

ILLINOIS POLLUTION CONTROL BOARD  
August 13, 1992

CITY OF ALEDO,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 92-91
	)	(Variance)
ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
	)	
Respondent.	)	

OPINION AND ORDER OF THE BOARD (by J. C. Marlin):

This matter is before the Board on the June 16, 1992, filing by petitioner, the City of Aledo, of a petition for variance. The petitioner seeks relief from 35 Ill. Adm. Code 602.105(a), "Standards for Issuance", and 602.106(a), "Restricted Status", to the extent those rules relate to violation by the petitioner's public water system (PWS) of the 5 picocuries per liter (pCi/L) combined radium-226 and radium-228 maximum contaminant level (MCL) and the 15 pCi/L gross alpha particle activity MCL.<sup>1</sup> The petitioner requests variance for a period of five years.

On July 13, 1992, the Illinois Environmental Protection Agency (Agency) filed its variance recommendation. The Agency recommends that the variance be granted, with respect to combined radium, subject to certain conditions. (Rec. 1, 10) The petitioner waived hearing and none has been held.

For the following reasons, the Board finds that the petitioner 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 with respect to combined radium, subject to conditions set forth in the attached Order.

BACKGROUND

The petitioner is a City in Mercer County. The petitioner owns and operates a PWS serving a population of 3681, with 1669

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<sup>1</sup>The standard for combined radium was formerly found at 35 Ill. Adm. Code 604.301(a) and the standard for gross alpha particle activity at 35 Ill. Adm. Code 604.301(b); effective September 20, 1990 they were recodified at 35 Ill. Adm. Code 611.330(a) and (b), respectively.

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service connections. (Pet. 4) The PWS includes two currently operational deep wells, pumps, and distribution facilities. (Pet. 5)

The most recent analysis for radium content in the PWS was made on June 7, 1991, and showed a level of 5.6 pCi/L for combined radium. (Rec. 4)

The Agency advises that on August 2, 1991, it notified petitioner by letter that its PWS exceeded the combined radium content MCL. (Pet. 9, Rec. 4)

#### 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

- 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.

The principal effect of these regulations is to provide that PWSs 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 MCLs. The petitioner requests that it be allowed to extend its water service while it pursues compliance with the radium MCLs, 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. 1991, 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), 133 Ill.App.3d 343, 481 N.E.2d 1032). Only with such showing can the claimed hardship rise to the level of arbitrary or unreasonable hardship. Where the petitioner seeks to extend a variance, the petitioner must show satisfactory progress.

A further feature of a variance is that it is, by its nature, 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.

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 MCLs at issue, nor does it insulate a petitioner from possible enforcement action brought for violation of those MCLs. The underlying MCLs remain applicable to the petitioner regardless of whether variance is granted or denied.

MCLs for radium were first adopted as National Interim Primary Drinking Water Regulations (NIPDWRs) by USEPA in 1976. The MCLs 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, these MCLs nevertheless are the maximum allowable concentrations under both federal and Illinois law, and will remain so unless modified by the USEPA.<sup>2</sup>

Over much of the fifteen years since their original promulgation, the current radium MCLs have been under review at the federal level. USEPA first proposed revision of the MCLs 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,

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<sup>2</sup>In anticipation of USEPA revision of the radium MCL, 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.

1991, USEPA announced a proposal to modify the radium MCLs.<sup>3</sup> USEPA proposes to replace the 5 pCi/L combined radium MCL by separate MCLs of 20 pCi/L each for radium-226 and radium-228. Under the USEPA's calendar, these MCLs are scheduled for promulgation by April, 1993 with an effective date of October, 1994.

#### NECESSITY FOR GROSS ALPHA VARIANCE

Petitioner has requested a variance with respect to both the combined radium and the gross alpha particle activity MCLs. (Pet. 1) However, there is no indication that water in the PWS has exceeded the gross alpha particle activity MCL. (Rec. 2) The Agency has recommended that the variance not be granted with respect to that MCL. (Rec. 1, 10) See Marathon Oil v. IEPA, PCB 91-173, January 1, 1992. The Board will limit the variance to the combined radium MCL.

#### COMPLIANCE PLAN

Petitioner envisions two alternatives for lowering the radium levels. The first would involve drilling new shallow wells in an area 11 miles west of the City, at an estimated investment of some \$3.17 million. The second would involve installation of a reverse osmosis unit, at an investment of \$1.69 million. (Pet. 7, Attachment 3)

The Agency has not recommended either plan. Rather, the petitioner would be required to file construction permit applications reflecting its choice of compliance alternatives, within a time schedule keyed to USEPA action. (Rec. 12)

The conditions of this variance are somewhat different than those recommended in other recent radium variances, including Village of Glasford v. IEPA, PCB 92-18, May 21, 1992, in that the Agency has not recommended that the petitioner be required to attain compliance within the term of the variance. Rather, construction is required only in the event that USEPA takes action to confirm the existing MCL, or replace it with another MCL or measurement method such that petitioner would still be in violation. (Rec. 10 - 12) This may be justified in that, unlike most other radium variance petitioners, the petitioner has first violated the MCL recently, is barely over the MCL and has never before received a variance.

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<sup>3</sup>Publication occurred at 56 Fed. Reg. 33050, July 18, 1991.

HARDSHIP

The petitioner contends that the hardship resulting from denial of the requested variance outweighs any injury to the public from granting the variance. (Pet. 12) The petitioner argues that denial of the requested variance would result in an arbitrary or unreasonable hardship because petitioner would not be able to extend water mains to include residents of the City who are not presently served. (Pet. 12, 14)

The Agency agrees that denial of the variance would impose an arbitrary or unreasonable hardship on the petitioner. (Rec. 10)

ENVIRONMENTAL AND PUBLIC HEALTH IMPACT

Although the petitioner has not undertaken a formal assessment of the environmental and public health effects of its requested variance, it contends that there will be minimal or no adverse impact caused by the granting of the variance. (Pet. 12) The Agency agrees with the petitioner's assertion. (Rec. 7) The Agency cites the testimony presented by Richard E. Toohey, Ph.D., of Argonne National Laboratory, at the July 30 and August 2, 1985 hearings for the Proposed Amendments to Public Water Supply Regulations 35 Ill. Adm. Code 602.105 and 602.106 (R85-14) in support of the assertion that the variance will not result in any adverse environmental impact. (Rec. 6) The Agency also refers to updated testimony presented by Dr. Toohey in the Board's hearing on a variance requested by the City of Braidwood in PCB 89-212. (Rec. 6)

While the Agency believes that radiation at any level creates some risk, the risk associated with the petitioner'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 of the public from grant of that 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. 9)

#### CONSISTENCY WITH FEDERAL LAW

The Agency states that the requested variance may be granted consistent with the Safe Drinking Water Act (42 U.S.C. 300(f)) and corresponding regulations (40 CFR 141) because the variance does not grant relief from compliance with the federal primary drinking regulations. (Rec. 8)

#### CONCLUSION

Based upon the record, the Board finds that, although there is no need for a variance with respect to the gross alpha particle activity MCL, immediate compliance with the "Standards for Issuance" and "Restricted Status" regulations with respect to the combined radium MCL would impose an arbitrary or unreasonable hardship on the petitioner. The petitioner has committed to a schedule which will result in compliance if USEPA confirms the combined radium standard. The Board will grant this variance for a maximum period of five years.

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

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

#### ORDER

The requested variance with respect to the gross alpha particle activity MCL in 35 Ill. Adm. Code 611.330(b) is denied. The City of Aledo (petitioner) is hereby granted a variance from 35 Ill. Adm Code 602.105(a), "Standards for Issuance", and 602.106(b), "Restricted Status", as they relate to the maximum contaminant level (MCL) for combined radium-226 and radium-228, as set forth in 35 Ill. Adm. Code 611.330(a), for a period of five years, subject to the following conditions:

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- (A) For purposes of this Order, the date of USEPA action shall consist of the earlier date of the:
- (1) Date of promulgation by the U.S. Environmental Protection Agency (USEPA) of any regulation which amends the MCL for combined radium, either of the isotopes of radium, or the method by which compliance with a radium MCL is demonstrated; or
  - (2) Date of publication of notice by the USEPA that no amendments to the 5 pCi/L combined radium MCL or the method for demonstrating compliance with the MCL will be promulgated.
- (B) Variance shall terminate on the earliest of the following dates:
- (1) Two years following the date of USEPA action; or
  - (2) July 30, 1997; or
  - (3) When analysis pursuant to 35 Ill. Adm. Code 611.720(d), or any method of analysis then in effect, shows compliance with MCLs for radium then in effect.
- (C) In consultation with the Illinois Environmental Protection Agency (Agency), petitioner shall continue its sampling to determine 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 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 combined radium-226 and radium-228. 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  
Box 19276  
2200 Churchill Road  
Springfield, Illinois 62794-9276

- (D) At the option of petitioner, 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 after receipt of the most recent quarterly sample.
- (E) Within three months after USEPA action, petitioner shall apply to the Agency at the address below for all permits necessary for the construction, installation, changes or additions to the PWS needed for achieving compliance with the combined radium MCL, or with any other MCL for radium then in effect:

Illinois Environmental Protection Agency  
Division of Public Water Supplies  
Box 19276  
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 paragraph (C) within 30 days after each of the following:
  - (1) Advertisement for bids;
  - (2) Names of successful bidders; and
  - (3) Whether petitioner accepted said bids.
- (G) Construction allowed on said construction permits shall begin within a reasonable time after bids are 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.
- (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 person served by the PWS a written notice to the effect that petitioner is not in compliance with the MCL in question. 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.

- (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 person served by the PWS 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(a) Restricted Status, as they relate to the combined radium MCL.
- (J) Until full compliance is achieved, petitioner shall take all reasonable measures with its existing equipment to minimize the level of combined radium-226 and radium-228 in its finished drinking water.
- (K) Petitioner shall provide written progress reports to the Agency 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. Progress reports shall be addressed to:

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

- (L) Within forty-five days of the date of this Order, petitioner shall execute and forward to:

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

a Certificate of Acceptance containing an agreement to be bound to all terms and conditions of the granted

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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 and of no force and effect as a shield against enforcement of rules from which this variance is granted. The form of Certificate is as follows.

I (We), \_\_\_\_\_,  
hereby accept and agree to be bound by all terms and  
conditions of the Order of the Pollution Control Board  
in PCB 92-91, August 13, 1992.

\_\_\_\_\_  
Petitioner

\_\_\_\_\_  
Authorized Agent

\_\_\_\_\_  
Title

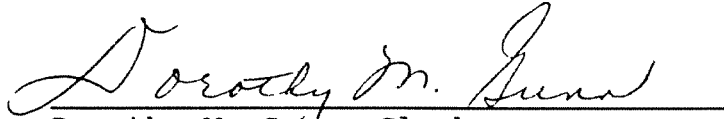
\_\_\_\_\_  
Date

IT IS SO ORDERED.

B. Forcade dissented.

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1991, 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. (But see also 35 Ill. Adm. Code 101.246, Motions for Reconsideration, and Castenada v. Illinois Human Rights Commission (1989), 132 Ill.2d 304, 547 N.E.2d 437.)

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 13<sup>th</sup> day of August, 1992 by a vote of 6-1.

  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board