

ILLINOIS POLLUTION CONTROL BOARD  
June 20, 1991

CITY OF WEST CHICAGO, )  
 )  
 Petitioner, )  
 )  
 v. ) PCB 91-41  
 ) (Variance)  
 ILLINOIS ENVIRONMENTAL )  
 PROTECTION AGENCY, )  
 )  
 Respondent. )

OPINION AND ORDER OF THE BOARD (by M. Nardulli):

This matter comes before the Board on the March 6, 1991 filing by petitioner City of West Chicago (City) of a petition for variance. The City 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 the City's public water supply of the 5 picocuries per liter ("pCi/l") combined radium-226 and radium-228 of 35 Ill. Adm. Code Subtitle F.<sup>1</sup> The City requests a five-year variance.

On May 3, 1991, the Illinois Environmental Protection Agency (Agency) filed its variance recommendation. The Agency recommends that the variance be granted subject to certain conditions. The City waived hearing and none has been held.

For the following reasons, the Board finds that the City 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, subject to conditions set forth in the attached order.

BACKGROUND

The City is a municipality located in DuPage County. (Pet. 1) The City provides public services including potable water supply and distribution for 3,286 residential and 713 industrial and commercial utility customers representing approximately 14,000 residents and 800 industries and businesses employing 12,000 persons as of 1991. (Pet. 5)

The City's water system includes three deep wells, three shallow wells, pumps and distribution facilities. (Pet. 5,6) If the requested variance is granted, the City anticipates extending

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<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 at 35 Ill. Adm. Code 611.330(a).

service to the DuPage airport expansion, Meadow Wood subdivision, Fermi Center II, Woodland Ridge subdivision, Hickory Lane residential area and a proposed townhome development. (Pet. 6)

### 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 and 15 pCi/l of gross alpha particle activity. Illinois subsequently adopted these same limits 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 the City requests here is not variance from the maximum allowable concentrations for either radium or gross alpha particle activity. Regardless of the action taken by the Board in the instant matter, these standards will remain applicable to the City. Rather, the action the City requests is the temporary lifting of prohibitions imposed pursuant to 35 Ill. Adm. Code 602.105 and 602.106. In pertinent part these Sections provide:

#### 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  $\frac{1}{2}$ , 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 the City requests be lifted. Moreover, grant of the requested variance would not relieve the City from compliance with the combined radium or

gross alpha particle activity standards, nor insulate the City 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  $\frac{1}{2}$ , 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 PLAN

The City first became aware that it was exceeding the maximum allowable concentration level (MCL) for combined radium in January of 1991 when the Agency advised the City that its testing indicated a concentration of 7.3 pCi/l. (Pet. 7) The City proposes two alternative methods for achieving compliance: (1) using existing and new shallow wells for blending. Estimated construction costs are \$1,065,000 and estimated time for implementation is two years; and (2) construction of treatment facilities to treat all well water for a total cost of \$6,000,000. The estimated implementation time is five years. (Pet. 8) The City estimates that the per capita costs for constructing the treatment facilities would be a one-time expense of \$429, that the increase in monthly water bills for the average residential consumer for construction costs would be \$15 per month for 15 years and that the increase for the average residential consumer for the increased cost of operation, maintenance and sludge removal would be \$7 monthly for an indefinite time period. (Pet. 8,9)

The City has hired a consultant to review and evaluate the compliance alternatives. (Pet. 9) However, the City anticipates implementation of the "blending alternative" which it believes will yield an MCL below 5 pCi/l as the "short-term solution". (Pet. 9) The City estimates that 18 months is needed to fully

test and implement this alternative. (Pet. 9) If sampling indicates that the "blending alternative" is ineffective in achieving compliance, the City would implement the second alternative which would take two and one-half years to fully implement. (Pet. 9) Hence, the City requests a five-year variance. (Pet. 9)

#### HARDSHIP

The City contends that the hardship resulting from denial of the requested variance outweighs any injury to the public from granting the variance. (Pet. 16) The City notes that the promulgation of a new radium standard by the United States Environmental Protection Agency (USEPA) may significantly alter the City's compliance status and may even obviate the need for a continued variance from Restricted Status.<sup>2</sup> According to the City, "the substantial expenditure of public funds for treatment facilities which may become obsolescent in the near future is not in the public interest and does not grant a corresponding benefit to the public." (Pet. 15) The City further argues that denial of the requested variance results in an arbitrary and unreasonable hardship because it halts construction and hurts prospective home buyers as well as business developers and the City's tax base. Lastly, the City contends that there is a great need for the expansion of its water distribution system to serve the domestic and fire protection requirements of the area. (Pet. 16)

The Agency agrees that denial of the variance would impose an arbitrary or unreasonable hardship on the City. (Rec. 8)

#### ENVIRONMENTAL IMPACT

Although the City has not undertaken a formal assessment of the environmental effects of its requested variance, it contends that there will be minimal or no adverse impact caused by the granting of the variance. (Pet. 11) The Agency agrees with the City's assertion. (Rec. 4-5) Both the City and the Agency cite 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 (R85-14), 35 Ill. Adm. Code 602.105 and 602.106 in support of the assertion that the variance will not result in any adverse environmental impact. (Pet. 11; Rec. 5) The Agency also refers to updated testimony presented by Dr. Toohey in the Board's

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<sup>2</sup> In a federal register notice published April 22, 1991, USEPA states that it will publish a Notice of Proposed Rulemaking ("NPRM") in June, 1991, and expects to issue final action on a new radium standard in April of 1993 (56 Fed. Reg. 18014, April 22, 1991).

hearing on a variance requested by the City of Braidwood in PCB 89-212. (Rec. 5)

While the Agency believes that radiation at any level creates some risk, the risk associated with the City's water supply is very low. (Rec. 5) The Agency states that "an incremental increase in the allowable concentration for the contaminants in question even up to a maximum of two times the MCL for the contaminants in question should cause no significant health risk for the limited population served by new water main extensions for the time period of this recommended variance." (Rec. 5) 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 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 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. 8)

#### 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 Part 141) because the variance does not grant relief from compliance with the federal primary drinking regulations. (Rec. 7)

#### CONCLUSION

Based upon the record, the Board finds that immediate compliance with the "Standards for Issuance" and "Restricted Status" regulations would impose an arbitrary or unreasonable

hardship on the City of West Chicago. The Board also agrees with the parties that granting this variance does not pose a significant health risk to those persons served by any new water main extensions, assuming that compliance is timely forthcoming. This variance extends for a maximum period of five years subject to certain conditions which could result in an earlier termination of this variance.

The Board notes that timely compliance by the City may be affected by pending USEPA action to promulgate new standards for radionuclides in drinking water. USEPA recently proposed to publish its Notice of Proposed Rulemaking ("NPRM") in June 1991, and expects to issue final action on new radionuclide standards in April, 1993 (56 Fed. Reg. 18014, April 22, 1991). New radionuclide standards from USEPA could significantly alter the City's need for a variance or alternatives for achieving compliance. In recognition of this situation, as recommended by the Agency, the variance will contain suitable timeframes to account for the effects of any USEPA alteration (or notice of refusal to alter) of the radium or gross alpha standards.

Today's action is solely a grant of variance from standards of issuance and restricted status. The City is not granted variance from compliance with the combined radium standard, nor does today's action insulate the City in any manner against enforcement for violation of these standards.

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

#### ORDER

The City of West Chicago 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 standards for combined radium-226 and radium-228 in drinking water as set forth in 35 Ill. Adm. Code 611.330(a), subject to the following conditions:

- (A) For purposes of this Order, the date of USEPA action shall consist of the earlier date of the:
  - (1) Effective date of a regulation promulgated by the U.S. Environmental Protection Agency ("USEPA") which amends the maximum contaminant level for combined radium, either of the isotopes of radium, or the method by which compliance with a radium maximum contaminant level is demonstrated; or
  - (2) Date of publication of notice by the USEPA that no amendments to the 5pCi/l combined radium standard or the method for demonstrating compliance with

the 5pCi/l standard 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) June 20, 1996; or
  - (3) When analysis pursuant to 35 Ill. Adm. Code 611.720(d), or any compliance with standards then in effect, shows compliance with standards for radium in drinking water then in effect.
- (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 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 a location 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 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 analyzes 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 USEPA action or 24 months after this grant of 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 the 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 IEPA, 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 as addressed in condition (E) within 30 days of each of the following actions: 1) advertisements 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 for radium in drinking water then in effect, shall be completed no later than one year following the date of USEPA action on June 20, 1996, 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 will 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(a) 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 will send to each user of its public water supply a written notice to the effect that Petitioner is not in compliance with the standard 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.
- (J) Until full compliance is achieved, Petitioner shall take all reasonable measures with its existing



equipment to minimize the level combined radium, radium-266 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 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 and agreement to be bound to all terms and conditions of the granted 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 91-41, June  
20, 1991.

\_\_\_\_\_  
Petitioner

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

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Title

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Date

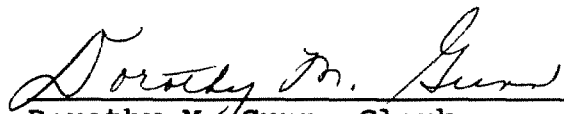
Section 41 of the Environmental Protection act, Ill. Rev. Stat. 1989 ch. 111 1/2 par. 1041, provides for appeal of final order of the Board within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements.

IT IS TO ORDERED.

J. D. Dumelle and B. Forcade dissent.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the

20th day of June, 1991, by a vote of 5-2.

  
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Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board