

ILLINOIS POLLUTION CONTROL BOARD  
February 7, 1991

CITY OF MORRIS, )  
 )  
 Petitioner, )  
 )  
 v. ) PCB 90-167  
 ) (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 Morris ("Morris") on September 4, 1990 of a Petition for Variance ("Pet.") and on October 16, 1990 of an Amended Petition for Variance ("Amend. Pet."). Morris 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 Morris' public water supply of the 5 picocuries per liter ("pCi/l") combined radium-226 and radium-228 standard and the 15 pCi/l gross alpha particle activity of 35 Ill. Adm. Code.Subtitle F<sup>1</sup>.

Facilities necessary to achieve compliance are anticipated to be in place very shortly. Variance is thus requested for a period of one year essentially to provide for the necessary compliance demonstration.

The Illinois Environmental Protection Agency ("Agency") filed its Variance Recommendation ("Rec.") on January 17, 1991 and an Amended Variance Recommendation ("Amend. Rec.") on January 22, 1991<sup>2</sup>. The Agency recommends that variance be granted, subject to conditions. Hearing was waived and none has been held.

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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 to 35 Ill. Adm. Code 611.330(a). The standard for gross alpha particle activity was formerly found at 35 Ill. Adm. Code 604.301(b); effective September 20, 1990 it was recodified to 35 Ill. Adm. Code 611.330(b). (see Illinois Register, Volume 14, Issue 40, October 5, 1990).

<sup>2</sup> The Agency's filings are accompanied by motions to file instanter. The motions are hereby granted.

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

#### BACKGROUND

Morris is a municipality located in Grundy County. Among other services, Morris provides potable water supply and distribution to a population of approximately 9,000 residents (Amend. Pet. ¶22). Morris' water supply system is a deep well system drawn from three wells, identified respectively as wells #3, #4, and #5 (Id. ¶15). Well #3, the oldest well, was placed into operation in 1915; well #5, the newest well, was placed into operation in 1954 (Id.).

The most recent reported combined radium concentration in Morris' water supply is 10.4 pCi/l (Amend. Pet. ¶17; Amend. Rec. ¶2); the gross alpha particle concentration is 25 pCi/l (Id.).

#### 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 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 Morris 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 Morris. Rather, the action Morris 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 Morris requests be lifted. Moreover, grant of the requested variance would not absolve Morris from compliance with the combined radium or gross alpha particle activity standards, nor insulate Morris 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 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

Morris intends to achieve compliance through use of a sodium zeolite ion exchange system, the installation of which is in progress (Amend. Pet. ¶26). In this system, water is passed through a special resin which exchanges radium (along with other cations including iron, manganese, and calcium) for sodium. Morris anticipates that the radium removal efficiency of the ion

exchange system will parallel that of the general hardness reduction, or approximately 72% (Id.). The resultant rinse and spent brine containing the exchanged ions will be discharged to a sanitary sewer and treated at the Morris' sewage treatment plant (Id.).

Morris anticipates that the installation of the ion exchange system will be completed between February 19 and March 1, 1991 (Amend. Pet. ¶4, 27) at an estimated cost of \$599,777 (Id. ¶27). Morris has issued general obligation bonds and has sufficient funds on hand to complete the installation; the Agency has also issued a construction permit for the project (Id. ¶2, 25).

The imminency of use of the ion exchange system notwithstanding, Morris will not be eligible for removal from restricted status, absent variance, for up to one year after the ion exchange system comes on line. The reason is that removal from restricted status for the parameters in question requires a demonstration that samples averaged over four quarters comply with the standards. Morris will thus need up to one additional year to collect the necessary samples.

#### PREVIOUS VARIANCE

Morris was previously granted variance for the same matters at issue here in Board Docket PCB 86-125 (74 PCB 390, January 8, 1987). That variance expired by its own terms on January 8, 1990. Under the terms of that variance Morris was to identify and implement a compliance program such that compliance was achieved by the January 8, 1990 termination date. Aside from the time required to identify the appropriate compliance method, Morris explains:

Compliance with the January 8, 1990 date was not achieved because it took approximately 180 days to have the plans and permit request for the radium removal system to be reviewed and approved by the Illinois Environmental Protection Agency and because the City elected to start construction in the Spring of 1990 rather than the 1989-1990 winter so that construction cost would be less and money would be saved for the taxpayers. (Amend. Pet. ¶16)

Its failure to achieve compliance within the terms of the previous variance notwithstanding, Morris contends that it has demonstrated good faith in attempting to achieve compliance (Amend. Pet. ¶27). As partial evidence thereto, Morris notes that it had expended \$208,658 toward installing the ion exchange system at the time of filing of the Amended Petition, and that it will eventually expend approximately \$600,000 on this compliance effort.

HARDSHIP

Morris contends that denial of variance would constitute an arbitrary or unreasonable hardship. It notes, among other matters, 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. (Amend. Pet. ¶20).

Among projects which Morris foresees as requiring water main extensions are projects designed to serve residential, commercial, and fire protection needs (Amend. Pet. ¶14, 21). The Agency also contends that denial of variance would constitute an arbitrary or unreasonable hardship (Rec. ¶22).

PUBLIC INTEREST

Although Morris 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 (Amend. Pet. ¶23). The Agency contends likewise (Rec. ¶16). In support of their contention the Agency (Rec. ¶15) references 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, to the testimony of Dr. James Stebbings in the same proceeding, and 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 Morris' water is very low (Rec. ¶13). 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 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.

(Amend. Rec. ¶17 and ¶18)

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 Morris. 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.

Morris is to bear in mind that today's action is solely a grant of variance from standards of issuance and restricted status. Morris is not being granted variance from compliance with either the radium or gross alpha particle standard, nor does today's action insulate Morris 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

Petitioner, City of Morris, 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 standards for radium and gross alpha particle activity in drinking water of 35 Ill. Adm. Code.Subtitle F, subject to the following conditions:

- (A) 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 and gross alpha particle activity in drinking water then in effect; or
  - (2) March 1, 1992.

- (B) Compliance shall be achieved with any standards for radium and gross alpha particle activity then in effect no later than the date on which this variance terminates.
- (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 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, radium-228, and gross alpha particle activity. 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  
P.O. Box 19276  
2200 Churchill Road  
Springfield, Illinois 62794-9276

- (D) Construction of all installations, changes or additions necessary to achieve compliance with the standards for combined radium and gross alpha particle activity shall be completed not later than March, 1991.
- (E) 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 and gross alpha particle activity standards.
- (F) 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 and gross alpha particle activity.

The notice shall state the average content of radium and gross alpha particle activity in samples taken since the last notice period during which samples were taken.

- (G) Until full compliance is achieved, Petitioner shall take all reasonable measures with its existing equipment to minimize the level of combined radium, radium-226, radium-228, and gross alpha particle activity its finished drinking water.
- (H) 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 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 90-167  
February 7, 1991.

\_\_\_\_\_  
Petitioner

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



\_\_\_\_\_  
Title

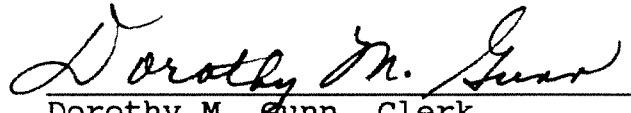
\_\_\_\_\_  
Date

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1989 ch. 111 ½ 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 7<sup>th</sup> day of February, 1991, by a vote of 5-1.



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Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board