

ILLINOIS POLLUTION CONTROL BOARD
September 11, 1986

VILLAGE OF ROUND LAKE BEACH)
)
 Petitioner,)
)
 v.) PCB 86-59
)
 ILLINOIS ENVIRONMENTAL)
 PROTECTION AGENCY,)
)
 Respondent.)
)
 and)
)
 ELIZABETH BOWDEN, BARBARA ELLENWOOD,)
 MICHAEL KARASINSKI, JEAN KENNEDY,)
 CHRISTINE MEEK, STEWART SLAVIK,)
 CITIZENS FOR A BETTER ENVIRONMENT, AND)
 THE LAKE COUNTY DEFENDERS)
)
 Intervenors.)

JOHN MULLEN APPEARED ON BEHALF OF THE PETITIONER.

WAYNE WIEMERSLAGE APPEARED ON BEHALF OF THE RESPONDENT.

ELIZABETH BOWDEN, BARBARA ELLENWOOD, MICHAEL KARASINSKI, JEAN KENNEDY, CHRISTINE MEEK, JED POSNICK, STEWART SLAVIK, APPEARED ON BEHALF OF THEMSELVES. JED POSNICK APPEARED ON BEHALF OF CITIZENS FOR A BETTER ENVIRONMENT. LORENS TRONET APPEARED ON BEHALF OF THE LAKE COUNTY DEFENDERS.

OPINION AND ORDER OF THE BOARD (by R. C. Flemal):

This matter comes before the Board upon a Petition for Variance filed by the Village of Round Lake Beach ("Village") on April 22, 1986. The Village requests a variance from 35 Ill. Adm. Code 602.105(a) (Standards for Issuance) and 602.106(b) (Restricted Status) as they relate to 604.301(a) (Combined radium 226 and 228) for five years or until May 1, 1991. The Village is not seeking a variance from the actual combined radium standard, but rather, from restricted status.

On April 24, 1986, the Board determined the Village's Petition to be deficient in that it failed "to identify the public water supply customers or facilities for which hook-up and permits are sought". To remedy this problem the Village submitted an Amended Petition ("Amen. Pet.") May 19, 1986. The Agency filed its Recommendation ("Rec.") in this matter on June

27, 1986, recommending that the variance requested by the Village be granted, subject to conditions.

Hearing was held on July 11, 1986, in Round Lake Beach, Illinois. The hearing was well attended by interested persons, as the Hearing Officer estimated that approximately 200 persons were present (R. at 11). The Village's Petition has engendered a considerable amount of interest and/or controversy amongst the public; the Board has received many written comments from persons and organizations interested in this case, and all have been opposed to granting the requested variance relief.

On August 20, 1986, the Village waived its right to a decision in this matter until September 25, 1986.

As discussed more fully below, the Board finds the Village would suffer arbitrary or unreasonable hardship if denied variance relief in this instance, but does not find that variance for a five-year period is required. Therefore, the Board will partially grant the Village the variance relief it seeks, subject to conditions.

RELIEF SOUGHT BY THE VILLAGE

The Village requests variance until May 2, 1991, or for five years from 35 Ill. Adm. Code 602.105(a) (Standards for Issuance) and from 35 Ill. Adm. Code 602.106(b) (Restricted Status) but only as they relate to 35 Ill. Adm. Code 604.301(a)¹. Section 602.105(a) states in full:

- 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. 1981, ch. 111^{1/2}, pars. 1001 et. seq.)(Act), or of this chapter.

Sections 602.106(a) and (b) state in full:

- 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

¹The Village's Petition actually cites to 604.301(b), but that reference is obviously made in error because 604.301(b) relates to gross alpha particle activity.

construction permit without causing a violation of the Act or this Chapter.

- 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 asserted purpose of the requested variance is to allow the continued operation of the Village's water supply and distribution system, the expansion or extension of said system, and the removal of this facility from the Agency's Restricted Status List (Amen. Pet., p. 1).

The Board notes that the Village's ability to continue operation of its existing water supply and distribution system would not be affected by either a grant or denial of the requested relief. However, the decision on relief could affect the likelihood of those future developments which would require extension of the Village's water service.

BACKGROUND

The Village provides public services, including potable water supply and distribution, for a population of 3,886 residential and 182 industrial and commercial utility customers representing approximately 15,000 residents and 1,000 employees (Amen. Pet., par. 10). The Village owns and operates its water supply and distribution system, which consists of four shallow wells (Nos. 1, 3, 4, and 5), two deep wells (Nos. 6 and 7), a 500,000 gallon elevated storage tank, and a one million gallon ground storage reservoir (Amen. Pet., pars. 12-13; Exhibit² ("Ex") 4, p.1). In 1985, the system delivered 475 million gallons and experienced a peak daily demand of 1.7 million gallons/day (Ex. 4, p.1).

²In addition to the Exhibits submitted for the Record by the Village, the Agency and several citizens who obtained Intervenor status in this case pursuant to 35 Ill. Adm. Code 103.142 also submitted Exhibits. Exhibits filed by the Agency will be referred to as Agency Exhibits ("Agen. Ex."). The citizens granted intervenor status pursuant to 35 Ill. Adm. Code 103.142 were Elizabeth Bowden, Barbara Ellenwood, Michael Karasinski, Jean Kennedy, Christine Meek, and Stewart Slavik. Citizens for a Better Environment and the Lake County Defenders were also granted intervenor status. Exhibits filed by Intervenor status. Exhibits filed by Intervenor status will be referred to as Public Exhibits ("Pub. Ex.").

The depths and ages of the wells operated by the Village are as follows:

<u>WELL</u>	<u>DEPTH</u>	<u>YEAR PLACED INTO SERVICE</u>
1	215	1946
3	342	1948
4	314	1952
5	295	1956
6	1,287	1972
7	2,000	1978

The Village was notified by letter from the Agency on December 9, 1985, that its system was delivering water exceeding the 5 pCi/l combined radium 226 and 228 standard. The Agency's letter was prompted by its determination that the water delivered by the Village contained 10.5 pCi/l of combined radium (Ex. 1). In response to this notification from the Agency, the Village undertook efforts to independently sample water from wells 6 and 7³, as well as water from one location in the Village's distribution system, for combined radium. The results obtained (expressed in pCi/l) are as follows:

<u>WELL</u>	<u>RADIUM 226</u>	<u>RADIUM 228</u>
6	3.5 ± 0.1	4.1 ± 1.0
7	4.2 ± 0.1	4.7 ± 1.0
1502 Elm Av.	0.9 ± 0.1	1.6 ± 0.7

(Ex. 3).

COMPLIANCE ALTERNATIVES

The Village believes that the most feasible manner for it to achieve compliance with the combined radium standard is to blend water drawn from shallow wells with water from deep wells (R. at 150). The former, having comparatively low levels of radium, would offset the naturally occurring higher levels of radium in the latter and thereby allow the system to deliver water containing less than 5 pCi/l of radium 226 and 228.

³Ostensibly the Village's four shallow wells were not sampled for the presence of combined radium because such material is found only in water drawn from deep wells in certain portions of Illinois.

Blending as a Short-Term Solution

The configuration of the Village's system is fortuitously amendable to immediate utilization of blending as a partial means of attaining compliance. Well No. 6 currently pumps directly into the one million gallon ground storage reservoir, and the reservoir can also receive water from the distribution system (Ex. 4). The Village proposes to begin blending within one to two months after variance is granted. Blending would occur in the reservoir and utilize water from Well No. 6 and the distribution system, at a ratio of approximately 1:1 (Id.). The Village calculates that this procedure will reduce the combined radium level in the blended water to about 5 pCi/l (Id.).

However, the Village contends that prior to completion of the long-term improvements to the system (see discussion below), its shallow wells in conjunction with Well No. 6 cannot consistently supply enough water to meet the needs of the system's users (R. at 152). This deficiency would likely present itself in warm weather and/or during periods when water is being drawn for fire protection purposes (Id.). The Village suggests that at those times unblended water from the deep wells would be utilized out of necessity, and would push the combined radium level in the system's delivered water above the 5 pCi/l standard (Id.). The Village therefore requests variance for a five year period or until May 1, 1991, to do additional work which will allow for the use of a blending system which will provide water meeting the 5 pCi/l combined radium standard in sufficient quantity to meet the demands placed on the system (Id.).

Blending as a Long-Term Solution

During the period of the requested variance, the Village proposes to construct additional shallow wells which will provide water with low combined radium levels. In addition, the Village plans on installing piping and control equipment that will enable water from Well No. 7 to be blended in the system's elevated tank prior to entering the distribution system (Ex. 4).

Well No. 7 is located approximately 500 feet from the 500,000 gallon elevated storage tank. To accomplish the blending of Well No. 7 water with water of low combined radium, additional watermains connecting the well and the elevated tank need to be constructed. The costs of these proposed improvements is estimated by the Village to be approximately \$150,000 (Ex. 4).

Lime Softening

According to the Agency, this method can remove 80 to 90 percent of the combined radium in the water (Rec., par. 17). However, it also produces large quantities of sludge containing the combined radium in a concentrated form, which causes

additional problems and expenses in properly disposing of the material (Id.).

Ion Exchange Water Softening

The Agency states that this method is cheaper than lime softening, and will remove more than 90 percent of the combined radium from the water (Rec., par. 18). Though possibly less expensive than the lime softening method the Village estimates that utilizing this approach would cost approximately \$1 million per well (R. at 148). However, the Agency adds that if an ion exchange softener which is regenerated with salt is used, the sodium content of the water will be increased significantly (Id.). This may create a significant risk to persons who are hypertensive or who have heart problems (Id.). The Agency further adds that the ion exchange process will concentrate the radioactivity and release the majority of the radioactivity in the waste stream in a concentrated form. This concentration causes difficulties in disposing of the waste material, and may result in a hazard to anyone subsequently working on the softener equipment (Id.). The Agency is actively discouraging use of the ion exchange process for removal of combined radium, "...unless that is the best treatment method available for a particular supply" (Id.).

Lake Michigan Water

Another compliance alternative is to obtain Lake Michigan water for the Village's system. The Village has applied for, and received an allocation of, Lake Michigan water (R. at 149). However, up to this time the Village has not devised what it considers to be a feasible way of transporting the water from Lake Michigan to its system (R. at 149-150).

HEALTH RISK

The Agency states that although radiation at any level creates some risk, the risk associated with the level present in the Village's water is very low (Rec., par. 14). The Village presented testimony at hearing from Richard E. Toohey, Ph.D, a biophysicist and research scientist at Argonne National Laboratory. Dr. Toohey has studied the human health effects of radium for the past 13 years, all of which time he has been employed by Argonne (R. at 33).

Dr. Toohey has presented his testimony regarding the health effects of radium, in virtually identical fashion, at hearings in several Board proceedings (see the records of PCB 85-51, City of Aurora v. Illinois Environmental Protection Agency, July 11, 1985, and R85-14, Proposed Amendments to Public Water Supply Regulations, 35 Ill. Adm. Code 602.105 and 602.106). His

testimony essentially indicates, and is cited by the Village and the Agency for the proposition that:

an incremental increase in the allowable concentration for combined radium, even up to a maximum of 20 pCi/l, should cause no significant health risk for the limited population served by new water main extensions for the time period of this recommended variance (emphasis as in original) (Rec., par. 16).

Since the substance of Dr. Toohey's presentation has previously been recounted in detail by the Board (see Aurora, pps. 5-7), it will not be repeated here.

Seven of the eight persons who were formally granted intervenor status by the Hearing Officer participated in the hearing and, inter alia, questioned Dr. Toohey on his conclusions regarding the health effects of radium ingestion⁴. The questions posed by the intervenors generally focused on the following areas:

- whether Dr. Toohey's opinion is accepted by other government agencies (R. at 62-68);
- whether certain of the assumptions made by Dr. Toohey in his calculations are accurate (R. at 73-82);
- whether a causal relationship exists between ingestion of radium and various adverse health effects, other than those identified by Dr. Toohey (R. at 74-76; 92-94; 99-100; 103-104).

The intervenors did not present any witnesses of their own, expert or otherwise, to counter Dr. Toohey's testimony⁵. Several persons commented, however, that in their opinion any health risk associated with the presence of radium in drinking water is excessive and that the requested variance should not be granted (R. at 101; 119-121; 267-268). The intervenors also submitted petitions signed by more than 600 persons in opposition to the variance. The petitions state that those signing oppose the

⁴The only intervenor who did not attend the hearing was Barbara Ellenwood.

⁵The intervenors did present one witness, F.T. Mike Graham, who is the Libertyville Township Supervisor. By his own admission, however, Mr. Graham was asked by the intervenors to address the "cost of growth" (i.e. cost of public development; see R. at 252-253).

granting of variance relief here because "the users of said water supply (will) be exposed to health hazards, known and unknown..."

HARDSHIP

The Village and the Agency both contend that the hardship resulting from denial of the requested variance would outweigh the injury to the public from granting the petition (Amen. Pet., par. 40; Rec., par. 27), and that denial of the variance would impose on arbitrary or unreasonable hardship on the Village (Amen. Pet., par. 32; Rec., par. 27).

The Village asserts that it does not have adequate funds at the present time to implement the full blending plan (R. at 205). The Village states that funds were not allocated for this purpose in the Village's 1986 budget, and that because of deficits in the Village's sewer and water fund revenue bonds cannot be obtained to finance the necessary work (R. at 205-206).

The Village initially indicated at hearing that it sought the requested variance relief in order to bring its system into compliance, to upgrade the system to better serve existing customers, and to serve new customers by extending water connections to new development (R. at 227). In response to questioning by one of the intervenors, however, Wayne Wiemerslage, an Attorney with the Agency, noted that a variance from Restricted Status would only be necessary for the purpose of connecting new users to the system (i.e. to accommodate new development) (R. at 228-229). The Village insists that fees charged to new users added to the system as a consequence of development will comprise a significant source of revenue,, and will assist the Village in implementing the blending plan (R. at 209).

The Village has indicated that without variance relief, three pending developments within its boundaries already in the construction or planning stages will not be allowed to obtain water service. These developments are the Countryside Hills subdivision (consisting of 258 single family attached homes; at least 32 units have already been sold, and the buyers had intended to take possession in June, 1986), the Eagle Creek development (consisting of 300 single family attached and detached homes to be built over the next five years), and a proposed 20-store shopping center (Ex. 1(A)).

THE DEVELOPMENT ISSUE

It is apparent from a reading of the transcription of the hearing held in this matter that at least a portion of the opposition generated against the Village's petition for variance

is rooted in philosophical differences between the Village's Administration and some of its citizenry over the question of development (see, e.g., R. at 223-224 and 253-254)⁶. The Village's Administration is apparently interested in having the Village annex additional property for residential and commercial development, while some persons who exhibited an interest in this case objected to the granting of variance relief in whole or in part because of their opposition to further development of the Village.

The concern exhibited at hearing over development of the Village is exemplified by the following discussion between Michael Karasinski (one of the intervenors), John Mullen (attorney for the Village), and the Hearing Officer, as Mr. Karasinski attempts to introduce as an exhibit a number of signed petitions purporting to show opposition to the granting of variance relief in this case:

Mr. Karasinski: Yes, I would like to have it entered as an exhibit from the people of Round Lake Beach, petitions that they do not want this variance granted. They want it cleaned up first before any further development is put in.

Mr. Mullen: And I would like to object for the record. I don't think those documents are admissible.

Hearing Officer Wulf: I will admit them.

* * *

Before you go on, I am going to rescind something that I said earlier.

As related to Mr. -- I am going to rescind something that I said earlier that related to Mr. Karasinski's petition that he indicated.

He indicated these were people that were opposed to the variance. These petitions don't address that issue, but an annexation issue, which is not the matter at hand.

⁶In so noting, the Board at the same time realizes that many of the comments received in opposition to the variance have been given as the result of sincere concern over the health effects of ingesting combined radium 226 and 228. Such comments are appropriate, and the Board welcomes them.

These are more appropriately submitted to your Village officials. So I will not admit these into the record. (R. at 224-225, 238).

The Board feels compelled to observe that determining the relative merits of "growth" as a policy or philosophy is not its function. Rather, the Board is empowered to grant variance relief if, in its discretion, arbitrary or unreasonable hardship would result from requiring an entity to comply with a Board regulation, requirement, or order. In making this determination, the Board determines whether the alleged hardship outweighs the environmental impact that may occur as a result of the variance. The raising of other issues, such as whether annexation on the part of the Village is prudent from a cost perspective (R. at 253-256) is not appropriate in a variance case and cannot be entertained by the Board.

CONCLUSION

The Village's request is basically that it be allowed to expose an additional unidentified number of persons to its excess combined radium levels by extending water service to them, and that such additional exposure be for a period ending not later than five years from now. This is essentially what variance from Restricted Status would allow because it would enable the Agency to grant permits to the Village for new water main extensions. Moreover, this is all that the requested variance relief entails; neither the Village's ability to continue operation of its water supply and distribution system, nor the issue of requiring the Village to take actions to lower the level of combined radium found in water delivered to existing users, are subjects of this case.

As previously noted, the Agency believes that exposure over a five year period to the level of combined radium found in the Village's water would cause no significant health risk for the limited population served by new water main extensions. The Board finds that granting the requested variance would produce no significant health risk.

Regarding the question of hardship, the Board finds that the Village will suffer, for various reasons, hardship if denied some form of variance relief. The Village has indicated that it will charge the builders of new developments "tap-on" fees for the privilege of being added to the system. The Village has also noted that it needs the funds that will be generated by these fees in order to pay for the improvements which will bring the system into compliance.

Furthermore, the Village has shown that the funding for the improvements to its system can, and will, come from the fees

charged to the new users who will be added to the system. The Village has also shown its intention to bring its system into compliance by virtue of its planning efforts to date. The Village has already completed the stages of identification of alternative solutions to the combined radium problem, the evaluation of those alternatives, and the selection of one of them as a compliance option, and shows every intention of fully implementing the blending plan it has selected.

Finally, the Board finds hardship would additionally result from failure to lift Restricted Status here because of the impact such a determination would have on the pending developments in the Village. In reaching this conclusion, the Board does not in any way comment on the desirability, or lack thereof, of the construction of these developments in the first instance. The Board simply believes that because progress on these developments was initiated prior to the time the Village was aware its system would be placed on Restricted Status (R. at 222), hardship would result from a denial of variance relief. This concern is particularly applicable to the Countryside Hills development, at which construction was begun prior to the time the Village was aware of its Restricted Status situation, and at which many units have already been sold⁷.

On balance, therefore, the Board finds that given the minimal environmental impact of the requested variance and the hardship that would result without it, a denial of variance relief in this instance would result in arbitrary and unreasonable hardship. The Board adds that in granting variance relief here, its intention is to ensure that all users of the Village's system begin receiving, as expeditiously as possible, water complying with the 5 pCi/l combined radium standard. The Board is persuaded that variance relief will allow the Village to obtain the financing necessary to attain compliance within a shorter time period than would otherwise be possible.

⁷Jeanne A. Kennedy, one of the intervenors in this matter, claims that Countryside Hills has recently installed two private wells and has "an adequate, temporary water supply" (Comment of Jeanne A. Kennedy, July 24, 1986). However, Peter G. Kanelos, developer of the project, earlier noted that the inability of his company to obtain permits for the extension of water mains to his project and the resulting legal consequences of that situation could bring about "...financial ruin and abandonment" of the project (Ex. 7). It is not clear from the record whether Mr. Kanelos has obtained a sufficient water supply to meet Countryside Hills' short-term needs. Whether that has occurred or not, the Board nonetheless believes that unless the development can be connected with the Village's system, arbitrary or unreasonable hardship will result in the long-run.

However, given the relative ease with which the Village can begin blending water from Well No. 6, as well as the limited amount of work that needs to be accomplished before water from Well No. 7 can be blended, the Board believes that a variance period of five years is unnecessarily long. The Village has already determined to undertake blending as the means of compliance (R. at 150); in addition, the Village's engineer has already specifically identified the construction work needing to be done to implement the blending program (see Ex. 4). Little or no time needs to be allowed the Village for the securing of professional assistance, the investigation of compliance options, etc., as this work has already been completed.

Consequently, the Board finds that a three-year variance period is adequate to allow the Village sufficient time to complete the required construction to its system and bring the blending plan into full operation. The largely identical variance conditions proposed by the Agency and the Village, which had been written with a five-year variance in mind, will therefore be modified to reflect the Board's position.

One major distinction in the variance conditions suggested by the Agency and the Village and those imposed by the Board has to do with the upper limit on the level of combined radium that must be observed in the system during the variance period. The Agency recommends this level be set at 15 pCi/l (Rec., par. 28(B)) while the Village suggests no particular figure but offers to "take all reasonable measures with its existing equipment to minimize the combined radium 226 and 228 activity in its finished water (Amen. Pet., par. 31(L)).

The Board believes it is appropriate to impose an upper limit in this case, as the Village has asserted that it will have the ability to control the level of combined radium in its system. The Board furthermore determines that the cap will be set at 6 pCi/l for all times except during those of an "emergency" (for definition, see Order) nature.

The 6 pCi/l figure was arrived at in consideration of statements made by the Village regarding its capabilities and intentions. The Village has indicated that within a two month period it could begin blending water from Well No. 6 (R. at 172; Ex. 4), and that this action would allow the blended water to attain a combined radium concentration of "about" 5.0 pCi/l (Ex. 4). Since the Village has indicated some degree of uncertainty in its ability to attain a level of below 5.0 pCi/l, the Board will set the cap at 6.0 pCi/l in order to provide a rigorous yet reasonable standard for the Village to meet.

The Village has further proposed that the use of Well No. 7 be limited to "emergency" operation only (Ex. 4), i.e. during those periods when the other wells cannot meet the system

demand. The Board finds it appropriate to so limit the use of Well No. 7, and will impose the limitation as a variance condition. The Board realizes that during those periods of an "emergency" nature, the 6.0 pCi/l limit may not be met.

Finally, the Board notes that the variance requested here is solely from Illinois regulations establishing the Restricted Status mechanism and not from the national primary drinking water regulations. That being the case, such variance will not insulate the Village from the possibility of enforcement from violations of the underlying combined radium standard.

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

ORDER

The Village of Round Lake Beach is hereby granted variance from 35 Ill. Adm. Code 602.105(a) (Standards for Issuance) and 602.106(b) (Restricted Status) but only as they relate to 604.301(a) (Combined radium 226 and 228), subject to the following conditions:

1. Variance shall be effective this date and shall expire on September 11, 1989, or when analysis pursuant to 35 Ill. Adm. Code 605.105(a) shows compliance with the combined radium 226 and 228 standard, whichever occurs first.
2. By November 11, 1986, the Village shall begin blending in its ground storage reservoir water from Well No. 6 with water from its distribution system in such ratio as to prevent the level of combined radium 226 and 228 in that blended water from exceeding 5.0 pCi/l. This blending shall be continued for the duration of the variance.
3. Well No. 7 shall not be used except for emergency operation. Such operation shall be said to be required during those periods when water from the Village's shallow wells and Well No. 6 (after blending) cannot meet the demands on the Village's system.
4. The concentration of combined radium 226 and 228 in Petitioner's distribution system shall not exceed 15 pCi/l for the initial two months of the variance period. After November 11, 1986, such level shall not exceed 6.0 pCi/l, except during those periods when Well No. 7 is used in emergency operation, during which time such level shall not exceed 15 pCi/l.

5. 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 combined radium 226 and 228. 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.
6. Compliance shall be achieved with the combined radium 226 and 228 standard by September 11, 1989.
7. Within six months of the grant of the variance, the Petitioner shall complete investigating compliance methods, including those treatment techniques described in the Manual of Treatment Techniques for Meeting the Interim Primary Drinking Water Regulations, USEPA, May 1977, EPA-600/8-77-005, and prepare a detailed Compliance Report showing how compliance shall be achieved with the shortest practicable time, but no later than three years from the date of this variance.
8. This Compliance Report shall be submitted within seven months of the grant of this variance to IEPA, DPWS, for its approval.
9. Within three months after submission of the Compliance Report Petitioner shall apply to IEPA, DPWS, Permit Section, for all permits necessary for construction of installations, changes or additions to the Petitioner's public water supply needed for achieving compliance with the combined radium 226 and 228 standard.
10. Within three months after each construction permit is issued by IEPA, DPWS, Petitioner shall advertise for bids from contractors to do the necessary work described in the construction permit and shall accept appropriate bids within a reasonable time.
11. 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 combined radium 226 and 228 standard shall begin no later than one and one half years from the grant of this variance and shall be completed no later than three years from the grant of this variance.

12. Pursuant to 35 Ill. Adm. Code 606.201, 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, 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 related to the combined radium 226 and 228 standard.
13. 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 is not in compliance with the combined radium 226 and 228 standard. The notice shall state the average content of combined radium 226 and 228 in samples taken since the last notice period during which samples were taken.
14. That Petitioner shall take all reasonable measures with its existing equipment to minimize the level of combined radium 226 and 228 in its finished water.
15. That within forty-five days of the date of this Order, Petitioner shall execute and forward to Wayne 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

The Village of Round Lake Beach, having read the Order of the Illinois Pollution Control Board in PCB 86-59 dated September 11, 1986, understands and accepts the said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

Village of Round Lake Beach

By: Authorized Agent

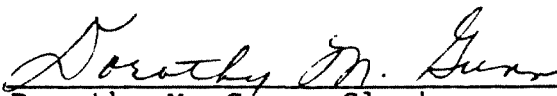
Title

Date

IT IS SO ORDERED.

Board Members Jacob D. Dumelle and Bill Forcade dissented.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Order was adopted on the 11th day of September, 1986, by a vote of 4-2.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board