

ILLINOIS POLLUTION CONTROL BOARD
January 22, 1987

VILLAGE OF VILLA PARK,)
)
 Petitioner,)
)
 v.) PCB 86-140
)
 ILLINOIS ENVIRONMENTAL)
 PROTECTION AGENCY,)
)
 Respondent.)

OPINION AND ORDER OF THE BOARD (by J. Theodore Meyer):

This matter comes before the Board on the September 11, 1986 petition for variance and the October 24, 1986 amended petition for variance filed by the Village of Villa Park. Villa Park seeks variance from 35 Ill. Adm. Code 602.105(a), Standards for Issuance, and from 35 Ill. Adm. Code 602.106(b), Restricted Status, but only to the extent those rules involve combined radium-226 and 228. This variance is requested for a period of five years or until compliance is achieved, whichever is sooner. The Illinois Environmental Protection Agency (Agency) filed its recommendation that variance be granted on December 3, 1986. Hearing was waived and none was held.

On December 22, 1986 Villa Park filed motions for decision on the pleadings and for expedited decision citing the delay of an important construction project due to the Village being placed on the Agency's Restricted Status list. Those motions are hereby granted.

The Village of Villa Park is located in DuPage County, Illinois. The Village provides public services including potable water supply and distribution for 6,200 residential and 480 commercial customers. The population equivalent served by the well and distribution system is approximately 23,000. The system includes five (5) deep wells, two (2) shallow wells, pumps and distribution facilities.

35 Ill. Adm. Code 604.301(a) provides for a maximum allowable concentration of combined radium-226 and 228 in community water supplies of 5 pCi/l. By letter dated August 23, 1985, the Village was first informed that the maximum allowable concentration of combined radium was being exceeded. The Agency report indicated a combined radium content of 8.0 pCi/l.

The Village intends to correct this problem by utilizing its

Lake Michigan allocation to replace water presently supplied by the wells. In 1980, the Village joined the DuPage Water Commission whose purpose is to implement the delivery of Lake Michigan water to its approximately 27 member communities. Members of the Commission are investing more than \$350 million in a water transmission system to deliver the lake water to some 750,000 people in DuPage County via the City of Chicago. While the primary purpose in entering into this long range program was to assure an adequate water supply into the next century, delivery of lake water will also eliminate the problem caused by the presence of radium in the natural rock formations in the deep underground aquifer. The DuPage Water Commission is expected to deliver Lake Michigan water beginning in approximately 1992.

In the interim, treatment options such as lime or lime-soda softening would require significant expenditures of time and money and become obsolete when Lake Michigan water is obtained. In addition, lime softening, though effective, produces large quantities of sludge and concentrates the radium which causes additional problems and expenses associated with proper disposal. Likewise, ion exchange softening concentrates radioactivity in the wastestream. Also, some of the radioactivity remains in the ion exchange material posing a possible hazard to maintenance workers. In addition, ion exchange softening will raise the sodium content of the water if the softener is regenerated with salt. This may cause significant risk to persons who are hypertensive or who have heart problems.

The Agency states that while radiation at any level creates some risk, the risk associated with this level is very low. The Agency believes that an incremental increase in the allowable concentration for combined radium even up to a maximum of four times the current standard, should cause no significant health risk for the time period of this recommended variance.

Villa Park urges that since there is no significant risk of environmental harm or risk to the public health for the limited time period of the variance, continuation of the effect of being on Restricted Status would be arbitrary or unreasonable hardship to the Village and its taxpayers and to prospective developers and persons and industries served by those developers. The Village states that presently water main extensions are needed to serve the Fireside Trail Subdivision; a 24-lot subdivision for single family homes.

The Agency believes that the Board may grant the recommended relief consistent with the Safe Drinking Water Act since the variance is from the effect of Restricted Status to allow water main extensions and is not a variance from the national primary drinking water regulations. The Village is still subject to the possibility of enforcement for violations of the maximum

allowable concentration for combined radium.

The Board finds that the hardship resulting from denial of the variance from the effects of being on Restricted Status outweigh the minimal risk from grant of the variance. In light of the cost to Villa Park for treatment of its current water supply, the unlikelihood of injury to the public from continuation of the present level of the contaminant in question and the likelihood of compliance upon delivery of Lake Michigan water, the Board concludes that denial of variance from the effects of restricted status would impose an arbitrary or unreasonable hardship upon the Village of Villa Park. The Board notes that Villa Park has requested a variance level of 15 pCi/l; however, no substantiation for this level is provided. Since present levels are 8 pCi/l, the Board will grant variance to 10 pCi/l as adequate to assure relief from Restricted Status.

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

ORDER

The Village of Villa Park is hereby granted a variance from 35 Ill. Adm. Code 602.105(a), Standards of Issuance, and 602.106(b), Restricted Status, but only as they relate to combined radium-226 and radium 228, subject to the following conditions:

1. That this variance expires when five years has passed from grant of this variance, or when compliance is achieved, whichever occurs first.
2. That Petitioner continue in efforts to obtain Lake Michigan water.
3. That Petitioner report to the Agency one year prior to the expiration of this variance as to the status of obtaining Lake Michigan water before this variance expires. If it reasonably appears that Petitioner will not obtain Lake Michigan water prior to said expiration, Petitioner shall apply to IEPA for all necessary permits for the construction of treatment facilities at least six months prior to said expiration and install said facilities and have them operational prior to said expiration.
4. In consultation with the 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 expires, Petitioner shall collect quarterly samples of its water from its distribution system, shall composite 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 contaminant in question. The results of the analyses shall be reported to the Water Quality Unit, Division of Public Water Supplies, 2200 Churchill Road, IEPA, Springfield, Illinois 62706, within 30 days of receipt of each analysis. 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 of receipt of the most recent quarterly sample.

5. Compliance shall be achieved with the maximum allowable concentration in question no later than five years from grant of this variance.
6. 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 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(b), Restricted Status, as it relates to the MAC standard in question.
7. 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 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 contaminant in question in samples taken since the last notice period during which samples were taken.
8. That Petitioner shall take all reasonable measures with its existing equipment to minimize the level of contaminant in question in its finished water. In no event shall combined radium levels exceed 10 pCi/l.
9. The Petitioner shall provide written progress reports and relevant documentation to IEPA, every six months concerning steps taken to comply with paragraphs 2 and 8. This information shall be sent to the Division of Public Water Supplies at the address in paragraph 4 above. Progress reports shall quote each of said paragraphs and immediately below each paragraph state

what steps have been taken to comply with each paragraph.

- 10. That within forty-five days of the date of this Order, Petitioner shall execute and forward to Wayne L. Wiemerslage, Enforcement Programs, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706, a Certificate of Acceptance and Agreement to be bound to all terms and conditions of this variance. This forty-five day period shall be held in abeyance for any period this matter is being appealed. The form of the Certification shall be as follows:

CERTIFICATION

I, (We), _____, hereby accept and agree to be bound by all terms and conditions of the Pollution Control Board in PCB 86-140, January 22, 1987.

Petitioner

BY _____
Authorized Agent

Title

Date

IT IS SO ORDERED.

Board Members J. Dumelle and B. 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 22nd day of January, 1987, by a vote of 4-2.

Dorothy M. Gunn
Dorothy M. Gunn, Clerk
Illinois Pollution Control Board