

ILLINOIS POLLUTION CONTROL BOARD  
May 5, 1993

IN THE MATTER OF: )  
 )  
SAFE DRINKING WATER ACT ) R93-1  
UPDATE, PHASE V RULES ) (Identical in Substance Rules)  
(7/1/92 - 12/31/92) )

Proposal for Public Comment.

Proposed Opinion of the Board (by J. Anderson):

SUMMARY OF TODAY'S ACTION

Pursuant to Section 17.5 of the Environmental Protection Act (Act), the Board today proposes to update its regulations that are identical in substance to USEPA regulations implementing the Safe Drinking Water Act (SDWA). The Board rules are contained in 35 Ill. Adm. Code 611. The text of the proposed rules appears in a separate order, adopted this same day.

Section 17.5 of the Act provides for quick adoption of regulations that are "identical in substance" to federal regulations; Section 17.5 provides that Title VII of the Act and Section 5 of the Illinois Administrative Procedure Act (APA) shall not apply. Because this rulemaking is not subject to Section 5 of the APA (5 ILCS 100/5-1 et seq. (Ill. Rev. Stat. 1991 ch. 127, par. 1005-1 et seq.)), it is not subject to first notice or to second notice review by the Joint Committee on Administrative Rules (JCAR).

As discussed more fully below, this rulemaking involves revisions and major additions to the Illinois SDWA rules, as originally adopted August 9, 1990, in docket R88-26 (effective September 20, 1990), and amended November 19, 1992, in docket R91-3 and R92-9 (consolidated) (effective December 1, 1992), and concurrently this date in docket R92-3 (effective upon filing). It includes the federal Phase V amendments to the chemical contaminant rules, as adopted by USEPA July 17, 1992.

The result of these proposed amendments will be to add MCLs and monitoring and notice requirements for five inorganic chemical contaminants (antimony, beryllium, cyanide, nickel, and thallium), three volatile organic chemical contaminants (dichloromethane, 1,2,4-trichlorobenzene, and 1,1,2-trichloroethane), and 18 synthetic organic chemical contaminants (benzo[a]pyrene, dalapon, di(2-ethylhexyl)adipate, di(2-ethylhexyl)phthalate, dinoseb, diquat, endothall, endrin, glyphosate, hexachlorobenzene, hexachlorocyclopentadiene, oxamyl, picloram, simazine, and 2,3,7,8-TCDD (dioxin)). The discussions that follow consider and discuss these amendments in detail.

## FEDERAL ACTIONS COVERED BY THIS RULEMAKING

The SDWA program was drawn from 40 CFR 141 (national primary drinking water regulations or NPDWRs), 40 CFR 142 (NPDWRs implementation), and 40 CFR 143 (national secondary drinking water regulations or NSDWRs). The nominal update period of this docket is from July 1, 1992 through December 31, 1992. On July 17, 1992, USEPA made adopted the Phase V rules. A small segment of the Phase V Rules was actually a correction to the Lead and Copper Rules. We adopted an amendment based on that correction in docket R92-3. No other federal actions occurred during this time-frame. The only federal action during the time-frame of this docket was as follows:

57 Fed. Reg. 31847 July 17, 1992 (Phase V rules)

## PUBLIC COMMENTS

The Board requests public comments on this proposal for public comment. A number of issues are specifically noted to elicit comments. The Board will receive comments for 45 days after a Notice of Proposed Amendments appears in the Illinois Register. The Board will then act promptly to adopt amendments based on the federal amendments involved in this docket.

Interested persons should address their comments to the Clerk of the Board. They should provide one original and nine copies and reference docket number R93-1 on the front of each copy.

## SDWA REGULATORY HISTORICAL SUMMARY

The Board adopted the initial round of USEPA drinking water regulations, including the "Phase I" rules, adopted by USEPA prior to June 30, 1989, as follows:

R88-26 114 PCB 149, August 9, 1990 (14 Ill. Reg. 16517, effective September 20, 1990).

Subsequent dockets updated the regulations to include federal amendments since that time:

R90-4 112 PCB 317, June 21, 1990 (dismissal; no USEPA amendments July 1 through December 31, 1989)

R90-13 117 PCB 687, December 20, 1990 (15 Ill. Reg. 1562, effective January 22, 1991) (January 1, 1990 through June 30, 1990)

R90-21 116 PCB 365, November 29, 1990 (14 Ill. Reg. 20448, effective December 11, 1990) (Corrections to R88-26)

- R91-3        -- PCB --, November 19, 1992 (16 Ill. Reg. 19010, December 11, 1992, effective December 1, 1992) (USEPA Phase II and Coliforms--consolidated with R92-9; July 1, 1990 through January 31, 1991)
- R91-15      -- PCB --, dismissed December 3, 1992 (February 1, 1991 through May 31, 1991)
- R92-3        -- PCB --, May 6, 1993 (USEPA Phase IIB and Lead and Copper rules; June 1, 1991 through December 31, 1991)
- R92-9        -- PCB --, November 19, 1992 (16 Ill. Reg. 19010, December 11, 1992, effective December 1, 1992) (Corrections to Phase I rules, R88-26)
- R92-12      -- PCB --, dismissed December 3, 1992 (June 1, 1992 through June 30, 1991)
- R93-1        This docket (USEPA Phase V rules; July 1, 1992 through December 31, 1992)

#### GENERAL DISCUSSION OF PRESENT ISSUES

This Update concerns the USEPA Phase V rules, adopted by USEPA on July 17, 1993. The Phase V rules involve instituting new MCLs for 26 contaminants. This involves five new inorganic chemical contaminants (IOCs: antimony, beryllium, cyanide, nickel, and thallium), three new volatile organic chemical contaminants (VOCs: dichloromethane, 1,2,4-trichlorobenzene, and 1,1,2-trichloroethane), and 15 new synthetic organic chemical contaminants (SOCs: benzo[a]pyrene, dalapon, di(2-ethylhexyl)-adipate, di(2-ethylhexyl)phthalate, dinoseb, diquat, endosulfan, endrin, glyphosate, hexachlorobenzene, hexachlorocyclopentadiene, oxamyl, picloram, simazine, and 2,3,7,8-TCDD (dioxin)). Accompanying these revised MCLs are modifications to many of the monitoring requirements relating to these and the existing 48 MCLs (12 IOCs, 18 VOCs, and 18 SOCs). The following discussions consider the federal actions in greater detail.

Incidental to this rulemaking is the proposed repeal or amendment of Parts 604 and 605 and amendment of Section 611.521. The Board repealed major segments of Parts 604 and 605 in R88-26, since the existing state rules were inconsistent with the new federal provisions adopted in that proceeding. The remaining Sections were left applicable until the corresponding federal rules became effective as to a particular supplier. The last federal effective date is June 29, 1993, not long before the Board intends to adopt the Phase V amendments. The Board opens the issue of what to do with these provisions by suggesting alternative actions.

## DETAILED SECTION-BY-SECTION-ANALYSIS

The Board proposes amendments in response to these federal actions. The following detailed section-by-section discussion focuses on the details of the actions taken.

### Routine, General Amendments--All Sections

The Board has also performed a number of standard deviations from the text of the federal rules. The rationale behind many of these is discussed in the August 9, 1990 opinion and order in docket R88-26 (Phase I rules), and we will not repeat those discussions here. Others are so minor as to warrant no explanation. The standard changes are as follows:

1. Where the federal rules require an action "by" a certain date, the Board renders that as "on or before" that date.
2. We have changed various of the subsections to the active voice, rather than following the federal use of the passive voice.
3. We have updated all Board Notes to reflect the 1992 version of the Code of Federal Regulations and to reference the July 17, 1992 Federal Register action, where appropriate.
4. We have made a number of changes based on the unique attributes of the Illinois regulatory scheme and on certain syntactic preferences, as described in the Addendum re Standardized Modifications of Federal Text at the end of this opinion.

### General Housekeeping Amendments

#### Potential Repeal or Amendment of Existing Disinfection Rules-- Parts 604 and 605 and Section 611.240

In R88-26, as part of the Phase I Rules, the Board adopted Subpart B (Filtration and Disinfection) and Subpart L (Microbiological Monitoring and Analytical Requirements) to Part 611. This meant the repeal of most of Parts 604 and 605, since those segments were inconsistent with the newer, federally-derived regulations of Part 611. However, USEPA imposed delayed effective dates as to disinfection for various suppliers, and rather than have no standards until the effective dates of the federally-derived standards, the Board chose to have certain provisions in Parts 604 and 605 expire when the federally-derived standards became effective.

For this reason, the Board amended all remaining Sections in Parts 604 and 605, Sections 604.101, 604.102, 604.103, 604.104, 604.105, 604.401, 605.101, 605.102, and 605.109, so that they

lost effect when the federally-derived standards of Subpart B to Part 611 became effective as to any particular supplier. Subpart B derived primarily from 40 CFR 141.70 through 141.73 and 141.75. In docket R92-3, the Board repealed Sections 605.101 and 605.102, rather than correct the references in Part 605 to "35 Ill. Adm. Code 611.Subpart B" to properly read "35 Ill. Adm. Code 611. Subpart L", because the federal monitoring requirements supplanting them were already in effect. Section 605.109 was left intact as effective until the standards of Subpart B of Part 611 became effective.

USEPA divided the universe of suppliers into categories and phased the effective dates for each for the disinfection requirements. The distinctions drawn are based on the supplier's raw water source and its filtration status. The distinctions drawn for the purposes of filtration requirements are primarily based on the supplier's raw water source.

Suppliers using surface water sources (SWSs) (and mixed-source systems) that did not provide filtration was to have provided disinfection treatment by December 30, 1991, unless the state had determined pursuant to 42 U.S.C. § 1412(b)(7)(C) that filtration was required (a determination that the Board is not aware was ever made in Illinois). A SWS supplier using filtration was to begin providing disinfection treatment no later than the later of June 29, 1993 or when filtration was installed. A SWS supplier that did not want to employ filtration was to have complied with the conditions for avoiding filtration by December 30, 1991 (18 months after the federal promulgation date of June 29, 1989). If the SWS failed to meet those conditions, it was to have employed both filtration and disinfection by the later of June 29, 1993 or within 18 months of the failure to meet the conditions. (40 CFR 141.72 preamble (1992); 35 Ill. Adm. Code 611.240.)

Thus, the SWSs not initially using filtration were to have begun disinfection treatment on December 30, 1991, and those initially using filtration must begin disinfection treatment by June 29, 1993. On the face of this, only those who install filtration later than 18 months before June 29, 1993 (pursuant to a 42 U.S.C. § 1412(b)(7)(C) determination) might achieve a later compliance deadline. However, the Board wonders whether any suppliers actually fall within this group. **We request comment on whether there are actually any SWS suppliers in Illinois that will have a disinfection compliance deadline later than June 29, 1993 under the federally-derived rules.**

For GWSs, a state determination that the raw water source was under the direct influence of groundwater was required before disinfection was required under the federal rules. A GWS that did not provide filtration, and which the state determined to be under the direct influence of surface water, was to have provided

disinfection treatment by the later of December 30, 1991 or within 18 months of when the state made the determination, unless the state had determined pursuant to 42 U.S.C. § 1412(b)(7)(C) that filtration was required. GWS suppliers that were found by the state to be under the direct influence of surface water were to employ disinfection by the later of June 29, 1993 or when filtration was installed. (40 CFR 141.72 preamble (1992); 35 Ill. Adm. Code 611.240.)

In the federal phase-in, USEPA did not impose the disinfection requirements on GWS suppliers not determined to be under the direct influence of surface water. The Board saw fit to impose, as an additional state requirement, the new federally-derived disinfection requirements on those suppliers effective immediately (September 20, 1990). (The Agency may exempt any GWS supplier if it specifically determines that the GWS is from a protected aquifer pursuant to Section 17(b) of the Act. The Board interpreted this determination as equivalent to a determination that the GWS was not under the direct influence of surface water. This means that under the federal scheme a GWS supplier need not disinfect until an affirmative state determination requires it to do so. Under the Board's chosen scheme, and that previously imposed by Section 604.401, the GWS supplier must disinfect using the federally-derived standards until an affirmative Agency determination allows it not to do so.) (35 Ill. Adm. Code 611.240(g); see R88-26 opinion at 23-27, 114 PCB 149, 171-75.)

Therefore, as with the SWSs, all unfiltered GWSs initially found to be under the direct influence of surface water were to have due instituted disinfection treatment by December 30, 1991, or within 18 months of a state "under the influence" determination. All other GWSs (those filtered) found under the influence were to employ disinfection by June 29, 1993 or upon installation of filtration. Since Illinois interposes the Section 17(b) determination, the Illinois regulations might be read as structured to effectively presume that all GWSs are under the direct influence of surface water, and again, the Board is unaware whether there are any GWS suppliers for whom the federally-derived disinfection requirements do not require disinfection as of June 29, 1993. **We request comment on whether there are actually any GWS suppliers in Illinois that will have a disinfection compliance deadline later than June 29, 1993 under the federally-derived rules.**

If all SWS and GWS suppliers in Illinois are required to employ disinfection by June 29, 1993, there will be no suppliers to whom the remaining segments of Part 604 will apply after that date. If this is true, **the Board requests public comments on whether we should repeal Part 604 in its entirety as part of this docket.**

However, Part 604 might have continued vitality if the Board were to reverse action taken in R88-26 with regard to GWS suppliers not found to be under the direct influence of surface water. Under both the federal and state regulations, this requires a specific finding by the Agency. Notwithstanding the Section 17(b) determination that allows a GWS supplier to not employ filtration and disinfection, it was (and is) possible for the Board to impose the requirements of Part 604 on a GWS supplier until the Agency makes an express determination that the source is under the direct influence. The Part 611 disinfection requirements impose a different standard for disinfection than those of Part 604. In both cases disinfection is required until the Agency makes a Section 17(b) determination that would make it not necessary. The Board prefers to impose a single standard for disinfection throughout the state, which means employing the deadlines chosen in R88-26, but we recognize that this imposes the federal standard for disinfection on GWS suppliers to whom the standard would never otherwise apply. **The Board requests public comments on whether we should delete Section 611.240(g) in lieu of repealing Part 604, thereby rendering Part 604 applicable to GWS suppliers for whom the Agency has not made an "under the direct influence of surface water" determination.** To open Section 611.240 for the purposes of public comments and this potential amendment, the Board proposes the amendment of the Code of Federal Regulations reference in the Board Note following subsection (f).

As to the remaining Section in Part 605, Section 605.109, it loses effect when the filtration and disinfection provisions of 35 Ill. Adm. Code 611.Subpart B become effective as to any particular supplier. This Section requires daily sampling and analysis for turbidity. Since this is the only provision remaining in Part 605, and since it expires when the Part 611 filtration and disinfection requirements become effective, **the Board requests comment on whether there are any suppliers that will remain subject to this provision after June 29, 1993 and, if not, whether we should repeal Part 605 in its entirety as part of this docket.**

#### Potential Recodification of Subtitle F: Public Water Supplies

The pace of adoption and amendment of the federally-derived Part 611 rules has occurred rapidly since prior to the August, 1990 adoption of R88-26, the first of these several dockets. The Board has worked very hard to keep up with the fast pace of federal revisions. In the process, the text of Part 611 has grown voluminous and increasingly complex:

Part 611	Primary Drinking Water Standards
Subpart A	General (17 Sections)
Subpart B	Filtration and Disinfection (18 Sections)

Subpart C	Use of Non-Centralized Treatment Devices (2 Sections)
Subpart D	Treatment Techniques (3 Sections)
Subpart F	Maximum Contaminant Levels (7 Sections)
Subpart G	Lead and Copper (11 Sections)
Subpart K	General Monitoring and Analytical Requirements (5 Sections)
Subpart L	Microbiological Monitoring and Analytical Requirements (10 Sections)
Subpart M	Turbidity Monitoring and Analytical Requirements (1 Section)
Subpart N	Inorganic Monitoring and Analytical Requirements (15 Sections)
Subpart O	Organic Monitoring and Analytical Requirements (7 Sections)
Subpart P	THM Monitoring and Analytical Requirements (5 Sections)
Subpart Q	Radiological Monitoring and Analytical Requirements (3 Sections)
Subpart T	Reporting, Public Notification and Recordkeeping (14 Sections)

Additionally, Part 611 now includes five appendices and eight tables.

In the past, the various Parts of Subtitle F were arranged topically, and each was relatively brief:

Part 601	Introduction (5 Sections)
Part 602	Permits (20 Sections)
Part 603	Ownership and Responsible Personnel (5 Sections)
Part 604	Finished Water and Raw Water Quality (potentially repealed in this docket)
Subpart A	Bacteriological Quality (5 Sections)
Subpart B	Chemical and Physical Quality (4 Sections, repealed)
Subpart C	Radiological Quality (3 Sections, repealed)
Subpart D	Chlorination and Fluoridation (5 Sections, 4 repealed, 1 potentially repealed in this docket)
Subpart E	Raw Water (2 Sections, repealed)
Part 605	Sampling and Monitoring (10 Sections, 9 repealed, 1 potentially repealed in this docket)
Part 606	Reporting and Public Notification (repealed)
Subpart A	Reporting (3 Sections, repealed)
Subpart B	Public Notification (5 Sections, repealed)
Part 607	Operation and Recordkeeping (6 Sections,

4 repealed)

However, assuming the Board repeals Parts 604 and 605 as part of this docket, only Parts 601 (5 Sections), 602 (20 Sections), 603 (5 Sections), 607 (2 Sections), and 611 (118 Sections, five appendices, and eight tables) still viable.

This causes the Board to consider dividing the bulk of Part 611 into smaller, more manageable pieces, possibly re-using Parts 604 through 606, augmenting Part 607, and creating new Parts in some future proceeding. The pace of federal amendments has ebbed and will remain less than it has been for the past few years, as evidenced by USEPA's semiannual regulatory Agenda, published in the Federal Register on November 2, 1992:

Regulatory Title (Board Docket)	Federal Procedural Stage (Fed./State)	Federal Cite
Lead and Copper Rules (in R92-3)	Final Rule 6-7-91/ Adopted Amendments 5-6-93	56 Fed. Reg. 26547
Phase IIB Rules (in R92-3)	Final Rule 7-1-91/ Adopted Amendments 5-6-93	56 Fed Reg. 32074
Phase V Rules (in R93-3)	Final Rule 7-17-92/ Proposed Amendments 5-6-93	57 Fed. Reg. 31838
E. Coli Analytical Methods	Proposed Rule/--	Expected in 10-92 (not yet adopted by USEPA)
Radionuclides Analytical Techniques	Proposed Rule/--	Expected in 4-93
Trihalomethanes Analytical Methods	None/--	Expected in 9-93
Arsenic Rule	None/--	Expected in 11-94
Sulfate Rule	None/--	Expected in 9-95
Phase VIA (Disinfection By- products)	None/--	Expected in 6-95
Phase VIB (25 contaminants)	None/--	Expected in 6-95

0142-0327

Groundwater  
Disinfection

None/--

Expected in 9-96

This indicates that although USEPA plans some further significant amendments to its drinking water rules, those will not prompt another rapid succession of voluminous Board actions for several more months, after this present proceeding is completed.

The Board may use the next opportunity (i.e., the next routine update docket for the period January 1 through June 30, 1993) to recodify the federally-derived regulations into several Parts. **The Board requests public comments as to a possible Part-by-Part subject matter organization for any such recodification.**

#### The Phase V-Derived Amendments

##### Definitions--Sections 611.101 & 611.640

The general definitions section, Section 611.101, derives in significant part from 40 CFR 141.2. USEPA amended this provision on July 17, 1992, at 57 Fed. Reg. 31838. USEPA revised the definition of "initial compliance period" so that (1) the references to the Phase V contaminants were included and (2) the initial compliance period for suppliers serving fewer than 150 service connections begins in the first full compliance period after the effective date of a new regulation. That is January 1, 1996 through December 31, 1998 for the Phase V contaminants. Formerly, the initial compliance period was January 1, 1993 through December 31, 1995 for all suppliers, as it still remains for suppliers serving 150 or more service connections.

The Board has proposed the federal amendment, but with significant structural changes. We have drafted the definition so that the initial compliance period begins on January 1, 1993, except for the Phase V contaminants (each listed by name) for which it begins on January 1, 1996.

The Board has made two additional amendments to Section 611.101 based on the federal Phase V Rules, but these are based on the need to add clarity rather than on any specific federal amendments. We added a definition of "Phase V", as referring to that group of chemical contaminants promulgated by USEPA on July 17, 1992, consistent with existing usage for previous federal rules. We also amended the definitions of "SOC" and "VOC" to include the respective names of the new Phase V chemical contaminants. We observed in doing so that we neglected to add the names of aldicarb, aldicarb sulfone, aldicarb sulfoxide, and pentachlorophenol to the definition of "SOC" in docket R92-3. We add them in this proceeding.

Section 611.640 does not derive from any particular federal provision. Rather, the Board derived these organic monitoring-

specific terms from the need for defined, consistent use throughout Subpart O. The Phase V amendments have prompted us to delete endrin from the definition of "old MCL". They also prompted us to add definitions of "Phase V SOC" and "Phase V VOC". We have also added references to "Phase IIB SOC" (and oversight from docket R92-3), "Phase V SOC", and "Phase V VOC" to the definition of "revised MCL".

**The Board requests public comments on the way we have dealt with the definitions amendments to Sections 611.101 and 611.640.**

Revisions to the Analytical Methods/Incorporations by Reference and Monitoring and Analytical Provisions--Sections 611.102, 611.510, 611.600, 611.601, 611.603, 611.609, 611.611, 611.612, 611.646, 611.647 & 611.648

Section 611.102 is the incorporations by reference Section for Part 611. There are primarily linear relationships between Subpart N and 40 CFR 141.23 and between Subpart O and 40 CFR 141.24. This means that Section 611.600 derives from 40 CFR 141.23 preamble and paragraph (a)(4)(1), Section 611.601 derives from 40 CFR 141.23(a), Section 611.603 derives from 40 CFR 141.23(c), Section 611.609 derives from 40 CFR 141.23(i), Section 611.611 derives from 40 CFR 141.23(k), major segments of Section 611.612 derive from 40 CFR 141.23(l) through (q), Section 611.646 derives from 40 CFR 141.24(f) and Section 611.638 derives from 40 CFR 141.24(h).

As part of the Phase V amendments, at 57 Fed. Reg. 31838 (July 17, 1992), USEPA amended 40 CFR 141.23 as follows (including citations to the corresponding Illinois rules):

Federal Action and Subsection or Paragraph Number	Corresponding Illinois Section
amended (a)(4)(i)	611.600(d)
added (a)(4)(iii)	611.601(c)
amended (c) preamble and (c)(1)	611.603 preamble and subsection (a)
amended (i)(1)	611.609(a)
adding a new (k)(4)	added in part to 611.611(a), with footnote 6 becoming 611.611(f)
redesignating former (k)(4) as (k)(5) and amending it	611.611(d)
redesignating former (k)(5) as (k)(6) and amending it	611.611(e)

The major thrust of these federal amendments was to add appropriate references to the five new Phase V IOCs (antimony, beryllium, cyanide, nickel, and thallium), to add methods for these contaminants, to add sample preservation techniques for

them, to add laboratory acceptance limits for them, and to conform all references to the former beginning of the initial compliance period by deleting references to "January 1, 1993".

The Board has proposed amendments corresponding with those made by USEPA. We have found it necessary, however, to make additional amendments as a result of the federal actions. This is, in part, due to the scope of the federal amendments. It also relates to what we perceive as possible USEPA oversights.

We add the new federally-designated methods for each of the new IOC contaminants. This means new methods and detection limits for the IOC contaminants, antimony, beryllium, cyanide, nickel, and thallium, at Section 611.600(d), the new methods at Section 611.611(a), the sample preservation techniques at Section 611.611(d), and the laboratory certification requirements at Section 611.611(e). We add the federal references to these new IOC contaminants at Sections 611.601(d)(2); 611.603 (preamble); and 611.609(a), (d), and (e) (preambles). In rendering footnote 6 to the table of methods at amended 40 CFR 141.23(k)(4), we have added subsection (f) to Section 611.611 that outlines the sample preparation technique and added a notation to the preamble to subsection (a) to the effect that the laboratory must use that technique for designated analytical methods.

We also make changes apparently overlooked by USEPA. The Board added references to the new IOCs at Section 611.609(b) (corresponding with 40 CFR 141.23(i)(2), which USEPA did not amend). We further added similar references to the Section 611.611(e) (preamble) statement relating to provisional laboratory certification (corresponding with renumbered and amended 40 CFR 141.23(k)(6) (preamble)) because we wonder whether USEPA intended the provisional certification to apply to all of the pre-existing IOCs. We delete the method for barium at Section 611.612(f)(2) (corresponding with 40 CFR 141.23(q)(2)) because the old MCL for barium was repealed as part of the Phase IIB amendments in R92-3.

The Board similarly has rendered the method for the state-only MCL cyanide, at Section 611.612(f)(3), inapplicable when the new federally-derived MCL becomes effective. The revised MCL for cyanide added to Section 611.301(a) will become effective on January 17, 1994. Deleting the method for cyanide in this docket before the federally-derived MCL becomes effective could render the state-only MCL virtually unenforceable.

In the course of reviewing the federal IOC analytical methods, the Board also noticed that USEPA updated several of the references for methods for the pre-existing IOCs. Thus, all references to Standard Methods in Section 611.611 (corresponding with 40 CFR 141.23(k)(4)) are now to the 17th edition and the correspondingly revised method numbers. This meant adding the

federal footnote 6 sample preparation technique, already referred to, for existing methods for barium, cadmium, chromium, and selenium. The references for existing ICP method 200.7 was updated to what the Board now calls "USEPA Environmental Metals Methods: Method 200.7" for barium, cadmium, and chromium. Similarly, what the Board called "USEPA Inorganic Methods: Method 300.0" is updated and now called "USEPA Ion Chromatography Method 300.0" for nitrate and nitrite. Finally, the Board adds the federal notations to "the sample digestion technique set forth in the method" (federal footnote 9) and to "adding 2mL of 30% hydrogen peroxide" (federal footnote 10) to the existing methods for mercury and selenium, as appropriate.

**The Board requests public comments on the way we have dealt with the IOC analytical amendments to Sections 611.600, 611.601, 611.603, 611.609, 611.611, and 611.612.**

Also a part of the Phase V amendments, at 57 Fed. Reg. 31841 (July 17, 1992), were amendments to 40 CFR 141.24, as follows (including citations to the corresponding Illinois rules):

Federal Action and Subsection or Paragraph Number	Corresponding Illinois Section
amended (f) preamble, (f) (4), and (f) (5)	611.646(d) and (e)
amended (f) (7) and (f) (10)	611.646(g), (i), and (j)
amended (f) (12)	611.646(l)
amended (f) (14)	no corresponding provision
amended (f) (15)	611.646(o)
amended (f) (16)	611.646(p)
amended (f) (17)	611.646(q)
amended (f) (18)	611.646(r)
amended (h) (10)	no corresponding provision
amended (h) (12)	611.648(l)
amended (h) (18)	611.648(r)
amended (h) (19)	611.648(s)

As for the IOCs, the major thrust of these federal amendments was to add appropriate references to the three new VOCs (dichloromethane, 1,2,4-trichlorobenzene, and 1,1,2-trichloroethane) and 15 new SOCs (benzo[a]pyrene, dalapon, di(2-ethylhexyl)adipate, di(2-ethylhexyl)phthalate, dinoseb, diquat, endothall, endrin, glyphosate, hexachlorobenzene, hexachlorocyclopentadiene, oxamyl, picloram, simazine, and 2,3,7,8-TCDD (dioxin)), to add methods for these contaminants, to add laboratory acceptance limits for them, and to conform all references to the former beginning of the initial compliance period by substituting "in the initial compliance period" for references to "January 1, 1993".

We add the new federally-designated methods for each of the

new VOC contaminants. This is easier than the amendments related to IOCs and SOCs because it requires only broadening the references at the existing methods to include the Phase V VOCs. Thus, "Phase I or Phase II VOCs" now reads "Phase I, Phase II, or Phase V VOCs". Also, at subsections (d), (e), and (r)(2), "January 1, 1993" is changed to refer to the initial compliance period. We defer discussion of the SEP amendment to subsection (g) for the next segment of this opinion.

The Board foresees that this rendering that uses the federal Phase designations may become unwieldy, if it has not done so already. Therefore, we might consider just rendering these references as "VOCs" in a future docket. To date, the purpose for designating the Phases was due to the separate requirements for monitoring the Phase I VOCs in Section 611.647. Since Section 611.646 also applies to Phase I VOCs, it may be possible at some future date to repeal Section 611.647 in its entirety. We hesitate, however, because the remaining subsections in Section 611.647 do not contain any time-limiting language, such as "until January 1, 1993", as did subsection (h) prior to the substantive repeal of docket R92-3. Application to "systems in operation before January 1, 1993, for purposes of initial monitoring", as stated in the preamble, is not sufficiently clear that the Board can assume that repeal would not result in federal primacy problems.

**The Board requests public comments on the way we have dealt with the VOC analytical amendments to Section 611.646. We especially request comments on the future possibility of redesignating all VOCs together as "VOCs", by dropping the Phase designations, and on the possible repeal of Section 611.647 as having no continued future vitality in light of Section 611.646 covering the same contaminants.**

We add the new federally-designated methods for each of the new SOC contaminants. This is, in part like the VOC amendments to Section 611.646, in that an update to a number of references to "Phase II SOCs" were updated to read "Phase II, Phase IIB, and Phase V SOCs". (The Phase IIB designation was overlooked in docket R92-3.) On the other hand, a number of methods updates were necessary, as for the IOCs. This means new detection limits for the SOC contaminants appear at subsection (r)(2), the new methods and added contaminants for existing methods appear at subsection (1), and the laboratory certification requirements appear at subsection (s)(2)(C). Also, at subsections (d)(1) and (n)(2), "January 1, 1993" is changed to refer to the initial compliance period.

A more detailed examination of the analytical methods assignments indicates the federal SOC methods assignments and the possible need to correct a USEPA error. Endrin, hexachlorobenzene, hexachlorocyclopentadiene, and simazine were added to

existing "USEPA Organic Methods" Method 505; simazine was added to Method 507; endrin and hexachlorobenzene were added to Method 508; dalapon, dinoseb, and picloram were added to Method 515.1; di(2-ethylhexyl)adipate, di(2-ethylhexyl)phthalate, endrin, hexachlorobenzene, hexachlorocyclopentadiene, "polynuclear aromatic hydrocarbons", simazine, and toxaphene were added to Method 535.1; and oxamyl was added to Method 531.1. The Board added endrin, for the purposes of the state-only MCL to methods 505 and 508 in R91-3 (Nov. 19, 1992); therefore, we need only add this contaminant to Method 525.1.

In amending Method 525.1 to add the new contaminants, USEPA left out the language originally included in the Phase II Rules where USEPA added this provision (docket R91-3). That language uses a 1991 later-revised version of the method. In assuming that USEPA erred in deleting the language, the Board does not now propose its deletion.

USEPA added six new methods for Phase V contaminants. It added what the Board has called "USEPA Dioxin and Furan Method 1613" for 2,3,7,8-TCDD (dioxin). We see no indication that this is in any way connected with the "USEPA Organic Methods", so we have kept this method separate. The rest of the new methods appear all from "USEPA Organic Methods": Method 547 for glyphosate, Method 548 for endothall, Method 549 for diquat, Methods 550 and 550.1 for benzo(a)pyrene and "other polynuclear aromatic hydrocarbons".

**The Board requests comments on our approach to making the federal Phase V amendments to Section 611.648 relating to monitoring the new SOC contaminants. We especially request comment as to whether we have properly corrected an apparent error by retaining the 1991 "revision 3.0 for method 525.1, which USEPA dropped.**

Finally, Section 611.510 derives from 40 CFR 141.40(n). USEPA amended this provision, relating to monitoring for unregulated contaminants, at 57 Fed. Reg. 31845 (July 17, 1993). The effect of the federal amendments is to delete the listings for all the Phase V IOCs, at paragraph (n)(11), and VOCs and SOCs, at paragraph (n)(12), that are now regulated and for which there are now MCLs. The Board makes the federal deletions at corresponding subsections (k) and (l). We also change the methods columns headings to read "USEPA Organic Methods" and "USEPA Inorganic Methods", respectively, in keeping with the usage established in docket R91-3 for the rest of the monitoring provisions in Part 611.

**The Board requests comments on our approach to the deletions from the listing of unregulated contaminants.**

Special Exception Permits--Sections 611.110 & 611.646

The federal Phase V amendments included new language at the end of 40 CFR 141.24(f)(7) (corresponding with Section 611.646(g)) that allows the states to waive the initial round of monitoring for 1,2,4-trichlorobenzene for small system suppliers. The federal rules do not define a "small system" in the regulatory text (outside of the context of the Lead and Copper Rules, where it is defined as regularly serving fewer than 3,300 persons). However, the preamble to the federal rules, at 57 Fed. Reg. 31825, appears to contemplate a system with fewer than 500 service connections. The Board adds this language with a change that indicates this size limitation in terms of the number of service connections.

We make a small number of amendments to the core SEP provision at Section 611.110 to implement the federal Phase V Rules. All references at subsection (e) are now to "Phase I, Phase II, and Phase V VOCs" and "Phase II, Phase IIB, and Phase V SOCs". Additionally, we add to subsection (e) a reference to the SEP from the 1,2,4-trichlorobenzene monitoring requirement of Section 611.646(d) for small system suppliers.

**The Board requests comment on our approach to the federal waiver provisions.**

BAT Designations for Contaminants--Sections 611.130, 611.300(c) & 611.311(b)

USEPA added new designations of the best available treatment technology (BAT) for each of the Phase V contaminants at 40 CFR 141.62, for IOCs, and 40 CFR 141.61, for VOCs and SOCs. The Board has adopted these designations without change at corresponding Sections 611.301(c) and 611.311(b). However, USEPA kept with its prior practice of adding to the separate listings of BAT in the implementation rules of 40 CFR 142.

When adapting 40 CFR 142, Subpart G in R92-3, the Board referred to the main BAT listings at Sections 611.310 and 611.311, rather than follow the federal structure and maintain a separate listing at the conditions for relief provisions. That saved space and avoided confusion as to whether the BAT designations were different in the two contexts. At 57 Fed. Reg. 31848 (July 17, 1992), USEPA amended 40 CFR 142.62 to add BAT for each of the Phase V contaminants. Those added listings are similar to the ones added at 40 CFR 141.61 and 141.62, with three notable exceptions: the heading "PTA", for packed tower aeration", in 40 CFR 161.61 appears as "PAT" in section 142.62; PTA appears in section 142.62 for alachlor, whereas it does not appear in section 141.61; PAT does not appear in section 142.62, whereas it appears in section 141.61 for toxaphene; and "OX" (oxidation) appears in section 142.62 for hexachlorobenzene,

whereas granulated activated carbon (GAC) appears in section 40 CFR 141.61.

Faced with this apparent federal error, the Board has decided to remain with our single-listing structure and follow the actual text of the federal substantive rule--i.e., the BAT listings of 40 CFR 141.61. However, this still leaves confusion. In the course of determining USEPA's intent, we examined the federal listings of BAT in the preamble discussions, at 56 Fed. Reg. 3529 (Jan. 30, 1991) (toxaphene is a Phase II contaminant) and 57 Fed. Reg. 31778. This discussion indicates that the 40 CFR 141.61 listing is correct as to alachlor and hexachlorobenzene, but the preamble at 56 Fed. Reg. 3529 indicates that USEPA may not have intended PTA as BAT for toxaphene. We have added a Board Notes to this effect at Section 611.130(c)(1) and 611.311(b). Nevertheless, we have followed the actual text of 40 CFR 141.61(b) because the rule text is enforceable and the federal preamble discussion is not.

**The Board requests comments on the codification of BAT for the chemical contaminants at Sections 611.301(c) and 611.311(b). Specifically, we request comment on our use of the single listings of BATs for both the substantive rules and the limitations on relief rules of Section 611.130 and on our dealing with the apparent federal errors as to alachlor, toxaphene, and hexachlorobenzene.**

MCLs--Sections 611.300, 611.301, 611.310, and 611.311

Section 611.300 derives from 40 CFR 141.11. USEPA did not amend this provision in the current update period, but other federal amendments prompted Board action and inquiry.

The only remaining federal MCL at 40 CFR 141.11(b) is that for arsenic. The Board has in dockets R91-3 and R92-3 followed the federal lead and deleted the remaining federally-derived MCLs from Section 611.300(b). USEPA has retained the introductory text of subsection (a), the fluoride limitation of subsection (c) (which the Board has listed in subsection (b)), and the conditions for higher nitrate limitations for non-CWSs in subsection (d). The Board has also followed the federal lead to retain these, even if it has lead to a double listing of the MCL for fluoride at both Sections 611.300 and 611.301 and an apparent dislocation of the nitrate exception from the listing of the MCL at Section 611.301.

Section 611.300(b) also includes four remaining state-only MCLs for cyanide, iron, manganese, and zinc. We recently deleted the fifth prior state-only MCL for copper in docket R92-3, in response to the federal Lead and Copper Rules. We now delete the state-only MCL for cyanide, effective when the new federally-derived MCL becomes effective on January 17, 1994. Although the

state-only MCL of Section 611.300(b) is the same as the new federal MCL for cyanide, which the Board codifies at Section 611.301, we believe that the existence of two MCLs would lead to confusion and possible inconsistency with the federal rules.

At past meetings of the regulatory work group, the Agency has raised the issue of whether the Board should delete the remaining state-only MCLs. The Board always responded that since those are rules adopted pursuant to Section 27 of the Act, and since they do not render the state regulations less stringent than or inconsistent with the federal regulations, we cannot delete them in an identical-in-substance proceeding pursuant to Sections 7.2 and 17.5. Therefore, if the Agency desires to delete the remaining state-only MCLs, in the absence of a federal action that would necessitate their deletion, we would invite the Agency to file a petition for regulatory amendment pursuant to Section 27 of the Act.

Section 611.300(c) contains a listing of the secondary MCL for fluoride. Corresponding 40 CFR 141.11(c) contains the MCL for fluoride and a reference to the secondary MCL at 40 CFR 143.3. The federal secondary MCLs are advisory only, and they are not enforceable. For this reason, the Board has deleted this language and replaced subsection (c) with our traditional "dummy" language to maintain structural parity with the corresponding federal provision.

In examining this section for the purposes of amendment in response to the federal Phase V amendments, we question the way we crafted subsection (d) in R88-26. This subsection allows non-CWSSs to exceed the nitrate MCL as provided by 40 CFR 141.11(d) and incorporates the federal provision by reference. There is no cross-reference to Section 611.301(b), where the MCL actually appears. 40 CFR 141.11(d) provides that the states may allow a non-CWS to exceed the MCL for nitrate, up to a level of 20 mg/l, if certain conditions are fulfilled:

1. the water must not be available for consumption by children under six years old,
2. there will be continuous public notice of the fact that the nitrate level exceeds the MCL and of the potential adverse health effects of elevated nitrate,
3. there will be annual notification to state and local public health officials of nitrate levels in excess of the MCL, and
4. no adverse health effects will result from the exceedance.

Aside from the issue of the separation of this exception

from the MCL, the Board has a few questions about this provision. Initially, we question whether we should even retain this provision, since this provision is federally-optional. Assuming it is a desirable provision, the Board wonders whether we should just set forth the federal language, like we have for nearly the entire text of the federal rules. The test is not particularly lengthy and highly technical, which are two factors that usually prompt an incorporation by reference. In fact, the federal use of "at the discretion of the state" in the incorporated test presents some potential difficulty. Further, by setting forth the test, we could spell out the need to notify the "Illinois Department of Public Health and the county and city departments of health, as appropriate, for the political subdivision(s) served by the supplier with the water that exceeds the nitrate MCL." A final issue relates to whether this prerogative of deciding to use the exception should rest solely with the supplier. In all other contexts where USEPA has rested a discretionary decision of this nature based on fixed criteria with the state, Illinois has used the mechanism of the SEP and the Agency makes the determination based on enunciated standards, subject to Board review. The Board believes that using the SEP mechanism for granting nitrate "exceptions" may be the proper tool to use.

Finally, the Board has amended subsection (e) for clarity and structural consistency with the rest of the rules without making any substantive change. We have removed the colon, using "for" in its place, and we substituted "MCLs" for "concentrations".

The Board requests public comments on our approach to Section 611.300. Specifically, we request comments on our deletion of the state-only MCL for cyanide, our deletion of the secondary MCL for fluoride, on whether we should codify the language of the federal nitrate exception in place of the incorporation by reference, and on whether we should use the SEP mechanism for granting nitrate "exceptions".

Section 611.301 derives from 40 CFR 141.62, amended by USEPA at 57 Fed. Reg. 31847 (July 17, 1992). For antimony, beryllium, cyanide, nickel, and thallium, USEPA added the MCLs at subsection (b) and BAT designations at subsection (c). The new MCLs apply to CWSS and NTNCWSS, and not to transient suppliers.

The Board makes minimal correction to the federal text in adapting their substance to the Illinois system. The Board has rendered the federal "chlorine" as "chlorination" and "ultraviolet" as "ultraviolet irradiation". We retained the BAT listing of "UV" despite the fact that USEPA designated it for none of the IOCs.

In adapting the new IOC MCLs, we add a statement to the

preamble of Section 611.301(b) that states that they become effective on January 17, 1994. In the first update that will clearly become effective only after that date has passed, the Board can delete this statement in keeping with our past practice.

**We request public comments on our approach to the new federal IOC MCLs. Specifically, we request comment on our correction of an obvious federal error in citing "ultraviolet" as BAT, yet keeping it listed despite the lack of any contaminant to which it applies under the federal rules.**

Section 611.310 derives from 40 CFR 141.12, amended by USEPA at 57 Fed. Reg. 31838 (July 17, 1993). USEPA deleted the existing MCL for endrin at subsection (a), since it adopted another new MCL for endrin at 40 CFR 141.61 (corresponding with Section 611.311), and marked subsection (a) as "reserved". Therefore, 40 CFR 141.12 contains only one remaining MCL, that for TTHMs, and it applies only to CWSs that add a disinfectant and which provide water to 10,000 or more persons. The MCLs for aldrin, DDT, dieldrin, heptachlor, heptachlor epoxide, and 2,4-D<sup>1</sup> and TTHM (to the extent it applies to all other suppliers) are state-only MCLs.

The Board follows through and deletes the prior federally-derived MCL for endrin. We correspondingly amend the Board Notes to subsections (a) and (b) to observe that they were formerly derived from 40 CFR 141.12(a) and (b) and note the federal deletion of the last federal MCL. This is an action overlooked in docket R91-3 as to subsection (b) when USEPA similarly removed the final MCL in 40 CFR 141.12(b) and marked the subsection "reserved".

The Board is also considering an additional action with regard to Section 611.310 that would shorten it. Since there is only one remaining federal MCL at 40 CFR 141.12(c) (for TTHMs) and the balance of this Section includes only state-only MCLs, it may be desirable to "collapse" the three subsections with their three Board Notes into a single listing with a single Board Note. We believe that this structure would more clearly impart the requirements to the regulated community--especially since there is no longer any need to maintain structural parity with the corresponding federal rule.

**The Board requests public comments on our approach to**

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<sup>1</sup> USEPA has adopted MCLs for heptachlor, heptachlor epoxide, and 2,4-D as part of the Phase II Rules. In R91-3, the Board retained the state-only MCLs for these contaminants because they are more stringent than the federal MCLs.

**Section 611.310.** We specifically request comments on the possible restructuring of this Section by the removal of all subsection designations and the consolidation of the substance of all the Board Notes into a single Board Note.

Section 611.311 derives from 40 CFR 141.61, amended by USEPA at 57 Fed. Reg. 31846 (July 17, 1992). USEPA added MCLs for the new Phase V three VOCs to subsection (a) and MCLs for the 15 new Phase V SOCs to subsection (c). (As previously discussed, the BAT designations for all the new Phase V organic contaminants are added to subsection (b).) The new MCLs become effective on January 17, 1994. The Board adopts the 18 new Phase V MCLs for organic contaminants without changing the federal text. We add a Board Note to both subsections to draw attention to the amended definition of "initial compliance period" at Section 611.101, in order to highlight the delay in monitoring for these contaminants.

In adapting the new VOC and SOC MCLs, we add statements to the preambles of Section 611.311(a) and (c) that states that they become effective on January 17, 1994. In the first update that will clearly become effective only after that date has passed, the Board can delete this statement in keeping with our past practice.

**We request public comments on our approach to the new federal VOC and SOC MCLs.**

Lead and Copper: Analytical Provisions--Section 611.359

Section 611.359 derives from 40 CFR 141.89. This Section sets forth the analytical requirements for the lead and copper program. USEPA made a corrective amendment to this provision at 57 Fed. Reg. 31847, on July 17, 1991. The Board made the necessary revision in adopting Section 611.359 in docket R92-3, so no further action is necessary in this docket.

Reporting and Public Notice: MCL Violations--Section 611.Appendix A

Section 611.Appendix A derives from 40 CFR 141.32, amended by USEPA at 57 Fed. Reg. 31843 (July 17, 1992). The federal rule sets forth the contaminant-by-contaminant mandatory health effects information that suppliers must submit to the public when they violate an MCL. The federal amendments added notices for each of the new Phase V contaminants: five IOCs (antimony, beryllium, cyanide, nickel, and thallium), three VOCs (dichloromethane, 1,2,4-trichlorobenzene, and 1,1,2-trichloroethane), and 18 SOCs (benzo[a]pyrene, dalapon, di(2-ethylhexyl)adipate, di(2-ethylhexyl)phthalate, dinoseb, diquat, endothall, endrin, glyphosate, hexachlorobenzene, hexachlorocyclopentadiene, oxamyl, picloram, simazine, and 2,3,7,8-TCDD (dioxin)). The Board adopts

the federal language without material deviation. We use "USEPA" for clarity in each notice and render "ground water" as "groundwater" wherever it appears throughout the Appendix, which is the Board's usual convention. We update the CFR reference in the Board Note.

Federal Effective Dates--Section 611.Table Z

Section 611.Table Z derives from no particular federal provision. Rather, the Board believes that setting forth the federal effective dates for the various federal MCLs would prove useful to the regulated community. We added this as Table D in R91-3 for reference and renumbered it to Table Z in R92-03. We add the effective dates for the federal Phase V amendments. The Board has separated the Phase V IOC, Phase V VOC, and Phase V SOC entries.

AGENCY OR BOARD ACTION?

Section 7.2(a)(5) of the Act requires the Board to specify which decisions USEPA will retain. In addition, the Board is to specify which State agency is to make decisions, based on the general division of functions within the Act and other Illinois statutes.

In situations in which the Board has determined that USEPA will retain decision-making authority, the Board has replaced "Regional Administrator" with USEPA, so as to avoid specifying which office within USEPA is to make a decision.

In a few instances in identical in substance rules, decisions are not appropriate for Agency action pursuant to a permit application. Among the considerations in determining the general division of authority between the Agency and the Board are:

1. Is the person making the decision applying a Board regulation, or taking action contrary to ("waiving") a Board regulation? It generally takes some form of Board action to "waive" a Board regulation.
2. Is there a clear standard for action such that the Board can give meaningful review to an Agency decision?
3. Does the action result in exemption from the permit requirement itself? If so, Board action is generally required.
4. Does the decision amount to "determining, defining or implementing environmental control standards" within the meaning of Section 5(b) of the Act. If so, it must be made by the Board.

There are four common classes of Board decision: variance, adjusted standard, site specific rulemaking, and enforcement. The first three are methods by which a regulation can be temporarily postponed (variance) or adjusted to meet specific situations (adjusted standard or site specific rulemaking). Note that there often are differences in the nomenclature for these decisions between the USEPA and Board regulations.

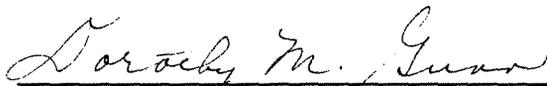
#### EDITORIAL CONVENTIONS

As a final note, the federal rules have been edited to establish a uniform usage throughout the Board's regulations. For example, with respect to "shall", "will", and "may" - "shall" is used when the subject of a sentence has to do something. "Must" is used when someone has to do something, but that someone is not the subject of the sentence. "Will" is used when the Board obliges itself to do something. "May" is used when choice of a provision is optional. "Or" is used rather than "and/or", and denotes "one or both". "Either"... "or" denotes "one but not both". "And" denotes "both".

#### CONCLUSION

This proposed opinion supports the Board's proposed order of this same day. The Board will promptly submit these proposed amendments to the Secretary of State for publication in the Illinois Register.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above proposed opinion was adopted on the 5<sup>th</sup> day of May, 1993, by a vote of 5-0.

  
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 Dorothy M. Gunn, Clerk  
 Illinois Pollution Control Board