deep wells.

Due to the recentness of discovery of elevated radium in Cortland's water supply, Cortland has not yet been able to gather all the information necessary to completely assess these alternatives. Nevertheless, Cortland presently anticipates implementation of alternative a., above (Pet. at par. 23). Additional uncertainty arises due to current review of the combined radium standard by the USEPA (Rec. at par. 14). Among alternatives which the USEPA is apparently considering is a 5.0 pCi/l standard for each of the two radium isotopes (Pet. at par. 36). Should this alternative be implemented, Cortland's most effective compliance program might differ substantially from a compliance program needed to comply with the current standard.

Uncertainties notwithstanding, Cortland commits to a schedule of compliance with the following benchmarks (Pet. at par. 31):

- 1) Within three months following grant of variance:
Initiate program of groundwater resource investigation.
- 2) Within eighteen months following grant of variance:
Preparation of Compliance Report showing how compliance will be achieved in the shortest practicable time.
- 3) Application for necessary permits and advertisement for bids within standard timeframes following 2).
- 4) Within 3 1/2 years following grant of variance:
Initiation of all necessary construction.
- 5) Within five years following grant of variance:
Achievement of compliance

HARDSHIP

Cortland believes that a requirement to come into immediate compliance would impose an arbitrary or unreasonable hardship. Cortland and the Agency both note that because of Cortland's inability to receive permits for water main extensions, any economic growth dependent on those water main extensions would not be allowed.

Lastly, Cortland contends that the hardship resulting from denial of the requested variance would outweigh the injury of the public (see below). Cortland thus believes that the hardship rises to the level of arbitrary or unreasonable hardship (Pet. at par. 32). The Agency agrees that denial of variance would

constitute an arbitrary or unreasonable hardship (Rec. at par. 21).

PUBLIC INJURY

Although Cortland has not undertaken a formal assessment of the environmental effect of its requested variance, it contends that extension of its watermains will not cause any significant harm to the environment or to the people served by the potential watermain extensions for the limited time period of the requested variance (Pet. at par. 28). The Agency contends likewise (Rec. at par. 16). In support of these contentions, Cortland and the Agency reference testimony presented by Richard E. Toohey, Ph.D. and James Stebbins, Ph.D., both 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.

The Agency believes that while radiation at any level creates some risk, the risk associated with Cortland's water is low (Rec. at par. 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 new shallow wells, 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. * * * In so saying, the Agency emphasizes that it continues to place a high priority on compliance with the standards.

(Rec. at par. 28 and 29).

CONSISTENCY WITH FEDERAL LAW

The Agency believes that Cortland may be granted variance consistent with the requirements of the Safe Drinking Water Act (42 U.S.C. §300(f)) and corresponding regulations because the requested relief is not variance from a national primary drinking water regulation (Rec. at par. 24).

CONCLUSION

The Board finds that, in light of all the facts and circumstances of this case, denial of variance would impose an arbitrary or unreasonable hardship upon Petitioner. 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 accepts Cortland's general benchmark dates (Pet. at par. 31), with only minor modification as recommended by the Agency (Rec. at par. 30).

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

ORDER

1. Petitioner, the Town of Cortland, is hereby granted variance from 35 Ill. Adm. Code 602.105(a), Standards of Issuance, and 602.106(b), Restricted Status, but only as they relate to the 5 pCi/l combined radium-226 and radium-228 standard of 35 Ill. Adm. Code 604.301(a), subject to the following conditions:
 - A) This variance expires five years from grant of this variance, or when analysis pursuant to 35 Ill. Adm. Code 605.104(a), or any compliance demonstration method then in effect, shows compliance with whatever standards are then in effect for radium, whichever occurs first.
 - B) Compliance shall be achieved with any standards for radium then in effect no later than five years from the grant of this variance.
 - C) 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 its 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 of 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 analysis to:

Illinois Environmental Protection Agency
Compliance Assurance Section
Division of Public Water Supplies
2200 Churchill Road
Springfield, Illinois 62794-9276

- (D) Within three months after this grant of this variance, Petitioner shall initiate a program of groundwater resources investigation, including both shallow and deep groundwater resources, to identify additional sources of groundwater having an acceptable level of radium.
- (E) Within eighteen months after 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 submit to the address in (C) a detailed Compliance Report showing how compliance will be achieved within the shortest practicable time, but no later than five years from the date of variance.
- (F) Within two years after this grant of variance, unless there has been a written extension by the Agency, 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.

- (G) 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 (F) of each of the following actions: 1) advertisement for bids, 2) names of successful bidders, and 3) whether Petitioner accepted the bids.

- (H) 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 three years after grant of this variance and shall be completed no later than four years after grant of this variance.
- (I) Pursuant to 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 combined radium standard.
- (J) Pursuant to 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 combined radium. The notice shall state the average content of combined radium in samples taken since the last notice period during which samples were taken.
- (K) 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.
- (L) Petitioner shall provide written progress reports to the Agency at the address below every six months concerning steps taken to comply with paragraphs C-K. 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.

- 2) Within 45 days of the date of this Order, Petitioner shall execute and forward to Bobella Glatz, Enforcement Programs, 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 90-43, August 9, 1990.

Petitioner

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.

Board Member Jacob D. Dumelle dissented.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 9th day of August, 1990, by a vote of 5-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board