

ILLINOIS POLLUTION CONTROL BOARD  
August 5, 1993

CITY OF BYRON, )  
 )  
 Petitioner, )  
 )  
 v. ) PCB 93-110  
 ) (Variance)  
 ILLINOIS ENVIRONMENTAL )  
 PROTECTION AGENCY, )  
 )  
 Respondents. )

BRIAN D. BROOKS APPEARED ON BEHALF OF THE PETITIONER, and STEPHEN C. EWART APPEARED ON BEHALF OF THE RESPONDENT.

OPINION AND ORDER OF THE BOARD (by C. A. Manning):

This matter is before the Board on the June 4, 1993, petition for variance (Pet.) filed by the City of Byron (Byron). The City of Byron seeks relief from 35 Ill. Adm. Code 602.105(a), Standards for Issuance, and from 35 Ill. Adm. Code 602.106(a), Restricted Status, as they relate to 35 Ill. Adm. Code 611.330(a), combined radium-226 and radium-228. Byron seeks the variance for a two (2) year period or when analysis pursuant to 35 Ill. Adm. Code 611.731 shows compliance, whichever comes first. (Pet. at 1.)

The Illinois Environmental Protection Agency (Agency) filed its variance recommendation (Rec.) on July 8, 1993. The Agency recommends that the Board grant the variance subject to certain conditions. Hearing on this matter has been waived, and none has been held.

For the reason discussed below, the Board finds pursuant to Section 35(a) of the Environmental Protection Act (Act) that Byron 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 on the City of Byron. Accordingly, and for the following reasons, the variance is granted subject to the conditions specified in the Board's order.

BACKGROUND

Located in Ogle County, Byron provides public services which include a potable water supply and distribution for a population of 1216 residential and 52 industrial and commercial utility customers. Byron is not part of a regional public water supply. (Pet. at 5.) The public water supply system owned and operated by Byron consists of one (1) deep well, two (2) shallow wells, and pump and distribution facilities. (Pet. at 5.) The Agency

indicates that prior to this petition Byron has not sought a variance from regulations concerning the standard of issuance and the restricted status requirements as they apply to the combined radium limitations of 35 Ill. Adm. Code 611.330.

A recent analysis of petitioner's water distribution system was made on December 4, 1992, when petitioner's water supply showed a combined radium content of 5.9 pCi/L in well nos. 1 and 2. This level exceeded the 5 pCi/L standards. The Agency states that the analysis was of an annual composite of four consecutive quarterly samples or the average of the analyses of four samples obtained at quarterly intervals. Another annual composite will be analyzed in January, 1994.

The Agency's Division of Public Water Supplies originally notified petitioner on February 18, 1993 that the maximum contaminant level (MCL) for combined radium-226 and radium-228 was exceeded. Petitioner was subsequently placed on restricted status for showing combined radium contents that exceeded the standard of 5 pCi/L. Petitioner is not presently on restricted status for exceeding any other contaminant.

Since receiving the Agency's report, petitioner conducted its own analysis of its water in its distribution system. The water analysis was performed on February 25, 1993 and showed that the combined radium-226 and radium-228 for wells 1 and 2 was 4.9 pCi/L which is below the MCL of 5 pCi/L. (Rec. p. 5.)

Located approximately three miles to the southeast of the petitioner is the Byron Salvage Yard. The Agency asserts that the salvage yard is a Superfund site whose former operations have adversely impacted groundwater. Residents who live between the site and the petitioner's public water supply were included in a Superfund Remedial Action to extend the municipal water line to the affected residents. This was included in the remedial action to eliminate the threat of exposure to contaminated groundwater. The petitioner's public water supply is an integral part of the Superfund remedy, and is in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Superfund Amendments and Reauthorization Act ("CERCLA/SARA") (42 U.S.C. § 9601 (1991)). (Rec. p.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

- a) Restricted status shall be defined as the Agency determination, pursuant to Section 39(a) of the Act and Section 602.105, that a public water supply facility may no longer be issued a construction permit without causing a violation of the Act or this Chapter.

These regulations authorize the issuance of construction permits only where the applicant submits proof that the public water supply will be constructed, modified or operated in accordance with the Act. In this situation, a denial of the construction permit would prevent Byron from building and operating new water main extensions necessary for the completion of a Superfund remedial action. (Rec. at 4.) Currently, residents who live between the Superfund site and Byron's public water supply need the extensions to eliminate the threat of exposure to contaminated groundwater which resulted from the contamination at the Superfund site. (Rec. at 4.) The granting of the variance will allow Byron to obtain the construction permits necessary for water main extension to those effected residents. (Pet. at 5.)

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. (415 ICLS 5/35(a)(1992)). 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). The Board may only grant a variance upon such adequate showing.

Additionally, the Board notes that a variance is only temporary relief from the applicable Board rules and regulations (Monsanto Co. v. IPCB (1977), 67 Ill. 2d 276, 367 N.E. 2d 684), and ultimate compliance must be achieved by petitioner regardless of the hardship presented. 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.

The grant of variance from "Standards for Issuance" and "Restricted Status" does not absolve a petitioner from compliance

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

A standard for radium in drinking water was first adopted as a national Interim Primary Drinking Water Regulation (NEPDWR) by the USEPA in 1976. The standard adopted was 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 an "interim" limit, this standard nevertheless is the maximum allowable concentration under both federal and Illinois law, and will remain so unless modified by the USEPA.<sup>1</sup>

Over much of the seventeen years since its original promulgation, the current radium standard has been under review at the federal level. The USEPA first proposed revision of the standard in October 1983 in an Advance Notice of Proposed Rulemaking (48 FR 45502). It later republished this advance notice in September 1986 (51 FR 34836). Most recently, on June 19, 1991, USEPA announced a proposal to modify both standards.<sup>2</sup> USEPA proposes to replace the 5 pCi/L combined radium standard by separate standards of 20 pCi/L each for radium-226 and radium-228.

#### PETITIONER'S COMPLIANCE PLAN

The City of Byron states that there are two (2) alternatives for resolving the compliance problem; (a) construction of a new well which would replace water presently being supplied by existing wells, or construct a treatment facility to properly treat the water supply. (Pet. at 9.) Byron indicates that it intends to construct a new well in order to come into compliance and requests a two (2) year variance to complete the project. (Pet. at 9.)

#### ENVIRONMENTAL IMPACT

The City of Byron states the following concerning the expected environmental impact of the grant of variance:

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<sup>1</sup> In anticipation of USEPA revision of the radium standard, the legislature amended the Illinois Environmental Protection Act at Section 17.6 in 1988 to provide that any new federal radium standards immediately supersede the current Illinois standard. In 1991 Section 17.6 was additionally amended to require that the Board adopt any new radium standards by peremptory rulemaking.

<sup>2</sup> Publication occurred at 56 FR 33050, July 18, 1991.

No formal assessment of the effect of this variance on the environment has been made by Petitioner. However, Petitioner refers the Board and Agency to the testimony and exhibits presented by Dr. Richard E. Toohey, Ph.D. and Dr. James Stebbings, Ph.D. both of the Argonne National Laboratory, on July 30 and August 2, 1985 in R85-14, Proposed Amendments to Public Water Supply Regulations, 35 Ill. Adm. Code 602.105 and 602.106. Updated information regarding the effects of combined radium levels was heard at the Braidwood variance hearing, PCB 89-212. That Testimony and those exhibits are incorporated by reference. It is the opinion of the Petitioner that the granting of this variance for the limited time period of the requested variance will not cause any significant harm to the environment or to the people served by the potential water main extensions that would be allowed if this variance is granted. The Petitioner does not consider the radiological quality of this community water supply to be a significant health risk for the limited time period of the requested variance.

(Pet. at 9,10.)

In addition, Byron states that the USEPA is considering the adoption of significantly higher standards for radium-226 and radium-228. (Pet. at 14) The Board notes that it is the petitioner who carries the burden in assessing the environmental impact in this situation. Although the Board hesitates to allow the extrapolation of the findings in other matters to this it will do so because, together with the Agency's recommendation, the environmental impact is sufficiently addressed.

While the Agency believes that radiation at any level creates some risk, the risk associated with Byron's water supply is very low (Rec. at 7). The Agency states that "an increase in the allowable concentration 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. at 8.) 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 the 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. at 10-11.)

#### HARDSHIP

Both the Agency and Byron state that the denial of the variance in this situation would cause arbitrary or unreasonable hardship to Byron. (Pet. at 12, Rec. at 8.) The Agency states that "...grant of the requested variance would impose no significant injury to the public or to the environment for the limited time period of the requested variance..." (Rec. at 8.) Byron states that the denial of the variance would impact the development of the service area, which negatively impacts Byron's tax base. (Pet. at 15.) Further, both the Agency and Byron state that since the MCL will still be enforceable, the effect of the variance would be limited in that the Agency no longer by law would have to deny construction and operating permits for Byron due to its violation of 35 Ill. Adm. Code 611.330. (Pet. at 13, Rec. at 8,9)

#### CONSISTENCY WITH FEDERAL LAW

Both the Agency and Byron state that the requested variance may be granted consistent with the Safe Drinking Water Act (42 U.S.C. 300(f) (1991)) and corresponding regulations (40 C.F.R. Part 141) because the requested variance does not grant relief from national primary drinking water regulations. (Rec. at 9-10, Pet. at 16) Furthermore, both parties state that since the variance will not be from USEPA's national primary drinking water regulations there is no federal variance and Byron would remain subject to the MCL for the contaminants in question under State or federal law.

#### CONCLUSION

Based on these facts, the Board finds that pursuant to Section 35(a) of the Act there exists adequate proof that immediate compliance with the "Standards for Issuance" and

"Restricted Status" regulations with respect to radium-226 and radium-228 would impose an arbitrary or unreasonable hardship on the City of Byron. The worst analysis of radium level of the City's water, showing a level of 5.9 pCi/L is only slightly over the 5.0 pCi/L standard, while the other analysis at 4.9 pCi/L is slightly below the standard. Water provided to customers pursuant to this variance would replace groundwater contaminated at the Superfund site.

The Board will accordingly grant this variance for a maximum period of two (2) years to allow the petitioner to come into compliance.

The Board notes that timely compliance by Byron may be affected by pending USEPA action to promulgate new standards for radium in drinking water. New radium standards from USEPA could significantly alter Byron's need for a variance. In recognition of this situation, as recommended by the Agency, the variance will contain suitable time frames to account for the effects of any USEPA alternation (or notice of refusal to alter) of the radium standard.

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

#### ORDER

1) The City of Byron is hereby granted a variance from 35 Ill. Adm. Code 602.105(a), "Standards for Issuance", and from 35 Ill. Adm. Code 602.106(b), "Restricted Status", as they apply to 35 Ill. Adm. Code 611.330(a) combined radium-226 and radium-228 MCLs. The variance will be in effect until August 5, 1995, subject to the following conditions:

- (A) Variance shall terminate on the earliest of the following dates:
  - (1) August 5, 1995; or
  - (2) Two years following the date of USEPA action. The date of USEPA action shall consist of the earlier date of the:
    - (A) date the regulation is promulgated by the U.S. Environmental Protection Agency ("USEPA") which amends the maximum contaminant level ("MCL") for combined radium, either of the isotopes of radium, or the method by which compliance with a radium maximum contaminant level is demonstrated; or

- (B) 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.
- (3) When analysis pursuant to 35 Ill. Adm. Code 611.720(d), or any compliance demonstration method then in effect, shows compliance with any standards for radium in drinking water.
- (B) In consultation with the Agency, the 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 expires, the 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 the contaminants in question. The results of the analyses shall be reported to the Compliance Assurance Section, Division of Public Water Supplies, 2200 Churchill Road, Illinois Environmental Protection Agency, Springfield, IL 62794-9276, within 30 days of receipt of each analysis. At the option of the 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 of receipt of the most recent quarterly sample.
- (C) Within three months of USEPA action, petitioner shall apply to the Agency at the address below for all permits necessary for the construction, installation, changes, or additions to petitioner's public water supply needed for achieving compliance with the MCL for combined radium or with any other standard for radium in drinking water then in effect:
- Illinois Environmental Protection Agency  
Public Water Supply Program  
Permit Section  
2200 Churchill Road  
Springfield, IL 62794-9276
- (D) Within six months of USEPA action 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. The petitioner

shall accept appropriate bids within a reasonable time. Petitioner shall notify the Agency, Division of Public Water Supplies, 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.

- (E) 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 MCL in question shall be completed no later than two years following USEPA action. One year will be necessary to prove compliance.
- (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 will send to each user of its public water supply a written notice to the effect that the 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.
- (G) 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 Variance Order, whichever occurs first, and every three months thereafter, the petitioner will send to each user of its public water supply a written notice to the effect that petitioner has been granted by the Illinois 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 it relates to the MCL standard in question.
- (H) Until full compliance is reached, the petitioner shall take all reasonable measures with its existing equipment to minimize the level of contaminants in question in its finished drinking water.
- (I) The petitioner shall provide written progress reports to the Agency's Division of Public Water Supplies, Field Operation Section every six months concerning steps taken to comply with paragraphs C, D, E, F, G, and H. Progress reports shall quote each of said paragraphs and immediately below each paragraph state what steps have been taken to comply with each paragraph.

- (2) That within forty-five (45) days of the grant of the variance, 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, IL 62794-9276

a Certificate of Acceptance and Agreement to be bound to all terms and conditions of the granted variance. The 45 day period will be held in abeyance during any period that this matter is being appealed. Failure to execute or forward this certificate within forty-five (45) days will render the variance null and void. The form of the 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 93-110, August 5, 1993.

\_\_\_\_\_  
 Petitioner

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

\_\_\_\_\_  
 Title

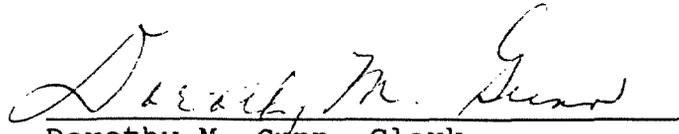
\_\_\_\_\_  
 Date

IT IS SO ORDERED.

B. Forcade dissented.

Section 41 of the Environmental Protection Act (415 ILCS 5/41 (1992)) provides for the appeal of final orders of the Board with 35 days. The Rules of the Supreme Court of Illinois establish filing requirements. (See also 35 Ill. Adm. Code 101.246, Motion for Reconsideration.)

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 5<sup>th</sup> day of August, 1993, by a vote of 5-1.

  
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Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board