ILLINOIS POLLUTION CONTROL BOARD
September 28, 1989

IN THE MATTER OF:	)	
	)	
AMENDMENTS TO 35 ILL. ADM. CODE 604.203 AND 605.104 OF SUBTITLE F: PUBLIC WATER SUPPLIES (Trihalomethanes)	)	R84-12

PROPOSED RULE SECOND NOTICE

OPINION AND ORDER OF THE BOARD (by J.D. Dumelle):

On December 15, 1988, the Board proposed for First Notice amendments to 35 Ill. Adm. Code Subtitle F which would expand the 0.10 milligrams per liter (mg/l) standard for total Trihalomethanes (TTHM) in finished drinking water currently regulating public water supplies serving over 10,000 individuals to public water supplies serving fewer than 10,000 individuals. The proposed amendments were published in the Illinois Register on January 13, 1989 at 13 Ill. Reg. 255, 262, and 269. On February 24, 1989 (13 Ill. Reg. 2539) a Notice of Correction was published because two of the existing subsections (now being relabeled as subsections (e) and (f)) were inadvertently omitted from the First Notice publication. The Notice of Correction merely corrected that oversight and adds no new substance to the proposed amendments. The 45-day public comment period expired on March 1, 1989; five public comments were submitted. Today the Board adopts the proposed amendments for Second Notice.

The five public comments were submitted as follows: Public Comment number ("P.C.") 4, from the Northern Illinois Water Corporation, P.C. 5 from the Administrative Code Division of the Office of the Secretary of State, P.C. 6 from the Illinois Environmental Protection Agency ("Agency"), P.C. 7 from WSCO Development, Inc., and P.C. 8 from Hickory Highlands Water Company.

The Northern Illinois Water Corporation stated only that the proposed amendments will cause no problem because it is already performing the required tests. WSCO Development stated that it is a "small family owned and operated water company supplying approximately 200 customers." Hickory Highlands Water Company stated that it is a "small family owned and operated water company supplying water to approximately 86 customers. The water is purchased from the City of Bloomington." Apparently, these commenters are affected by the proposed regulations and are

responding to the Board's First Notice request for comment. The Board appreciates their comments.

All of the comments set forth in P.C. 5 from the Administrative Code Division have been incorporated into this Second Notice Order.

The majority of the substantive comments were submitted in P.C. 6 by the Agency. The Agency's first comment is that it cannot provide the laboratory analyses to implement proposed Section 605.104(b). At First Notice Section 605.104(b) stated that a public water supply shall submit at least one initial sample per treatment plant to the Agency for analysis, and then submit either one sample annually or one sample quarterly thereafter depending on the results. The Agency argues that it cannot provide any sampling analysis whatsoever to implement proposed Section 605.104(b) because it does not have available funds for such laboratory analyses in its current budget. Thus, the Agency suggests changing the requirement to reflect that the sample shall be collected by the water supply, analyzed by a certified laboratory, and then reported to the Agency, thereby transferring the costs to the water supplies.

The Board is sympathetic but not altogether persuaded by this position. Although the Board appreciates the Agency's concerns, the Board does not believe that it is, or ought to be, precluded from adopting a necessary regulation for the sole reason that the Agency possesses scarce resources with which to implement the regulation. The Board notes that Section 14 of the Act states:

> The General Assembly finds that state supervision of public water supplies is necessary in order to protect the public from disease and to assure an adequate supply of pure water for all beneficial purposes. It is the purpose of this Title to assure adequate protection of public water supplies.

To that end, Section 17 of the Act states:

> The Board may adopt regulations governing the location, design, construction, and continuous operation and maintenance of public water supplies installations, changes or additions which may affect the continuous sanitary quality, mineral quality, or adequacy of the public water supply, pursuant to Title VII of the Act.

Section 27 of Title VII states that in promulgating regulations the Board shall take into account:

> the existing physical conditions, the character of the area involved, including the character of surrounding land uses, zoning classifications, the nature of the existing air quality, or receiving body of water, as the case may be, and the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution.

Clearly Section 14 of the Act articulates a policy of protecting the public from disease and contaminants in its public water supplies. Since 1982, Board regulations have established a maximum allowable concentration for TTHMs in the finished drinking water of public water supplies serving over 10,000 individuals. The Board believes that individual consumers of public water supplies serving fewer than 10,000 are equally entitled to the same protection. Thus, the Board believes that the scope of the existing rules must be extended to cover supplies serving fewer than 10,000 individuals. That this will increase the workload of the Agency as a result is true; most Board rulemakings do.

However, the Board is sympathetic to the Agency's concerns. Consistent with the Board's statutory responsibility to adopt economically reasonable regulations which assure adequate protection of public water supplies the Board has revised the language of Section 605.104(b). The Board has rewritten Section 605.104(b) to parallel the language of Section 605.104(a), which requires the submission of either the sample or the analytical results of a sample from a certified laboratory.

Were the Board to decline altogether to adopt a regulation simply because the Agency states that it cannot afford to implement it, the Board believes that it would be tantamount to delegating its rulemaking authority to the Agency in violation of the Act. For all effective proposes, the Agency would be deciding which rulemakings would proceed and which would not. But where, as here, the Board believes that the proposed rule is necessary to protect the public (served by supplies serving fewer than 10,000) and that it is technically feasible and economically reasonable, the Board will proceed to fulfill its responsibility under Sections 14, 17, and 27 of the Act.

Cost of Compliance

The Agency's next comment is that the Board "has not adequately considered the costs of the proposed regulation." In addition to its previously addressed argument, the Agency states that another significant and unavoidable immediate cost to the Agency would be the revision of the Agency's data system to include supplies under 10,000. The Agency argues that the record

maintenance for TTHM for supplies under 10,000 would have to be manually kept or revision of the present data system would be required. To revise the present data system to include the smaller supplies, the Agency estimates a cost of $5,000. The Agency also maintains that to implement the sampling in accordance with the proposed schedule, a general mailing to all supplies under 10,000 needs to be done. The Agency points out that this mailing will be costly, another expense not provided for in the Agency budget.

The Board is not unaware that the implementation of a regulation requires expenditures. The $5,000 cost to revise the data system and the unspecified cost of providing notice to the supplies does not appear to be unreasonable in light of the benefits derived. The Board points out that the Department of Energy and Natural Resources (DENR), in its Economic Impact Study (EcIS), found that the cost per examination (which includes 4 samples) is $215.40 and that the proposed rule potentially affects 381 public water supplies which in turn serve a total of 846,432 individuals. They also estimate that less than 20% of the sources are likely to be out of compliance with the proposed total TTHM standards. Nothing submitted in the Comments suggests that this estimation is in error. Thus, in light of the protection afforded those potential 846,432 individuals, the Board believes the expenditures estimated above are reasonable.

The Agency also states that the costs to public water supplies will be greater than those considered by the Board. As the Board has revised the text of Section 615.104(b), as noted above, the Agency's comments on the costs of analysis to the supply merit attention. The Agency states that one of the greatest costs to the supplies will be the costs of upgrading the treatment plant. The Agency maintains that some satellite supplies may have no equipment at all, and will have to fund, design and construct equipment to come into compliance. The Agency, however, does not provide cost estimates.

The Board is not persuaded. The EcIS provides approximately fourteen (14) alternative strategies available to public water supplies for reducing TTHMs and the costs associated with each. (EcIS, pp. 45-73). Cost estimates vary depending on the strategy employed and the number of people served. Two of the strategies, "Control of Precursors at the Source" and "Moving the Point of Chlorination Downstream" require no direct capital costs and a minimal amount of labor time and resources to implement. Also, the costs associated with the other strategies do not appear to be unreasonable.

The Board notes that the many variable factors, such as control strategies, population served, etc., can result in many cost scenarios, some of which, if all else fails, may appear to be unreasonable. The Board notes that where compliance with this

regulation would impose an unreasonable hardship upon the water supply, the Environmental Protection Act provides certain forms of relief.

Sampling and Compliance Dates

The Agency's next comment is that the May-October, 1989 initial sampling date and the January 1, 1990 compliance date are arbitrary and unreasonable. The Agency argues that for at least a portion of the May-October, 1989 sampling period, it is likely that no adopted regulations will exist. The Agency believes that public water supplies may be unwilling to initiate sampling in response to proposed regulations. Further, the Agency argues, even if the samples can be collected then more sampling will be required for many supplies. Further, the Agency argues

> If the initial sample exceeds 0.100 mg/l, one year of quarterly sampling must still be done. Requiring compliance by January 1, 1990 will put many supplies out of compliance with Board regulations even when sampling has not shown them to be in violation of the standards! The number of supplies in that situation could be significant, prompting a rash of variance applications whose compliance plan would consist of a request for one-year sampling.
>
> (P.C.#6, at p.4)

The Agency believes that the first practical compliance date would be January 1, 1992.

To a certain extent, the Board is persuaded to extend the dates for sampling and compliance. The Board agrees that the rulemaking proceeding may not become finally effective, i.e., through Second Notice review by the Joint Committee on Administrative Rule (JCAR), final adoption, and filing with the Secretary of State, until after November 1, 1989. So as to provide adequate time in which to provide notice to the supplies and an opportunity to prepare to comply, the Board has amended the initial sampling dates to May 1, 1990 through October 31, 1990. Moreover, the Board believes that this extension will provide the Agency with adequate time to seek the resources necessary to implement the rule, as previously discussed.

Similarly, the date of required compliance has also been extended. The Board believes that a compliance date of January 1, 1992 is reasonable. As samples will be submitted between May and October, 1990, the supplies should be aware by late 1991 whether or not they are in compliance, such that they can begin the intended process of coming into compliance.

Given the compliance schedule, the Board is not persuaded to await the federal Disinfectant Byproduct Regulations. The Agency states that USEPA may adopt more stringent standards for TTHMs and that these regulations are due for publication in early 1990. The Agency believes apparently that for purposes of consistency with federal requirements, Illinois would do well to await federal action. As the Board stated in its first Notice Opinion, USEPA's current timetable, as articulated in its semiannual Regulatory Agenda (53 Fed. Reg. 42492), is as follows: Notice of proposed Rulemaking in September, 1990, and Final Action on the rulemaking in September, 1991. The Agency has offered no support for its statement that the federal regulation is "due for publication in early 1990." Further, the Board notes that USEPA's timetable is speculative as the proposal itself is a year and half away. Finally, even if USEPA adheres to its articulated schedule, it is unlikely that public water supplies will be required to begin sampling until the summer of 1992, thereby extending a compliance date to possibly 1993. Based on these considerations the Board finds that awaiting federal action is not in the best interest of the public. The Board will therefore proceed.

State Mandates Act

The Agency's next comment is that the State Mandates Act (Ill. Rev. Stat. ch. 85, para 2201 et seq. (1987)) will likely apply. The Agency states that in this proceeding the Board is proposing to extend the existing TTHM regulations beyond the scope of the federal mandate (40 CFR 141.30) to apply to surface water supplies serving fewer than 10,000 people. The Agency argues that because the Board's action exceeds the federal mandate and requires expansion of services and additional expenditures of local government, the Board is creating a state mandate. The Agency's argument on this point is as follows:

> Section 6(b) of the State Mandates Act requires that the General Assembly shall reimburse the local government at least 50% but not more than 100% of the increase in cost attributable to the mandate, unless the service mandates meets one of the exclusion requirements. The most applicable of the service mandate exclusions would likely be that excluding annual net costs of less than $1,000. If the mandated testing costs less than $1,000, the exclusion may apply. Interpretation of the Board rule may or may not include the cost of control for TTHM as being mandated by the regulation. Ostensibly, the regulation only mandates a TTHM standard, not installation of control equipment. But, in reality, imposition of any standard does

> mandate for some community water supplies the installation of control equipment.
>
> A question regarding the actual enforceability of this regulation would exist if the State Mandates Act does apply. Section 8 of the Act states that if the General Assembly has not made the necessary appropriations to implement the service mandate, the local government is relieved of the obligation to implement the service mandate.
>
> Court interpretation of the applicability of the State Mandates Act on a case-by-case basis could impose some formidable legal burdens on the enforcement of these regulations.
>
> (P.C.#6 at p. 7)

The Board concurs with the Agency inasmuch as the Board believes that the State Mandates Act may apply. However, the Board does not share the Agency's apparent position that the possible application of the State Mandates Act should have a chilling effect on the progress of Board rulemakings.

Despite the existence of the State Mandates Act since 1981, the Board notes that the issue of its applicability to a particular Board rulemaking proceeding is here of first impression. Although the Board complies with Section 5 of the State Mandates Act by preparing a statement of Statewide Policy Objectives for each of its rulemakings, the Board has not been called upon to address the interplay, if any, between the Board's rulemaking authority and the provisions of the State Mandates Act. As previously set forth in the Opinion, the Board's rulemaking authority is generally set forth in Section 27 of the Act. Section 27 requires the Board to consider certain aspects of the proposal. With regard to State Mandates Act interplay, the most relevant consideration is that of "economic reasonableness of measuring or reducing the particular type of pollution." In this rulemaking, the Board has found that the implementation of the regulation will be economically reasonable. The Board believes that this finding of economic reasonableness exists whether or not the State Mandates Act applies and its provisions are carried out. The Board believes that the regulation is necessary to protect the public and that the costs to those who must comply are reasonable. That the State Mandates Act may provide assistance to local governments in the implementation of this regulation is well and good; however, it does not figure into the Board's consideration of economic reasonableness. In other words, if the State Mandates Act does not operate to provide assistance to a local government, that does not change the finding of economic reasonableness. It does

not make an economically reasonable rule economically unreasonable.

Thus, the Board does not believe that, in this proceeding, the States Mandates Act merits further consideration; the Board has found the rule to be economically reasonable in and of itself.

As its final comment, the Agency responded to three questions raised in the First Notice Opinion. First, the Agency stated that the language of Section 605.104(a) should not be amended to clarify specifically where samples should be taken. The Agency argues that because each supply is different, no one specific place for sampling can be identified for all systems. The Agency maintains that it must work with the supply to determine the appropriate sampling points. The Board accepts the Agency's position and will not change the language.

Second, the Agency states that it is unaware of any circumstances when a sample cannot be analyzed for maximum residence time concentration (MRTC), except where collection or lab errors occur as a result of air bubbles in the sample. Thus, it is the Agency's position that no other method of testing should be specified. Here, too, the Board accepts the Agency position and will not change the language.

Finally, the Agency states that because it cannot perform analyses for the supplies but forsees a possibility of private backlog, the phasing in of the regulation should be provided such that all sampling must be completed within 18 months of the May following adoption. As the Board extended the deadlines for sampling and compliance, as discussed above, the Board believes that a phasing-in period is no longer warranted.

ORDER

The following amendments are hereby proposed for Second Notice. The Clerk of the Board is directed to submit these proposed amendments to the Joint Committee On Administrative Rules.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE F: PUBLIC WATER SUPPLIES
CHAPTER I: POLLUTION CONTROL BOARD

PART 601

INTRODUCTION

Section	
601.101	General Requirements
601.102	Applicability

601.103 Severability
601.104 Analytical Testing
601.105 Definitions
Appendix References to Former Rules

AUTHORITY: Implementing Section 17 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1017 and 1027).

SOURCE: Filed with Secretary of State January 1, 1978; amended at 2 Ill. Reg. 36, p. 72, effective August 29, 1978; amended at 3 Ill. Reg. 13, p. 236, effective March 30, 1979; amended and codified at 6 Ill. Reg. 11497, effective September 14, 1982; amended at 6 Ill. Reg. 14344, effective November 3, 1982; amended in R84-12 at ___ Reg. _____, effective _____.

Section 601.105 Definitions

For purposes of this Chapter:

"Maximum Residence Time Concentration" (MRTC) means the concentration of total trihalomethanes found in a water sample taken at a point of maximum residence time in the public water supply distribution system.

"Point Of Maximum Residence Time" means that part of the active portion of the distribution system remote from the treatment plant where the water has been in the distribution system for the longest period of time.

(SOURCE: Amended at ___ Ill. Reg. effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE F: PUBLIC WATER SUPPLIES
CHAPTER I: POLLUTION CONTROL BOARD

PART 604
FINISHED WATER AND RAW WATER QUALITY AND QUANTITY

SUBPART A: BACTERIOLOGICAL QUALITY

SUBPART B: CHEMICAL AND PHYSICAL QUALITY

Section
604.201 Finished Water Quality
604.202 Contaminants and Maximum Allowable Concentrations
604.203 Exceptions to Maximum Allowable Concentrations
604.204 Action Pursuant to Exceedance of Maximum Allowable Concentration

AUTHORITY: Implementing Section 17 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat., 1987, ch. 111 1/2, pars. 1017 and 1027).

SOURCE: Filed with Secretary of State January 1, 1978; amended at 2 Ill. Reg. 36, p. 72, effective August 29, 1978; amended at 3 Ill. Reg. 13, p. 236, effective March 30, 1979; amended and codified at 6 Ill. Reg. 11497, effective September 14, 1982; amended at 6 Ill. Reg. 14344, effective, November 3, 1982; amended in R84-12 at ___ Ill. Reg. effective _____.

Section 604.203 Exceptions to Maximum Allowable Concentrations

The following supplementary conditions apply to the concentrations listed in Section 604.202.

d) Total Trihalomethanes:

2) Supplies serving ~~75,000~~ 10,000 or more individuals shall comply with the Total Trihalomethanes standard listed in Section 604.202 ~~by the effective date of these regulations.~~ Supplies serving ~~10,000~~ ~~to 74,999~~ fewer than 10,000 individuals shall comply with this standard by ~~November 5, 1983~~ January 1, 1992. ~~This standard does not apply to supplies serving less than 10,000 individuals.~~

(SOURCE: Amended at ___ Ill. Reg. effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE F: PUBLIC WATER SUPPLIES
CHAPTER I: POLLUTION CONTROL BOARD

PART 605

SAMPLING AND MONITORING

Section	
605.101	Frequency of Bacteriological Sampling
605.102	Minimum Allowable Monthly Samples for Bacteriological Analysis
605.103	Frequency of Chemical Analysis Sampling
605.104	Frequency of Trihalomethane Analysis Sampling
605.105	Monitoring Requirements for Radium-226, -228, and Gross Alpha Particle Activity
605.106	Monitoring Frequency for Radium-226, -228, and Gross Alpha Particle Activity
605.107	Monitoring Requirements for Man-Made Radioactivity
605.108	Monitoring Frequency for Man-Made Radioactivity

605.109 Surface Water Supplies Additional Monitoring Requirements
605.110 Modification of Monitoring Requirements
Appendix References to Former Rules

AUTHORITY: Implementing Section 17 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1017 and 1027).

SOURCE: Filed with Secretary of State January 1, 1978; amended at 2 Ill. Reg. 36, p. 72, effective August 29, 1978; amended and codified at 6 Ill. Reg. 11497, effective September 14, 1982; amended at 6 Ill. Reg. 14344, effective November 3, 1982; amended in R84-12 at ____ Ill. Reg. _____, effective _____.

Section 605.104 Frequency of Trihalomethane Analysis Sampling

a) Surface Water Sources for Supplies Serving 10,000 or More Individuals: Supplies serving 10,000 or more individuals shall submit at least four samples per treatment plant per quarter for analysis or analytical results from a certified laboratory for Total Trihalomethanes to the Agency. After results of four consecutive quarters demonstrate consistent Total Trihalomethanes concentrations below the Maximum Allowable Concentration, and upon written application by the supply, the Agency may reduce the sampling frequency to one sampling per quarter until the Maximum Allowable Concentration is exceeded or until a significant change in source or treatment method is made.

b) Surface Water Sources for Supplies Serving Fewer than 10,000 Individuals: Supplies serving fewer than 10,000 individuals shall submit at least one initial sample per treatment plant for analysis or analytical results from a certified laboratory for Maximum Residence Time Concentration (MRTC) taken between May 1, 1990 and October 31, 1990. After written request by the supply and the determination by the Agency that the results of the sample indicate that the supply is not likely to exceed the Maximum Allowable Concentration the supply shall continue to submit one annual sample per treatment plant for analysis or analytical results from a certified laboratory to the Agency taken between May 1 and October 31 of succeeding years. If the sample exceeds the Maximum Allowable Concentration, the supply shall submit to the Agency samples in accordance with the sampling frequency specified in Section 605.104(a) above.

bc) Groundwater Sources for Supplies Serving 10,000 or More Individuals: Supplies serving 10,000 individuals or more shall submit at least one sample per treatment plant for MTP analysis. After written request by the supply and the determination by the Agency that the results of the sample and local conditions indicate that the supply is not likely to approach or exceed the maximum allowable concentration, the supply shall continue to submit one annual sample per treatment plant, or report of analysis by certified laboratory to the Agency. If the sample exceeds the Maximum Allowable Concentration or cannot be analyzed for MTP, the supply shall submit samples in accordance with Section 605.104(a).

d) Groundwater Sources for Supplies Serving Fewer Than 10,000 Individuals - Supplies serving fewer than 10,000 individuals are not required to submit samples for trihalomethane analysis under this Section.

ce) Significant changes in water sources or treatment will require testing in accordance with Section 605.104(a).

df If the result of an analysis made pursuant to the reduced monitoring schedules provided by Section 605.104(a) indicates that the level of Total Trihalomethanes exceeds the Maximum Allowable Concentration listed in Section 604.202, the owner or operator of the supply shall initiate analysis of one check sample promptly after the exceedance is reported to the supply. If the check sample confirms that the level of Total Trihalomethanes exceeds the Maximum Allowable Concentration, the supply shall sample in accordance with the frequency set out in Section 605.104(a), for at least one year.

(Source: Amended at ___ Ill. Reg. effective _____)

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 28th day of September, 1989 by a vote of 6-0.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board