ILLINOIS POLLUTION CONTROL BOARD July 20, 2006

| IN THE MATTER OF: |) | |
|-----------------------------------------|---|-----------------------------------|
| |) | |
| SDWA UPDATE, USEPA AMENDMENTS |) | R06-15 |
| (July 1, 2005 though December 31, 2005) |) | (Identical-in-Substance |
| | ĺ | Rulemaking - Public Water Supply) |

Proposed Rule. Proposal for Public Comment.

OPINION AND ORDER OF THE BOARD (by T.E. Johnson):

The Board today proposes amendments to the Illinois regulations that are "identical in substance" to drinking water regulations adopted by the United States Environmental Protection Agency (USEPA). The USEPA rules implement Sections 1412(b), 1414(c), 1417(a), and 1445(a) of the federal Safe Drinking Water Act (SDWA) (42 U.S.C. §§ 300g-1(a), 300g-3(c), 300g-6(a), and 300j-4(a) (2002)).

This docket includes federal SDWA amendments that USEPA adopted in the period July 1, 2005 through December 31, 2005. The amendments incorporate into the Illinois regulations the federal Cross-Media Electronic Reporting Rule (CROMERR), which establishes minimum federal standards for the filing and acceptance of electronic documents.

Sections 7.2 and 17.5 of the Environmental Protection Act (Act) (415 ILCS 5/7.2 and 17.5 (2004)) provide for quick adoption by the Board of regulations that are identical in substance to federal regulations that USEPA adopts to implement Sections 1412(b), 1414(c), 1417(a), and 1445(a) of the federal SDWA. Section 17.5 also provides that Title VII of the Act and Section 5 of the Administrative Procedure Act (APA) (5 ILCS 100/5-35 and 5-40 (2004)) do not apply to the Board's adoption of identical-in-substance regulations. The federal SDWA regulations are found at 40 C.F.R. 141 through 143.

The Board will cause the proposed amendments to be published in the *Illinois Register* and will hold the docket open to receive public comments for 45 days after the date of publication. The Board will then adopt and file the final rules, taking into account the public comments received. The rules will be adopted and filed no later than October 13, 2006, assuming no complications arise to require Board extension of the deadline pursuant to Section 7.2(b) of the Act (415 ILCS 5/7.2(b) (2004)).

FEDERAL ACTIONS CONSIDERED IN THIS RULEMAKING

This docket includes federal SDWA amendments that USEPA adopted in the period July 1, 2005 through December 31, 2005. USEPA adopted a single set of amendments during that period that affected the SDWA primary drinking water regulations. The following briefly summarizes that federal action that is considered in this rulemaking.

October 13, 2005 (70 Fed. Reg. 59848)

USEPA adopted new requirements for the filing and receipt of required documents as electronic documents. The filings included are all documents whose filing is provided by the primary drinking water regulations.

No Later SDWA (Drinking Water) Amendments of Interest

The Board engages in ongoing monitoring of federal actions. As of the date of this opinion and accompanying order, the Board has identified no related USEPA actions since December 31, 2005, that further amend the SDWA rules in a way that affects the present amendments.¹

When the Board observes an action outside the nominal timeframe of a docket that requires expedited consideration, the Board will expedite consideration of those amendments in the pending docket. Federal actions that could warrant expedited consideration include those that directly affect the amendments involved in this docket, those for which compelling reasons would warrant consideration as soon as possible, and those for which the Board has received a request for expedited consideration.

If the Board identifies any federal action that fulfills these criteria prior to final action on the present amendments, the Board may include those amendments in the present docket R06-15 upon final adoption.

No Other Federal Actions Having a Direct Impact on the Illinois SDWA (Drinking Water) Regulations

In addition to the amendments to the federal SDWA regulations, amendments to certain other federal regulations occasionally have an effect on the Illinois drinking water rules. Most notably, 35 Ill. Adm. Code 611.102 includes the incorporation of Appendices B and C of 40 C.F.R. 136 by reference. These are federal Clean Water Act methods for analysis of contaminants in water.

As of the date of this proposal for public comment, the Board has found no amendments to the pertinent segments of 40 C.F.R. 136 in the current update period. No Board action will be required at this time to update the version of 40 C.F.R. 136 incorporated by reference in to include the amendments.

¹ USEPA adopted major new rules on January 4, 2006 and January 5, 2006, and later corrected them, but those rules do not relate to the amendments of October 13, 2005, which are the sole subject of this docket.

TIMETABLE FOR COMPLETION OF THIS RULEMAKING

Under Section 7.2 of the Act (415 ILCS 5/7.2(b) (2004)), the Board must complete this rulemaking within one year of the date of the earliest set of federal amendments considered in this docket. USEPA adopted the earliest federal amendments that required Board attention on October 13, 2005, so that the deadline for Board adoption of these amendments is October 13, 2006. The Board scheduled adoption of this proposal for public comment for the Board meeting of July 20, 2006, to allow for timely adoption of the rule around October 5, 2006. This would have allowed filing of these amendments before the October 13, 2006 deadline.

Considering the proposal of these amendments on this date, the Board presently projects the following will occur in the progress towards completion of these amendments:

| Nominal Due date: | October 13, 2006 |
|------------------------------------------------------|--------------------|
| Date of Board vote to propose amendments: | July 20, 2006 |
| Submission for <i>Illinois Register</i> publication: | July 31, 2006 |
| Probable <i>Illinois Register</i> publication dates: | August 11, 2006 |
| End of 45-day public comment period: | September 25, 2006 |
| Date of Board vote to adopt amendments: | October 5, 2006 |
| Probable filing and effective date: | October 9, 2006 |
| Probable <i>Illinois Register</i> publication date: | October 20, 2006 |

PUBLIC COMMENTS

The Board will receive public comments on this proposal for 45 days following its publication in the *Illinois Register*. After that time, the Board will immediately consider adoption of the amendments, making any necessary changes made evident through the public comments. The Board expects to file any adopted rules with the Secretary of State immediately after adoption, but no later than October 13, 2006.

DISCUSSION

The following discussion begins with a description of the amendments undertaken in direct response to the federal action involved in this proceeding. The discussion closes with a description of the miscellaneous amendments that are not directly derived from the federal action, but which the Board routinely includes in these update dockets as necessary.

Discussion of the Federal Action

Cross-Media Electronic Reporting Rule--Section 611.105

The USEPA action of October 13, 2005 (70 Fed. Reg. 59848) established the CROMERR. The CROMERR sets standards for the filing of documents in various federal

program areas in an electronic format.² While the CROMERR does not require the filing of documents in an electronic format, it does impose minimum requirements on documents that are filed in such a format and on the electronic document receiving systems used to receive them. The CROMERR imposes requirements on electronic filings submitted to USEPA and on USEPA's Central Data Exchange (CDX) that receives them, as well as on any electronic document filings submitted to the states and any systems used by the states to receive those filings. USEPA stated as follows in its introductory discussion of the CROMERR:

[US]EPA is establishing the framework by which it will accept electronic reports from regulated entities in satisfaction of certain document submission requirements in [US]EPA's regulations. [US]EPA will provide public notice when [it] is ready to receive direct submissions of certain documents from regulated entities in electronic form consistent with this rulemaking via an [US]EPA electronic document receiving system. This rule does not mandate that regulated entities utilize electronic methods to submit documents in lieu of paper-based submissions. . . .

States . . . will be able to seek [US]EPA approval to accept electronic documents to satisfy reporting requirements under environmental programs that [US]EPA has delegated, authorized, or approved them to administer. This rule includes performance standards against which a state's . . . electronic document receiving system will be evaluated before [US]EPA will approve changes to the delegated, authorized, or approved program to provide electronic reporting, and establishes a streamlined process that states, tribes, and local governments can use to seek and obtain such approvals. 70 Fed. Reg. 59848 (Oct. 13, 2005) (summary).

Only those filings and electronic document receiving systems approved in advance by USEPA qualify under the CROMERR. Any state system used to receive electronic documents must obtain USEPA approval before the state may use it, except that a state may continue to use an existing electronic document receiving system³ until October 15, 2007, pending USEPA review and approval. USEPA is clear that any filing of documents in an electronic format is voluntary, and not compulsory, and the CROMERR creates no right or privilege to file any document in an electronic format. *See* 59 Fed. Reg. at 59853.

² The federally-authorized programs to which the CROMERR applies are all state-implemented aspects of the Clean Air Act (all conventional and hazardous air pollutant aspects), Clean Water Act (National Pollutant Discharge Elimination System, wastewater pretreatment, and sludge management aspects), Safe Drinking Water Act (national primary drinking water standards and underground injection control aspects), Resource Conservation and Recovery Act (hazardous waste, municipal solid waste landfill, and underground storage tank aspects), and the Lead-Based Paint Exposure Abatement Act programs.

³ One that was in existence on October 13, 2005.

The Board does not review the substance and merits of the underlying federal action in an identical-in-substance proceeding, except to the extent that it may be necessary to do so in order to incorporate the federal provisions into the Illinois regulations. Persons interested in the details of the federal amendments should consult the October 13, 2005 *Federal Register* notice. The only aspects of the present amendments that warrant further discussion here relate to the general considerations of the Board in assembling a rule to insert into the Illinois SDWA primary drinking water regulations.

The CROMERR appears in a new part of the USEPA regulations, 40 C.F.R. 3. The structure of new 40 C.F.R. 3 includes three subparts:⁴

Subpart A: General provisions (statements of scope and applicability, definitions of terms, and statements of the legal effect of filing a document in an electronic format),

Subpart B: Provisions relative to filing a document into a federal electronic document receiving system, and

Subpart D: Provisions relative to filing a document into an authorized electronic document receiving system and for USEPA authorization of a state system.

The CROMERR is drafted in the "user-friendly" question-and-answer format recently favored by USEPA.

The object of the CROMERR is to provide for filing of documents in an electronic format and to assure that documents filed in such a format have the same probative effect as a signed paper document. USEPA stated, "[I]t is essential to ensure that electronic reports can play the same role as their paper counterparts in providing evidence of what was reported and to what identified individuals certified with respect to the report." 59 Fed. Reg. at 59850. Thus, USEPA's emphasis is on assuring the authenticity, dependability, and integrity of documents filed in an electronic format. To this end, USEPA the CROMERR imposes requirements on six aspects of any electronic document receiving system used by a state: (1) system security; (2) the electronic signature method; (3) registration of persons submitting electronic documents; (4) the signature and certification scenario; (5) the generation of a transaction record; and (6) system archives. *See* 59 Fed. Reg. at 59855. USEPA listed its bases for evaluation of a state electronic document receiving system as follows (*see* 59 Fed. Reg. at 59867-73):

1. The timeliness of data generation by the system;

⁴ Subpart C is marked "reserved." It is apparent that at some future time, USEPA may amend 40 C.F.R. 3 to include provisions relating to electronic reporting. *See* 59 Fed. Reg. at 59848 (summary).

- 2. The ability of the system to retain and generate a copy of the record on demand that fulfills all of the following requirements:
 - a. The copy must be true and accurate;
 - b. It must include all electronic signatures;
 - c. It must include the date and time of receipt; and
 - d. It must be viewable in a human-readable format that indicates the meaning of each information item or data element;
- 3. The ability to establish that the electronic document was not altered in transmission or at any time after receipt without detection;
- 4. The provision of evidence that the person who submitted the document did so with a way of knowing or confirming that the submission occurred;
- 5. The availability of the copy of record for timely review and repudiation by the person or entity that submitted it;
- 6. The ability to verify the validity of each electronic signature at the time of signing, which requires the following:
 - a. That the signature is created using a device "owned" by the person using it:
 - b. That the device has not been compromised, or that any compromise will be detected and the filing rejected in the event of a compromise; and
 - c. That the person affixing the signature to the document is one who is authorized to do so:
- 7. The ability to bind the signature to the electronic document so that the document cannot be altered without detection once signed;
- 8. Where the person signing the document must certify the truth or accuracy of the document, the ability of the system to provide evidence the following:
 - a. That the signatory had the opportunity to review the document before signing and submitting it;
 - b. That the signatory fully understood the significance of his or her signing and the criminal penalties for a false certification before signing and submitting it; and
 - c. That the signatory had the opportunity to detect and repudiate any spurious submissions made in his or her name through unauthorized access to the signature device or to the electronic document receiving system; and

- 9. The ability of the system to provide the following evidence with regard to the person signing and submitting an electronic document:
 - a. That the person signing and submitting an electronic document has executed an electronic signature agreement or subscriber agreement for the device used to sign the document; and
 - b. That the person signing and submitting an electronic document is in fact that person who has authority to use the device used to sign the document, as follows:
 - i. The identity of the signature device owner must be verified before the system receives any signature created by the device;
 - ii. The verification must be made "by the attestation of disinterested individuals"; and
 - iii. The verification must be "based on information or objects of independent origin, at least one item of which is not subject to change without government action or authorization."

The Board has incorporated the new federal CROMERR into a new provision at 35 III. Adm. Code 611.105 of the drinking water regulations. In drafting the identical-in-substance rules, the Board has taken a minimalist approach. Section 611.105(a) makes it clear that electronic filing is an option, and not a requirement. The rules state that notice of further USEPA action is necessary before the rules can be used for electronic filing. The rules repeat the federal applicability language making clear that the only filings covered by the rules are electronic transmittals, and not documents submitted by facsimile or magnetic or optical media, such as diskette, compact disc, digital videodisc, or tape. Document transfers between USEPA and the states under administrative arrangements are also excluded.

The Board has incorporated by reference other provisions, including the definitions of 40 C.F.R. 3.3 and the 40 C.F.R. 3.10 procedures for electronic filing directly with USEPA into its CDX. *See* Section 611.105(b) and (c) (incorporating 40 C.F.R. 3.3 and 3.10 by reference). The Board is unsure whether there are any Illinois entities currently filing documents directly with USEPA, but has included those provisions to avoid any confusion.

As to rules for filing documents with the Board or the Agency, the rules repeat at Section 611.105(d)(1) that it is entirely up to the Board or the Agency whether to set up procedures for electronic filing under the Sections. Federal 40 C.F.R. 3.10 sets forth the basic USEPA electronic document filing requirements: (1) the electronic document must be filed in a USEPA-approved electronic document receiving system; and (2) the electronic document must bear required electronic signatures. The rules provide at Section 611.105(d)(1) that any such procedures must meet the requirements of 40 C.F.R. 3.2 and 3.2000, as incorporated by reference, and must receive USEPA approval before they can be used. The Board has included a provision at Section 611.105(a)(4) that requires the Board or Agency to publish notice of USEPA approval of any such electronic filling rules in the *Illinois Register*. The Board has also included in the rule language identical in substance to federal provisions in Section 611.105(e) that make it clear that electronic fillings will be treated in the same way as are properly signed paper filings.

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The Board has added a brief statement as a preamble to Section 611.102. The statement provides that the filing of any document pursuant to any provision of the Part as an electronic document is subject to the Section. The intent is to immediately state the subject matter of the Section and subject electronic filings to its provisions.

In proposing these rules, the Board underscores that adoption of Section 611.105 or any procedures to implement the Section is not intended to limit authority the Board or Agency may have under the Act to accept electronic filings. For some time, the Board has been conducting a pilot program to develop sufficient information and experience to propose workable rules, and has reserved a procedural rule docket. Amendments to the Board's Procedural Rules to Accommodate Electronic Filing: 35 Ill. Adm. Code 101-130, R04-8 (Aug. 21, 2003). But, the Board presently has no projected date for issuance of a proposal, given the Board's heavy rulemaking docket for calendar year 2006.

The Board requests public comment on the incorporation of the October 13, 2005 federal Cross-Media Electronic Reporting Rule.

General Revisions and Deviations from the Federal Text

In incorporating the federal rules into the Illinois system, some deviation from the federal text is unavoidable. This deviation arises primarily through differences between the federal and state regulatory structure and systems. Some deviation also arises through errors in and problems with the federal text itself. The Board conforms the federal text to the Illinois rules and regulatory scheme and corrects errors found in the text in the course of these routine update rulemakings.

In addition to the amendments derived from federal amendments, the Board often finds it necessary to alter the text of various passages of the existing rules as provisions are opened for update in response to USEPA actions. This involves correcting deficiencies, clarifying provisions, and making other changes that are necessary to establish a clear set of rules that closely parallel the corresponding federal requirements within the codification scheme of the *Illinois Administrative Code*.

⁵ In the meantime, the Board currently accepts electronic document submissions into the Clerk's Office On-Line (COOL) system. The Board requires the use of the State of Illinois Digital Signature Project, administered by the Office of the Secretary of State, for filing electronic documents pursuant to the Electronic Commerce Security Act [5 ILCS 175]. The user must obtain a free subscription to that system from the State Registration Authority (at https://autora01.cmcf.state.il.us/ or www.illinois.gov/pki/pki_subscriber.cfm). This may or may not satisfy USEPA requirements for electronic filing, but the Board presently has insufficient information to hazard a guess whether it does or does not.

The Board updates the citations to the *Code of Federal Regulations* to the most recent version available. As discussed above, the most recent versions of the *Code of Federal Regulations* available to the Board is the July 1, 2005 edition for USEPA regulations (Title 40). Thus, the Board has updated all citations to Title 40 to the 2005 edition of the *Code of Federal Regulations*, adding references to later amendments using their appropriate *Federal Register* citation, where necessary.

The Board substituted "or" for "/" in most instances where this appeared in the federal base text, using "and" where more appropriate. The Board further used this opportunity to make a number of corrections to punctuation, grammar, spelling, and cross-reference format throughout the opened text. We changed "who" to "that" and "he" or "she" to "it," where the person to which the regulation referred was not necessarily a natural person, or to "he or she," where a natural person was evident; changed "which" to "that" for restrictive relative clauses; substituted "must" for "shall"; capitalized the section headings and corrected their format where necessary; and corrected punctuation within sentences.

In addition, 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," "must" is used when an action is required by the rule, without regard to whether the action is required of the subject of the sentence or not. "Shall" is no longer used, since it is not used in everyday language. Thus, where a federal rule uses "shall," the Board substitutes "must." This is a break from our former practice where "shall" was used when the subject of a sentence has a duty to do something. "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."

The Joint Committee on Administrative Rules has requested that the Board refer to the United States Environmental Protection Agency in the same manner throughout all of our bodies of regulations—*i.e.*, air, water, drinking water, RCRA Subtitle D (municipal solid waste landfill), RCRA Subtitle C (hazardous waste), underground injection control (UIC), etc. The Board has decided to refer to the United States Environmental Protection Agency as "USEPA." The Board will continue this conversion in future rulemakings as additional sections become open to amendment. The Board will further convert "EPA" used in federal text to "USEPA," where USEPA is clearly intended.

The Board has assembled tables to aid in the location of these alterations and to briefly outline their intended purpose. Table 1 sets forth the miscellaneous deviations from the federal text, and Table 2 itemizes the corrections to the pre-amended base text of the rules in detail. Table 1 begins on page 11 of this opinion, and Table 2 begins on page 13. There is no further discussion of most of the deviations and revisions elsewhere in this opinion.

Discussion of Corrective Amendments

The Board has traditionally used the occasion of these identical-in-substance updates to correct segments of the base text of the Illinois regulations. These corrections are non-

substantive in effect. The Board is including a significant number of non-substantive corrections in this docket.

When a necessary minor correction comes to the attention of the Board, Board staff makes a note of the correction, and set it aside until the next opportunity to make the correction. The next opportunity generally presents itself when the section involved is next opened for amendment as a result of amendments to the corresponding federal text. The Board has cataloged a small number of changes since the last SDWA update docket, <u>SDWA Update</u>, <u>USEPA Regulations (January 1, 2004 through June 30, 2004, August 25, 2004)</u>, R05-6 (Jan. 20, 2005).

The Board will not discuss the bulk of the particular corrective amendments in this segment of this discussion. Only one warrants specific discussion. That discussion follows this paragraph. The corrections are itemized in the Table 1, which begins on page 11 of this opinion.

The single correction that warrants specific discussion relates to language added to the rules at the request of USEPA, which the Board now seeks to delete. Section 611.380(a)(1) corresponds with 40 C.F.R. 141.130(a)(1). When initially adopting Section 611.380(a)(1), the Board added language at the suggestion of USEPA. See SDWA Update, USEPA Regulations (July 1, 1998 through December 31, 1998), R99-12 (July 22, 1999). The Board added "or which provides water that contains a chemical disinfectant" on the recommendation of USEPA. On June 11, 1999, USEPA submitted to the Board a public comment with an attached copy of a draft direct final rule. USEPA intended to publish the direct final rule to correct inadvertent errors in its December 16, 1998 Disinfectant and Disinfection Byproducts Rule (63 Fed. Reg. 69390) and Interim Enhanced Surface Water Treatment Rule (63 Fed. Reg. 69478). See public comment number 3 in R99-12 (R99-12, PC 3) at p. 19.

USEPA has never published and adopted the draft direct final rule submitted to the Board in R99-12, PC 3. The existing text of 40 C.F.R. 130(a)(1) still does not include the phrase added by the Board at the suggestion of USEPA. *See* 40 C.F.R. 141.130(a)(1) (2005). USEPA has further not added the language in either of its more recent January 4, 2006 Stage 2 Disinfectants and Disinfection Byproducts Rule (71 Fed. Reg. 388) or January 5, 2006 Long Term 2 Enhanced Surface Water Treatment Rule (71 Fed. Reg. 654).

The Board added the phrase "or which provides water that contains a chemical disinfectant" on the representation by USEPA that this is a correction that the Board should include because USEPA would itself shortly incorporate the correction. USEPA has not incorporated the draft correction into the federal rules in the intervening seven years. The Board will use this opportunity to remove the previously added language.

⁶ These two actions will be the subject of the future SDWA update docket R07-2. The Board presently intends to prepare a proposal for public comment involving those actions by October 5, 2006.

All corrective amendments are itemized in the Table 1, which begins on page 11 of this opinion. The Board requests that the Agency, JCAR, and the regulated community review the table and the text of the corrections. The Board requests comment on the corrections. The Board also asks for the assistance of the Agency, JCAR, and the regulated community in the process of spotting and correcting errors or omissions in the rules. The Board requests that interested persons submit suggestions for the correction of any errors of which they become aware. The Board will either include the corrections in this docket or catalog them for future revisions, if the suggestions relate to segments of the text that are not already involved in this proceeding and the Board cannot add them.

Tabulation of Miscellaneous Housekeeping Amendments

The tables below list numerous corrections and amendments that are not based on current federal amendments. The first table (beginning immediately below) includes deviations made in this Proposal for Public Comment from the verbatim text of the federal amendments. The second table (beginning immediately after Table 1 below) contains corrections and clarifications that the Board made in the base text involved in this proposal. The amendments listed in this second table are not directly derived from the current federal amendments. Some of the entries in these tables are discussed further in appropriate segments of the general discussion beginning at page 3 of this opinion.

Table 1: Deviations from the Text of the Federal Amendments

| Illinois Section | 40 C.F.R. Section | Revision(s) |
|------------------|-------------------|--------------------------------------------------------------------------------------------------|
| 611.105 | 3, 142.10(g) | Incorporated the federal requirements generally for the purposes of the SDWA program |
| 611.105(a) | 3.1(a) | Loosely and generally incorporated the federal requirements for the purposes of the SDWA program |
| 611.105(a)(1) | 3.2 and 3.1000(a) | Loosely and generally incorporated the federal requirements for the purposes of the SDWA program |
| 611.105(a)(2)(A) | 3.2(a) and 3.10 | Loosely and generally incorporated the federal requirements for the purposes of the SDWA program |
| 611.105(a)(2)(B) | 3.2(b) and 3.1000 | Loosely and generally incorporated the federal requirements for the purposes of the SDWA program |
| 611.105(a)(3) | 3.1(b) | Added "any of the following documents in subsection (a)(1) of this Section" |
| 611.105(a)(3)(A) | 3.1(b)(1) | Changed "documents" to singular "any document"; omitted the ending conjunction "or" |

| 611.105(a)(3)(B) | 3.1(b)(2) | Changed "documents" to singular "any document"; changed the ending period to a semicolon and added the ending conjunction "or" |
|-----------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 611.105(a)(3)(C) | 3.1(c) | Changed "EPA" to "USEPA"; changed the conjunction "and" to a comma after "USEPA"; changed "states, tribes, or local governments" to singular "any state, or any local government"; changed "states, tribes, or local governments" to "the parties to the transfer" |
| 611.105(a)(4) | 3.20 | Loosely and generally incorporated the federal requirements for the purposes of the SDWA program |
| 611.105(a) Board note | | Added a reference to the federal source of the material |
| 611.105(b) | 3.3 | Incorporated the federal definitions by reference |
| 611.105(c) | 3.10 | Loosely and generally incorporated the federal requirements for the purposes of the SDWA program |
| 611.105(d) | 3.2(b) and (c) and 3.1000(a) | Loosely and generally incorporated the federal requirements for the purposes of the SDWA program |
| 611.105(d)(1) | 3.2(b) and (c) and 3.1000(a) | Loosely and generally incorporated the federal requirements for the purposes of the SDWA program |
| 611.105(d)(2) | 3.2(b) | Loosely and generally incorporated the federal requirements for the purposes of the SDWA program |
| 611.105(e) | | Added the topical subsection statement "effects of submission of an electronic document" |
| 611.105(e)(2) | 3.4(b) and 3.2000(c)(1) | Changed "a person is subject to if the person fails to comply with the applicable provisions for electronic reporting" to "if a person who submits fails to comply with the requirements of this Section, that person is subject to"; changed "any appropriate civil, criminal penalties or other remedies under state, tribe, or local law" to "the penalties prescribed"; changed "a requirement" to "the requirement that the electronic document was intended to satisfy" |

| 611.105(e)(3) | 3.4(c) and 3.2000(c)(2) | Changed "an electronic document submitted to satisfy a requirement" to "a document submitted as an electronic document to satisfy a reporting requirement"; changed "signatory" to "signer" (twice); omitted the unnecessary comma from before "to the same extent" |
|-----------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 611.105(e) Board note | | Added a reference to the federal source of the material |
| 611.105(f) | 3.1(c) second sentence | Changed "this part creates no" to "nothing in this Section or in any provisions adopted will create any"; changed "data electronically and does not obligate accept electronic documents" to "any document as an electronic document" |
| 611.105 Board note | | Added a reference to the federal source of the material |

Table2: Board Housekeeping Amendments

| Section | Source | Revision(s) |
|----------------------|--------|----------------------------------------------------------------|
| 611.102(b) "Advanced | Board | Updated the citation to the <i>Code of Federal Regulations</i> |
| Polymer Systems" | | to the most recent edition |
| 611.102(b) "Bran & | Board | Updated the citation to the <i>Code of Federal Regulations</i> |
| Luebbe" | | to the most recent edition (twice) |
| 611.102(b) "ERDA | Board | Updated the citation to the <i>Code of Federal Regulations</i> |
| Health and Safety | | to the most recent edition (twice) |
| Laboratory" | | |
| 611.102(b) "NTIS," | Board | Updated the citation to the <i>Code of Federal Regulations</i> |
| "Technical Notes on | | to the most recent edition (twice) |
| Drinking Water | | |
| Methods" Board note | | |
| 611.102(c) "40 CFR | Board | Added the incorporation, including the <i>Federal</i> |
| 3.2" | | Register citation adopting the provision |
| 611.102(c) "40 CFR | Board | Added the incorporation, including the <i>Federal</i> |
| 3.3" | | Register citation adopting the provision |
| 611.102(c) "40 CFR | Board | Added the incorporation, including the <i>Federal</i> |
| 3.10" | | Register citation adopting the provision |
| 611.102(c) "40 CFR | Board | Added the incorporation, including the <i>Federal</i> |
| 3.2000" | | Register citation adopting the provision |
| 611.102(c) "Appendix | Board | Changed "40 CFR 136, Appendices B and C" to |
| B to 40 CFR 136" | | "Appendix B to 40 CFR 136"; updated the citation to |
| | | the Code of Federal Regulations to the most recent |
| | | edition |

| Section | Source | Revision(s) |
|------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 611.111 Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition (twice); moved the comma inside the closing quotation marks after "Sources" |
| 611.112(e)(2) | Board | Moved the ending period inside the closing quotation marks after "water"; changed numeric "9" to written "nine" |
| 611.112(g)(1) | Board | Changed numeric "7" to written "seven" |
| 611.112(g)(2) | Board | Moved the comma inside the closing quotation marks after "Sources" |
| 611.112(h) | Board | Moved the ending period inside the closing quotation marks after "water" |
| 611.112 Board | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition (twice); moved the comma inside the closing quotation marks after "Sources" |
| 611.359(a)(1)(C) | Board | Changed "40 CFR 136, Appendix B" to "Appendix B to 40 CFR 136"; updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |
| 611.359(a) Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |
| 611.359(b) Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |
| 611.359(c) Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |
| 611.380(a)(1) | Board | Removed "or which provides water that contains a chemical disinfectant" from after "treatment process" |
| 611.380 Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |
| 611.609(a)(3) Board note | Board | Changed "40 CFR 136, Appendix B" to "Appendix B to 40 CFR 136" |
| 611.609 Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |
| 611.646(a) "detection limit" Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |
| 611.646(a) "method detection limit" Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition; changed "40 CFR 136, Appendix B" to "Appendix B to 40 CFR 136" |
| 611.646(c) Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |
| 611.646(g) Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |
| 611.646(j) Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition (twice) |
| 611.646(q)(1)(E) | Board | Changed "40 CFR 136, Appendix B" to "Appendix B to 40 CFR 136" |

| Section | Source | Revision(s) |
|--------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 611.646(q)(2)(C) | Board | Changed "40 CFR 136, Appendix B" to "Appendix B to 40 CFR 136" |
| 611.646(t)(1) | Board | Changed "40 CFR 136, Appendix B" to "Appendix B to 40 CFR 136" |
| 611.646 Board note | Board | Updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |
| 611.Appendix D | Board | Moved the comma inside the closing quotation marks after "Techniques"; updated the citation to the <i>Code of Federal Regulations</i> to the most recent edition |

ORDER

The Board proposes the following amendments for public comment:

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

PART 611 PRIMARY DRINKING WATER STANDARDS

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AUTHORITY: Implementing Sections 7.2, 17, and 17.5 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/7.2, 17, 17.5, and 27].

SOURCE: Adopted in R88-26 at 14 Ill. Reg. 16517, effective September 20, 1990; amended in R90-21 at 14 Ill. Reg. 20448, effective December 11, 1990; amended in R90-13 at 15 Ill. Reg. 1562, effective January 22, 1991; amended in R91-3 at 16 Ill. Reg. 19010, effective December 1, 1992; amended in R92-3 at 17 Ill. Reg. 7796, effective May 18, 1993; amended in R93-1 at 17 Ill. Reg. 12650, effective July 23, 1993; amended in R94-4 at 18 III. Reg. 12291, effective July 28, 1994; amended in R94-23 at 19 Ill. Reg. 8613, effective June 20, 1995; amended in R95-17 at 20 Ill. Reg. 14493, effective October 22, 1996; amended in R98-2 at 22 Ill. Reg. 5020, effective March 5, 1998; amended in R99-6 at 23 Ill. Reg. 2756, effective February 17, 1999; amended in R99-12 at 23 Ill. Reg. 10348, effective August 11, 1999; amended in R00-8 at 23 Ill. Reg. 14715, effective December 8, 1999; amended in R00-10 at 24 Ill. Reg. 14226, effective September 11, 2000; amended in R01-7 at 25 Ill. Reg. 1329, effective January 11, 2001; amended in R01-20 at 25 Ill. Reg. 13611, effective October 9, 2001; amended in R02-5 at 26 Ill. Reg. 3522, effective February 22, 2002; amended in R03-4 at 27 Ill. Reg. 1183, effective January 10, 2003; amended in R03-15 at 27 III. Reg. 16447, effective October 10, 2003; amended in R04-3 at 28 III. Reg. 5269, effective March 10, 2004; amended in R04-13 at 28 III. Reg. 12666, effective August 26, 2004; amended in R05-6 at 29 Ill. Reg. 2287, effective January 28, 2005; amended in R06-15 at 30 Ill. Reg. ______, effective ______.

SUBPART A: GENERAL

Section 611.102 Incorporations by Reference

a) Abbreviations and short-name listing of references. The following names and abbreviated names, presented in alphabetical order, are used in this Part to refer to materials incorporated by reference:

"Amco-AEPA-1 Polymer" is available from Advanced Polymer Systems.

"ASTM Method" means a method published by and available from the American Society for Testing and Materials (ASTM).

"Colisure Test" means "Colisure Presence/Absence Test for Detection and Identification of Coliform Bacteria and Escherichia Coli in Drinking Water," available from Millipore Corporation, Technical Services Department.

"Colitag® Test" means "Colitag® Product as a Test for Detection and

Identification of Coliforms and E. coli Bacteria in Drinking Water and Source Water as Required in National Primary Drinking Water Regulations," available from CPI International.

"Dioxin and Furan Method 1613" means "Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope-Dilution HRGC/HRMS," available from NTIS.

"GLI Method 2" means GLI Method 2, "Turbidity," Nov. 2, 1992, available from Great Lakes Instruments, Inc.

"Hach FilterTrak Method 10133" means "Determination of Turbidity by Laser Nephelometry," available from Hach Co.

"HASL Procedure Manual" means HASL Procedure Manual, HASL 300, available from ERDA Health and Safety Laboratory.

"Kelada 01" means "Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, And Thiocyanate," Revision 1.2, August 2001, EPA # 821–B–01–009, available from the National Technical Information Service (NTIS).

"Membrane Filter Technique using Chromocult Doliform Agar" means "Chromocult Coliform Agar Presence/Absence Membrane Filter Test Method for Detection and Identification of Coliform Bacteria and Escherichia coli in Finished Waters," available from EMD Chemicals Inc.

"NCRP" means "National Council on Radiation Protection."

"NTIS" means "National Technical Information Service."

"New Jersey Radium Method" means "Determination of Radium 228 in Drinking Water," available from the New Jersey Department of Environmental Protection.

"New York Radium Method" means "Determination of Ra-226 and Ra-228 (Ra-02)," available from the New York Department of Public Health.

"ONGP-MUG Test" (meaning "minimal medium ortho-nitrophenyl-beta-d-galactopyranoside-4-methyl-umbelliferyl-beta-d-glucuronide test"), also called the "Autoanalysis Colilert System," is Method 9223, available in "Standard Methods for the Examination of Water and Wastewater," 18th ed., from American Public Health Association.

"Palintest Method 1001" means "Method Number 1001," available from Palintest, Ltd. or the Hach Company.

"QuikChem Method 10–204–00–1-X" means "Digestion and distillation of total cyanide in drinking and wastewaters using MICRO DIST and determination of cyanide by flow injection analysis," available from Lachat Instruments.

"Readycult Coliforms 100 Presence/Absence Test" means "Readycult Coliforms 100 Presence/Absence Test for Detection and Identification of Coliform Bacteria and Escherichia coli in Finished Waters," available from EMD Chemicals Inc.

"SimPlate Method" means "IDEXX SimPlate TM HPC Test Method for Heterotrophs in Water," available from IDEXX Laboratories, Inc.

"Radiochemical Methods" means "Interim Radiochemical Methodology for Drinking Water," available from NTIS.

"Standard Methods" means "Standard Methods for the Examination of Water and Wastewater," available from the American Public Health Association or the American Waterworks Association.

"Syngenta AG-625" means "Atrazine in Drinking Water by Immunoassay," February 2001 is available from Syngenta Crop Protection, Inc.

"Technical Bulletin 601" means "Technical Bulletin 601, Standard Method of Testing for Nitrate in Drinking Water," July 1994, available from Analytical Technology, Inc.

"Technicon Methods" means "Fluoride in Water and Wastewater," available from Bran & Luebbe.

"USDOE Manual" means "EML Procedures Manual," available from the United State Department of Energy.

"USEPA Asbestos Methods-100.1" means Method 100.1, "Analytical Method for Determination of Asbestos Fibers in Water," September 1983, available from NTIS.

"USEPA Asbestos Methods-100.2" means Method 100.2, "Determination of Asbestos Structures over 10-mm in Length in Drinking Water," June 1994, available from NTIS.

"USEPA Environmental Inorganics Methods" means "Methods for the Determination of Inorganic Substances in Environmental Samples," August 1993, available from NTIS.

"USEPA Environmental Metals Methods" means "Methods for the Determination of Metals in Environmental Samples," available from NTIS.

"USEPA Inorganic Methods" means "Methods for Chemical Analysis of Water and Wastes," March 1983, available from NTIS.

"USEPA Interim Radiochemical Methods" means "Interim Radiochemical Methodology for Drinking Water," EPA 600/4-75-008 (revised), March 1976. Available from NTIS.

"USEPA Organic Methods" means "Methods for the Determination of Organic Compounds in Drinking Water," July 1991, for Methods 502.2, 505, 507, 508, 508A, 515.1, and 531.1; "Methods for the Determination of Organic Compounds in Drinking Water--Supplement I," July 1990, for Methods 506, 547, 550, 550.1, and 551; and "Methods for the Determination of Organic Compounds in Drinking Water--Supplement II." August 1992, for Methods 515.2, 524.2, 548.1, 549.1, 552.1, and 555. available from NTIS. Methods 504.1, 508.1, and 525.2 are available from EPA EMSL; "Methods for the Determination of Organic Compounds" in Drinking Water--Supplement II, August 1992, for Method 552.1; "Methods for the Determination of Organic Compounds in Drinking Water--Supplement III," August 1995, for Methods 502.2, 524.2, 551.1, and 552.2. Method 515.4, "Determination of Chlorinated Acids in Drinking Water by Liquid-Liquid Microextraction, Derivatization and Fast Gas Chromatography with Electron Capture Detection," Revision 1.0, April 2000, EPA 815/B-00/001, and Method 531.2, "Measurement of Nmethylcarbamoyloximes and N-methylcarbamates in Water by Direct Agueous Injection HPLC with Postcolumn Derivatization," Revision 1.0. September 2001, EPA 815/B/01/002, are both available on-line from USEPA, Office of Ground Water and Drinking Water.

"USEPA Radioactivity Methods" means "Prescribed Procedures for Measurement of Radioactivity in Drinking Water," EPA 600/4-80-032, August 1980. Available from NTIS.

"USEPA Radiochemical Analyses" means "Radiochemical Analytical Procedures for Analysis of Environmental Samples," March 1979. Available from NTIS.

"USEPA Radiochemistry Methods" means "Radiochemistry Procedures Manual," EPA 520/5-84-006, December 1987. Available from NTIS.

"USEPA Technical Notes" means "Technical Notes on Drinking Water Methods," available from NTIS.

"USGS Methods" means "Methods of Analysis by the U.S. Geological Survey National Water Quality Laboratory--Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments," available from NTIS and USGS.

"Waters Method B-1011" means "Waters Test Method for the Determination of Nitrite/Nitrate in Water Using Single Column Ion Chromatography," available from Waters Corporation, Technical Services Division

b) The Board incorporates the following publications by reference:

Advanced Polymer Systems, 3696 Haven Avenue, Redwood City, CA 94063 415-366-2626.

Amco-AEPA-1 Polymer. See 40 CFR 141.22(a)-(2003) (2005). Also, as referenced in ASTM D1889.

American Public Health Association, 1015 Fifteenth Street NW, Washington, DC 20005 800-645-5476.

"Standard Methods for the Examination of Water and Wastewater," 17th Edition, 1989 (referred to as "Standard Methods, 17th ed.").

"Standard Methods for the Examination of Water and Wastewater," 18th Edition, 1992, including "Supplement to the 18th Edition of Standard Methods for the Examination of Water and Wastewater," 1994 (collectively referred to as "Standard Methods, 18th ed."). See the methods listed separately for the same references under American Waterworks Association.

"Standard Methods for the Examination of Water and Wastewater," 19th Edition, 1995 (referred to as "Standard Methods, 19th ed.").

"Standard Methods for the Examination of Water and Wastewater," 20th Edition, 1998 (referred to as "Standard Methods, 20th ed.").

American Waterworks Association et al., 6666 West Quincy Ave., Denver, CO 80235 303-794-7711.

"National Field Evaluation of a Defined Substrate Method for the Simultaneous Enumeration of Total Coliforms and Escherichia coli

for Drinking Water: Comparison with the Standard Multiple Tube Fermentation Method," S.C. Edberg, M.J. Allen & D.B. Smith, Applied Environmental Microbiology, vol. 54, iss. 6, pp 1595-1601 (1988).

"Standard Methods for the Examination of Water and Wastewater," 13th Edition, 1971 (referred to as "Standard Methods, 13th ed.").

Method 302, Gross Alpha and Gross Beta Radioactivity in Water (Total, Suspended, and Dissolved).

Method 303, Total Radioactive Strontium and Strontium 90 in Water.

Method 304, Radium in Water by Precipitation.

Method 305, Radium 226 by Radon in Water (Soluble, Suspended, and Total).

Method 306, Tritium in Water.

"Standard Methods for the Examination of Water and Wastewater," 17th Edition, 1989 (referred to as "Standard Methods, 17th ed.").

Method 7110 B, Gross Alpha and Gross Beta Radioactivity in Water (Total, Suspended, and Dissolved).

Method 7500-Cs B, Radioactive Cesium, Precipitation Method.

Method 7500-³H B, Tritium in Water.

Method 7500-I B, Radioactive Iodine, Precipitation Method.

Method 7500-I C, Radioactive Iodine, Ion-Exchange Method.

Method 7500-I D, Radioactive Iodine, Distillation Method.

Method 7500-Ra B, Radium in Water by Precipitation.

Method 7500-Ra C, Radium 226 by Radon in Water (Soluble, Suspended, and Total).

Method 7500-Ra D, Radium, Sequential Precipitation Method (Proposed).

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Method 7500-Sr B, Total Radioactive Strontium and Strontium 90 in Water.

Method 7500-U B, Uranium, Radiochemical Method (Proposed).

Method 7500-U C, Uranium, Isotopic Method (Proposed).

"Standard Methods for the Examination of Water and Wastewater," 18th Edition, 1992 (referred to as "Standard Methods, 18th ed.").

Method 2130 B, Turbidity, Nephelometric Method.

Method 2320 B, Alkalinity, Titration Method.

Method 2510 B, Conductivity, Laboratory Method.

Method 2550, Temperature, Laboratory and Field Methods.

Method 3111 B, Metals by Flame Atomic Absorption Spectrometry, Direct Air-Acetylene Flame Method.

Method 3111 D, Metals by Flame Atomic Absorption Spectrometry, Direct Nitrous Oxide-Acetylene Flame Method.

Method 3112 B, Metals by Cold-Vapor Atomic Absorption Spectrometry, Cold-Vapor Atomic Absorption Spectrometric Method.

Method 3113 B, Metals by Electrothermal Atomic Absorption Spectrometry, Electrothermal Atomic Absorption Spectrometric Method.

Method 3114 B, Metals by Hydride Generation/Atomic Absorption Spectrometry, Manual Hydride Generation/Atomic Absorption Spectrometric Method.

Method 3120 B, Metals by Plasma Emission Spectroscopy, Inductively Coupled Plasma (ICP) Method.

Method 3500-Ca D, Calcium, EDTA Titrimetric Method.

Method 3500-Mg E, Magnesium, Calculation Method.

Method 4110 B, Determination of Anions by Ion Chromatography, Ion Chromatography with Chemical Suppression of Eluent Conductivity.

Method 4500-CN⁻ C, Cyanide, Total Cyanide after Distillation.

Method 4500-CN E, Cyanide, Colorimetric Method.

Method 4500-CN⁻ F, Cyanide, Cyanide-Selective Electrode Method.

Method 4500-CN G, Cyanide, Cyanides Amenable to Chlorination after Distillation.

Method 4500-Cl D, Chlorine, Amperometric Titration Method.

Method 4500-Cl E, Chlorine, Low-Level Amperometric Titration Method.

Method 4500-Cl F, Chlorine, DPD Ferrous Titrimetric Method.

Method 4500-Cl G, Chlorine, DPD Colorimetric Method.

Method 4500-Cl H, Chlorine, Syringaldazine (FACTS) Method.

Method 4500-Cl I, Chlorine, Iodometric Electrode Method.

Method 4500-ClO₂ C, Chlorine Dioxide, Amperometric Method I.

Method 4500-ClO₂ D, Chlorine Dioxide, DPD Method.

Method 4500-ClO₂ E, Chlorine Dioxide, Amperometric Method II (Proposed).

Method 4500-F B, Fluoride, Preliminary Distillation Step.

Method 4500-F C, Fluoride, Ion-Selective Electrode

Method.

Method 4500-F D, Fluoride, SPADNS Method.

Method 4500-F E, Fluoride, Complexone Method.

Method 4500-H⁺ B, pH Value, Electrometric Method.

Method 4500-NO₂ B, Nitrogen (Nitrite), Colorimetric Method.

Method 4500-NO₃ D, Nitrogen (Nitrate), Nitrate Electrode Method.

Method 4500-NO₃ E, Nitrogen (Nitrate), Cadmium Reduction Method.

Method 4500-NO₃ F, Nitrogen (Nitrate), Automated Cadmium Reduction Method.

Method 4500-O₃ B, Ozone (Residual) (Proposed), Indigo Colorimetric Method.

Method 4500-P E, Phosphorus, Ascorbic Acid Method.

Method 4500-P F, Phosphorus, Automated Ascorbic Acid Reduction Method.

Method 4500-Si D, Silica, Molybdosilicate Method.

Method 4500-Si E, Silica, Heteropoly Blue Method.

Method 4500-Si F, Silica, Automated Method for Molybdate-Reactive Silica.

Method 6651, Glyphosate Herbicide (Proposed).

Method 7110 B, Gross Alpha and Beta Radioactivity (Total, Suspended, and Dissolved), Evaporation Method for Gross Alpha-Beta.

Method 7110 C, Gross Alpha and Beta Radioactivity (Total, Suspended, and Dissolved), Coprecipitation Method for Gross Alpha Radioactivity in Drinking Water (Proposed).

Method 7500-Cs B, Radioactive Cesium, Precipitation Method.

Method 7500-³H B, Tritium, Liquid Scintillation Spectrometric Method.

Method 7500-I B, Radioactive Iodine, Precipitation Method.

Method 7500-I C, Radioactive Iodine, Ion-Exchange Method.

Method 7500-I D, Radioactive Iodine, Distillation Method.

Method 7500-Ra B, Radium, Precipitation Method.

Method 7500-Ra C, Radium, Emanation Method.

Method 7500-Ra D, Radium, Sequential Precipitation Method (Proposed).

Method 7500-Sr B, Total Radioactive Strontium and Strontium 90, Precipitation Method.

Method 7500-U B, Uranium, Radiochemical Method (Proposed).

Method 7500-U C, Uranium, Isotopic Method (Proposed).

Method 9215 B, Heterotrophic Plate Count, Pour Plate Method.

Method 9221 A, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Introduction.

Method 9221 B, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Standard Total Coliform Fermentation Technique.

Method 9221 C, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Estimation of Bacterial Density.

Method 9221 D, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Presence-Absence (P-A) Coliform Test.

Method 9221 E, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Fecal Coliform Procedure.

Method 9222 A, Membrane Filter Technique for Members of the Coliform Group, Introduction.

Method 9222 B, Membrane Filter Technique for Members of the Coliform Group, Standard Total Coliform Membrane Filter Procedure.

Method 9222 C, Membrane Filter Technique for Members of the Coliform Group, Delayed-Incubation Total Coliform Procedure.

Method 9222 D, Membrane Filter Technique for Members of the Coliform Group, Fecal Coliform Membrane Filter Procedure.

Method 9223, Chromogenic Substrate Coliform Test (Proposed).

"Supplement to the 18th Edition of Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 1994.

Method 6610, Carbamate Pesticide Method.

"Standard Methods for the Examination of Water and Wastewater," 19th Edition, 1995 (referred to as "Standard Methods, 19th ed.").

Method 2130 B, Turbidity, Nephelometric Method.

Method 2320 B, Alkalinity, Titration Method.

Method 2510 B, Conductivity, Laboratory Method.

Method 2550, Temperature, Laboratory, and Field Methods.

Method 3111 B, Metals by Flame Atomic Absorption Spectrometry, Direct Air-Acetylene Flame Method.

Method 3111 D, Metals by Flame Atomic Absorption

Spectrometry, Direct Nitrous Oxide-Acetylene Flame Method.

Method 3112 B, Metals by Cold-Vapor Atomic Absorption Spectrometry, Cold-Vapor Atomic Absorption Spectrometric Method.

Method 3113 B, Metals by Electrothermal Atomic Absorption Spectrometry, Electrothermal Atomic Absorption Spectrometric Method.

Method 3114 B, Metals by Hydride Generation/Atomic Absorption Spectrometry, Manual Hydride Generation/Atomic Absorption Spectrometric Method.

Method 3120 B, Metals by Plasma Emission Spectroscopy, Inductively Coupled Plasma (ICP) Method.

Method 3500-Ca D, Calcium, EDTA Titrimetric Method.

Method 3500-Mg E, Magnesium, Calculation Method.

Method 4110 B, Determination of Anions by Ion Chromatography, Ion Chromatography with Chemical Suppression of Eluent Conductivity.

Method 4500-Cl D, Chlorine, Amperometric Titration Method.

Method 4500-Cl E, Chlorine, Low-Level Amperometric Titration Method.

Method 4500-Cl F, Chlorine, DPD Ferrous Titrimetric Method.

Method 4500-Cl G, Chlorine, DPD Colorimetric Method.

Method 4500-Cl H, Chlorine, Syringaldazine (FACTS) Method.

Method 4500-Cl I, Chlorine, Iodometric Electrode Method.

Method 4500-ClO₂ C, Chlorine Dioxide, Amperometric Method I.

Method 4500-ClO₂ D, Chlorine Dioxide, DPD Method.

Method 4500-ClO₂ E, Chlorine Dioxide, Amperometric Method II (Proposed).

Method 4500-CN⁻ C, Cyanide, Total Cyanide after Distillation.

Method 4500-CN E, Cyanide, Colorimetric Method.

Method 4500-CN F, Cyanide, Cyanide-Selective Electrode Method.

Method 4500-CN⁻ G, Cyanide, Cyanides Amenable to Chlorination after Distillation.

Method 4500-F B, Fluoride, Preliminary Distillation Step.

Method 4500-F C, Fluoride, Ion-Selective Electrode Method.

Method 4500-F D, Fluoride, SPADNS Method.

Method 4500-F E, Fluoride, Complexone Method.

Method 4500-H⁺ B, pH Value, Electrometric Method.

Method 4500-NO₂ B, Nitrogen (Nitrite), Colorimetric Method.

Method 4500-NO₃ D, Nitrogen (Nitrate), Nitrate Electrode Method.

Method 4500-NO₃⁻ E, Nitrogen (Nitrate), Cadmium Reduction Method.

Method 4500-NO₃ F, Nitrogen (Nitrate), Automated Cadmium Reduction Method.

Method 4500-O₃ B, Ozone (Residual) (Proposed), Indigo Colorimetric Method.

Method 4500-P E, Phosphorus, Ascorbic Acid Method.

Method 4500-P F, Phosphorus, Automated Ascorbic Acid Reduction Method.

Method 4500-Si D, Silica, Molybdosilicate Method.

Method 4500-Si E, Silica, Heteropoly Blue Method.

Method 4500-Si F, Silica, Automated Method for Molybdate-Reactive Silica.

Method 5910 B, UV Absorbing Organic Constituents, Ultraviolet Absorption Method.

Method 6251 B, Disinfection Byproducts: Haloacetic Acids and Trichlorophenol, Micro Liquid-Liquid Extraction Gas Chromatographic Method.

Method 6651, Glyphosate Herbicide (Proposed).

Method 7110 B, Gross Alpha and Gross Beta Radioactivity, Evaporation Method for Gross Alpha-Beta.

Method 7110 C, Gross Alpha and Beta Radioactivity (Total, Suspended, and Dissolved), Coprecipitation Method for Gross Alpha Radioactivity in Drinking Water (Proposed).

Method 7120 B, Gamma-Emitting Radionuclides, Gamma Spectrometric Method.

Method 7500-Cs B, Radioactive Cesium, Precipitation Method.

Method 7500-3H B, Tritium, Liquid Scintillation Spectrometric Method.

Method 7500-I B, Radioactive Iodine, Precipitation Method.

Method 7500-I C, Radioactive Iodine, Ion-Exchange Method.

Method 7500-I D, Radioactive Iodine, Distillation Method.

Method 7500-Ra B, Radium, Precipitation Method.

Method 7500-Ra C, Radium, Emanation Method.

Method 7500-Ra D, Radium, Sequential Precipitation

Method.

Method 7500-Sr B, Total Radiactive Strontium and Strontium 90, Precipitation Method.

Method 7500-U B, Uranium, Radiochemical Method.

Method 7500-U C, Uranium, Isotopic Method.

Method 9215 B, Heterotrophic Plate Count, Pour Plate Method.

Method 9221 A, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Introduction.

Method 9221 B, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Standard Total Coliform Fermentation Technique.

Method 9221 C, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Estimation of Bacterial Density.

Method 9221 D, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Presence-Absence (P-A) Coliform Test.

Method 9221 E, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Fecal Coliform Procedure.

Method 9222 A, Membrane Filter Technique for Members of the Coliform Group, Introduction.

Method 9222 B, Membrane Filter Technique for Members of the Coliform Group, Standard Total Coliform Membrane Filter Procedure.

Method 9222 C, Membrane Filter Technique for Members of the Coliform Group, Delayed-Incubation Total Coliform Procedure.

Method 9222 D, Membrane Filter Technique for Members of the Coliform Group, Fecal Coliform Membrane Filter Procedure.

Method 9223, Chromogenic Substrate Coliform Test (Proposed).

"Supplement to the 19th Edition of Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 1996.

Method 5310 B, TOC, Combustion-Infrared Method.

Method 5310 C, TOC, Persulfate-Ultraviolet Oxidation Method.

Method 5310 D, TOC, Wet-Oxidation Method.

"Standard Methods for the Examination of Water and Wastewater," 20th Edition, 1998 (referred to as "Standard Methods, 20th ed.").

Method 2130 B, Turbidity, Nephelometric Method.

Method 2320 B, Alkalinity, Titration Method.

Method 2510 B, Conductivity, Laboratory Method.

Method 2550, Temperature, Laboratory, and Field Methods.

Method 3120 B, Metals by Plasma Emission Spectroscopy, Inductively Coupled Plasma (ICP) Method.

Method 3500-Ca B, Calcium, EDTA Titrimetric Method.

Method 3500-Mg B, Magnesium, EDTA Titrimetric Method.

Method 4110 B, Determination of Anions by Ion Chromatography, Ion Chromatography with Chemical Suppression of Eluent Conductivity.

Method 4500-CN C, Cyanide, Total Cyanide after Distillation.

Method 4500-CN E, Cyanide, Colorimetric Method.

Method 4500-CN⁻ F, Cyanide, Cyanide-Selective Electrode Method.

Method 4500-CN G, Cyanide, Cyanides Amenable to Chlorination after Distillation.

Method 4500-Cl D, Chlorine, Amperometric Titration Method.

Method 4500-Cl E, Chlorine, Low-Level Amperometric Titration Method.

Method 4500-Cl F, Chlorine, DPD Ferrous Titrimetric Method.

Method 4500-Cl G, Chlorine, DPD Colorimetric Method.

Method 4500-Cl H, Chlorine, Syringaldazine (FACTS) Method.

Method 4500-Cl I, Chlorine, Iodometric Electrode Method.

Method 4500-ClO2 C, Chlorine Dioxide, Amperometric Method I.

Method 4500-ClO2 D, Chlorine Dioxide, DPD Method.

Method 4500-ClO2 E, Chlorine Dioxide, Amperometric Method II (Proposed).

Method 4500-F B, Fluoride, Preliminary Distillation Step.

Method 4500-F⁻ C, Fluoride, Ion-Selective Electrode Method.

Method 4500-F D, Fluoride, SPADNS Method.

Method 4500-F E, Fluoride, Complexone Method.

Method 4500-H⁺ B, pH Value, Electrometric Method.

Method 4500-NO₂ B, Nitrogen (Nitrite), Colorimetric Method.

Method 4500-NO₃⁻ D, Nitrogen (Nitrate), Nitrate Electrode Method.

Method 4500-NO₃ E, Nitrogen (Nitrate), Cadmium

Reduction Method.

Method 4500-NO₃ F, Nitrogen (Nitrate), Automated Cadmium Reduction Method.

Method 4500-O3 B, Ozone (Residual) (Proposed), Indigo Colorimetric Method.

Method 4500-P E, Phosphorus, Ascorbic Acid Method.

Method 4500-P F, Phosphorus, Automated Ascorbic Acid Reduction Method.

Method 4500-Si C, Silica, Molybdosilicate Method.

Method 4500-Si D, Silica, Heteropoly Blue Method.

Method 4500-Si E, Silica, Automated Method for Molybdate-Reactive Silica.

Method 4500-Cl E, Chlorine (Residual), Low-Level Amperometric Titration Method.

Method 4500-Cl F, Chlorine (Residual), DPD Ferrous Titrimetric Method.

Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric Method.

Method 4500-Cl H, Chlorine (Residual), Syringaldazine (FACTS) Method.

Method 4500-Cl I, Chlorine (Residual), Iodometric Electrode Technique.

Method 4500-ClO₂ D, Chlorine Dioxide, DPD Method.

Method 4500-ClO₂ E, Chlorine Dioxide, Amperometric Method II.

Method 6651, Glyphosate Herbicide (Proposed).

Method 7110-B, Gross Alpha and Gross Beta Radioactivity, Evaporation Method for Gross Alpha-Beta.

Method 7110 C, Gross Alpha and Beta Radioactivity

(Total, Suspended, and Dissolved), Coprecipitation Method for Gross Alpha Radioactivity in Drinking Water (Proposed).

Method 7120-B, Gamma-Emitting Radionuclides, Gamma Spectrometric Method.

Method 7500-Cs B, Radioactive Cesium, Precipitation Method.

Method 7500-3H B, Tritium, Liquid Scintillation Spectrometric Method.

Method 7500-I B, Radioactive Iodine, Precipitation Method.

Method 7500-I C, Radioactive Iodine, Ion-Exchange Method.

Method 7500-I D, Radioactive Iodine, Distillation Method.

Method 7500-Ra B, Radium, Precipitation Method.

Method 7500-Ra C, Radium, Emanation Method.

Method 7500-Sr B, Total Radiactive Strontium and Strontium 90, Precipitation Method.

Method 7500-U B, Uranium, Radiochemical Method.

Method 7500-U C, Uranium, Isotopic Method.

Method 9215 B, Heterotrophic Plate Count, Pour Plate Method.

Method 9221 A, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Introduction.

Method 9221 B, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Standard Total Coliform Fermentation Technique.

Method 9221 C, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Estimation of Bacterial Density.

Method 9221 D, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Presence-Absence (P-A) Coliform Test.

Method 9221 E, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Fecal Coliform Procedure.

Method 9222 A, Membrane Filter Technique for Members of the Coliform Group, Introduction.

Method 9222 B, Membrane Filter Technique for Members of the Coliform Group, Standard Total Coliform Membrane Filter Procedure.

Method 9222 C, Membrane Filter Technique for Members of the Coliform Group, Delayed-Incubation Total Coliform Procedure

Method 9222 D, Membrane Filter Technique for Members of the Coliform Group, Fecal Coliform Membrane Filter Procedure.

Method 9223, Chromogenic Substrate Coliform Test (Proposed).

Analytical Technology, Inc. ATI Orion, 529 Main Street, Boston, MA 02129.

Technical Bulletin 601, "Standard Method of Testing for Nitrate in Drinking Water," July, 1994, PN 221890-001 (referred to as "Technical Bulletin 601").

ASTM. American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 610-832-9585.

ASTM Method D511-93 A and B, "Standard Test Methods for Calcium and Magnesium in Water," "Test Method A-Complexometric Titration" & "Test Method B--Atomic Absorption Spectrophotometric," approved 1993.

ASTM Method D515-88 A, "Standard Test Methods for Phosphorus in Water," "Test Method A--Colorimetric Ascorbic Acid Reduction," approved August 19, 1988.

ASTM Method D859-88, "Standard Test Method for Silica in

Water," approved August 19, 1988.

ASTM Method D1067-92 B, "Standard Test Methods for Acidity or Alkalinity in Water," "Test Method B--Electrometric or Color-Change Titration," approved May 15, 1992.

ASTM Method D1125-91 A, "Standard Test Methods for Electrical Conductivity and Resistivity of Water," "Test Method A--Field and Routine Laboratory Measurement of Static (Non-Flowing) Samples," approved June 15, 1991.

ASTM Method D1179-93 B, "Standard Test Methods for Fluoride in Water," "Test Method B--Ion Selective Electrode," approved 1993.

ASTM Method D1253-86, "Standard Test Method for Residual Chlorine in Water," reapproved 1992.

ASTM Method D1293-84, "Standard Test Methods for pH of Water," "Test Method A--Precise Laboratory Measurement" & "Test Method B--Routine or Continuous Measurement," approved October 26, 1984.

ASTM Method D1688-90 A or C, "Standard Test Methods for Copper in Water," "Test Method A--Atomic Absorption, Direct" & "Test Method C--Atomic Absorption, Graphite Furnace," approved March 15, 1990.

ASTM Method D2036-91 A or B, "Standard Test Methods for Cyanide in Water," "Test Method A--Total Cyanides after Distillation" & "Test Method B--Cyanides Amenable to Chlorination by Difference," approved September 15, 1991.

ASTM Method D2459-72, "Standard Test Method for Gamma Spectrometry in Water," approved July 28, 1972, discontinued 1988.

ASTM Method D2460-90, "Standard Test Method for Radionuclides of Radium in Water," approved 1990.

ASTM Method D2907-91, "Standard Test Methods for Microquantities of Uranium in Water by Fluorometry," "Test Method A--Direct Fluorometric" & "Test Method B—Extraction," approved June 15, 1991.

ASTM Method D2972-93 B or C, "Standard Test Methods for

Arsenic in Water," "Test Method B--Atomic Absorption, Hydride Generation" & "Test Method C--Atomic Absorption, Graphite Furnace," approved 1993.

ASTM Method D3223-91, "Standard Test Method for Total Mercury in Water," approved September 23, 1991.

ASTM Method D3454-91, "Standard Test Method for Radium-226 in Water," approved 1991.

ASTM Method D3559-90 D, "Standard Test Methods for Lead in Water," "Test Method D--Atomic Absorption, Graphite Furnace," approved August 6, 1990.

ASTM Method D3645-93 B, "Standard Test Methods for Beryllium in Water," "Method B--Atomic Absorption, Graphite Furnace," approved 1993.

ASTM Method D3649-91, "Standard Test Method for High-Resolution Gamma-Ray Spectrometry of Water," approved 1991.

ASTM Method D3697-92, "Standard Test Method for Antimony in Water," approved June 15, 1992.

ASTM Method D3859-93 A, "Standard Test Methods for Selenium in Water," "Method A--Atomic Absorption, Hydride Method," approved 1993.

ASTM Method D3867-90 A and B, "Standard Test Methods for Nitrite-Nitrate in Water," "Test Method A--Automated Cadmium Reduction" & "Test Method B--Manual Cadmium Reduction," approved January 10, 1990.

ASTM Method D3972-90, "Standard Test Method for Isotopic Uranium in Water by Radiochemistry," approved 1990.

ASTM Method D4107-91, "Standard Test Method for Tritium in Drinking Water," approved 1991.

ASTM Method D4327-91, "Standard Test Method for Anions in Water by Ion Chromatography," approved October 15, 1991.

ASTM Method D4785-88, "Standard Test Method for Low-Level Iodine-131 in Water," approved 1988.

ASTM Method D5174-91, "Standard Test Method for Trace

Uranium in Water by Pulsed-Laser Phosphorimetry," approved 1991.

ASTM Method D5673-03, "Standard Test Method for Elements in Water by Inductively Coupled Plasma—Mass Spectrometry," approved 2003.

Bran & Luebbe, 1025 Busch Parkway, Buffalo Grove, IL 60089.

"Fluoride in Water and Wastewater," Industrial Method #129-71W, December 1972 (referred to as "Technicon Methods: Method #129-71W"). See 40 CFR 141.23(k)(1), footnote 11 (2003) (2005).

"Fluoride in Water and Wastewater," #380-75WE, February 1976 (referred to as "Technicon Methods: Method #380-75WE"). See 40 CFR 141.23(k)(1), footnote 11-(2003) (2005).

CPI International, Inc., 5580 Skylane Blvd. Santa Rosa, CA 95403. Telephone: 800-878-7654. Fax: 707-545-7901. Internet address: www.cpiinternational.com.

"Colitag® Product as a Test for Detection and Identification of Coliforms and E. coli Bacteria in Drinking Water and Source Water as Required in National Primary Drinking Water Regulations," August 2001.

EMD Chemicals Inc. (an affiliate of Merck KGgA, Darmstadt, Germany), 480 S. Democrat Road, Gibbstown, NJ 08027–1297. Telephone: 800-222–0342. E-mail: adellenbusch@emscience.com.

"Chromocult Coliform Agar Presence/Absence Membrane Filter Test Method for Detection and Identification of Coliform Bacteria and Escherichia coli in Finished Waters," November 2000, Version 1.0.

"Readycult Coliforms 100 Presence/Absence Test for Detection and Identification of Coliform Bacteria and Escherichia coli in Finished Waters," November 2000, Version 1.0.

ERDA Health and Safety Laboratory, New York, NY.

HASL Procedure Manual, HASL 300, 1973. See 40 CFR 141.25(b)(2) (2003) (2005).

Great Lakes Instruments, Inc., 8855 North 55th Street, Milwaukee, WI

53223.

GLI Method 2, "Turbidity," Nov. 2, 1992.

The Hach Company, P.O. Box 389, Loveland, CO 80539-0389. Phone: 800-227-4224.

"Lead in Drinking Water by Differential Pulse Anodic Stripping Voltammetry," Method 1001, August 1999.

"Determination of Turbidity by Laser Nephelometry," January 2000, Revision 2.0 (referred to as "Hach FilterTrak Method 10133").

IDEXX Laboratories, Inc., One IDEXX Drive, Westbrook, Maine 04092. Telephone: 800-321-0207.

"IDEXX SimPlate TM HPC Test Method for Heterotrophs in Water," November 2000.

Lachat Instruments, 6645 W. Mill Rd., Milwaukee, WI 53218. Phone: 414–358–4200.

"Digestion and distillation of total cyanide in drinking and wastewaters using MICRO DIST and determination of cyanide by flow injection analysis," Revision 2.1, November 30, 2000 (referred to as "QuikChem Method 10-204-00-1-X").

Millipore Corporation, Technical Services Department, 80 Ashby Road, Milford, MA 01730 800-654-5476.

Colisure Presence/Absence Test for Detection and Identification of Coliform Bacteria and Escherichia Coli in Drinking Water, February 28, 1994 (referred to as "Colisure Test").

NCRP. National Council on Radiation Protection, 7910 Woodmont Ave., Bethesda, MD 301-657-2652.

"Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure," NCRP Report Number 22, June 5, 1959.

NSF. National Sanitation Foundation International, 3475 Plymouth Road, PO Box 130140, Ann Arbor, Michigan 48113-0140, 734-769-8010.

NSF Standard 61, section 9, November 1998.

NTIS. National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161, 703-487-4600 or 800-553-6847.

"Interim Radiochemical Methodology for Drinking Water," EPA 600/4-75-008 (revised), March 1976 (referred to as "USEPA Interim Radiochemical Methods"). (Pages 1, 4, 6, 9, 13, 16, 24, 29, 34)

"Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, And Thiocyanate," Revision 1.2, August 2001, EPA # 821–B–01–009 (referred to as "Kelada 01").

"Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure," NBS (National Bureau of Standards) Handbook 69, as amended August 1963, U.S. Department of Commerce.

Method 100.1, "Analytical Method for Determination of Asbestos Fibers in Water," EPA-600/4-83-043, September 1983, Doc. No. PB83-260471 (referred to as "USEPA Asbestos Methods-100.1").

Method 100.2, "Determination of Asbestos Structures over 10-mm in Length in Drinking Water," EPA-600/4-83-043, June 1994, Doc. No. PB94-201902 (referred to as "USEPA Asbestos Methods-100.2").

"Methods for Chemical Analysis of Water and Wastes," March 1983, Doc. No. PB84-128677 (referred to as "USEPA Inorganic Methods"). (Methods 150.1, 150.2, and 245.2, which formerly appeared in this reference, are available from USEPA EMSL.)

"Methods for the Determination of Inorganic Substances in Environmental Samples," August 1993, PB94-120821 (referred to as "USEPA Environmental Inorganic Methods").

"Methods for the Determination of Metals in Environmental Samples," June 1991, Doc. No. PB91-231498 and "Methods for the Determination of Metals in Environmental Samples-Supplement I," May 1994, PB95-125472 (referred to as "USEPA Environmental Metals Methods").

"Methods for the Determination of Organic Compounds in Drinking Water," December 1988, revised July 1991, EPA-600/4-

88/039 (referred to as "USEPA Organic Methods"). (For methods 502.2, 505, 507, 508, 508A, 515.1, and 531.1.)

"Methods for the Determination of Organic Compounds in Drinking Water--Supplement I," July 1990, EPA/600-4-90-020 (referred to as "USEPA Organic Methods"). (For methods 506, 547, 550, 550.1, and 551.)

"Methods for the Determination of Organic Compounds in Drinking Water--Supplement II," August 1992, EPA-600/R-92-129 (referred to as "USEPA Organic Methods"). (For methods 515.2, 524.2, 548.1, 549.1, 552.1, and 555.)

"Prescribed Procedures for Measurement of Radioactivity in Drinking Water," EPA 600/4-80-032, August 1980 (document number PB 80-224744) (referred to as "USEPA Radioactivity Methods"). (Methods 900, 901, 901.1, 902, 903, 903.1, 904, 905, 906, 908, 908.1)

"Procedures for Radiochemical Analysis of Nuclear Reactor Aqueous Solutions," H.L. Krieger and S. Gold, EPA-R4-73-014, May 1973, Doc. No. PB222-154/7BA.

"Radiochemical Analytical Procedures for Analysis of Environmental Samples," March 1979, Doc. No. EMSL LV 053917 (referred to as "USEPA Radiochemical Analyses"). (Pages 1, 19, 33, 65, 87, 92)

"Radiochemistry Procedures Manual," EPA-520/5-84-006, December 1987, Doc. No. PB-84-215581 (referred to as "USEPA Radiochemistry Methods"). (Methods 00-01, 00-02, 00-07, H-02, Ra-03, Ra-04, Ra-05, Sr-04)

"Technical Notes on Drinking Water Methods," EPA-600/R-94-173, October 1994, Doc. No. PB-104766 (referred to as "USEPA Technical Notes").

BOARD NOTE: USEPA made the following assertion with regard to this reference at 40 CFR 141.23(k)(1) and 141.24(e) and (n)(11)-(2003) (2005): "This document contains other analytical test procedures and approved analytical methods that remain available for compliance monitoring until July 1, 1996."

"Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS," October 1994, EPA-821-B-94-005 (referred to as "Dioxin and Furan Method 1613").

New Jersey Department of Environment, Division of Environmental Quality, Bureau of Radiation and Inorganic Analytical Services, 9 Ewing Street, Trenton, NJ 08625.

"Determination of Radium 228 in Drinking Water," August 1990.

New York Department of Health, Radiological Sciences Institute, Center for Laboratories and Research, Empire State Plaza, Albany, NY 12201.

"Determination of Ra-226 and Ra-228 (Ra-02)," January 1980, Revised June 1982.

Palintest, Ltd., 21 Kenton Lands Road, P.O. Box 18395, Erlanger, KY 800-835-9629.

"Lead in Drinking Water by Differential Pulse Anodic Stripping Voltammetry," Method 1001, August 1999.

Syngenta Crop Protection, Inc., 410 Swing Road, Post Office Box 18300, Greensboro, NC 27419. Telephone: 336-632–6000.

"Atrazine in Drinking Water by Immunoassay," February 2001 (referred to as "Syngenta AG-625").

United States Department of Energy, available at the Environmental Measurements Laboratory, U.S. Department of Energy, 376 Hudson Street, New York, NY 10014-3621.

"EML Procedures Manual," 27th Edition, Volume 1, 1990.

United States Environmental Protection Agency, Office of Ground Water and Drinking Water, accessible on-line and available by download from http://www.epa.gov/safewater/methods/.

Method 515.4, "Determination of Chlorinated Acids in Drinking Water by Liquid-Liquid Microextraction, Derivatization and Fast Gas Chromatography with Electron Capture Detection," Revision 1.0, April 2000, EPA 815/B–00/001 (document file name "met515_4.pdf").

Method 531.2, "Measurement of N-methylcarbamoyloximes and N-methylcarbamates in Water by Direct Aqueous Injection HPLC with Postcolumn Derivatization," Revision 1.0, September 2001, EPA 815/B/01/002 (document file name "met531_2.pdf").

United States Environmental Protection Agency, EMSL, Cincinnati, OH 45268 513-569-7586.

"Interim Radiochemical Methodology for Drinking Water," EPA-600/4-75-008 (referred to as "Radiochemical Methods"). (Revised) March 1976.

"Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water" (referred to as "USEPA Organic Methods"). (For methods 504.1, 508.1, and 525.2 only.) See NTIS.

"Procedures for Radiochemical Analysis of Nuclear Reactor Aqueous Solutions." See NTIS.

USEPA, Science and Technology Branch, Criteria and Standards Division, Office of Drinking Water, Washington, D.C. 20460.

"Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems using Surface Water Sources," October 1989.

USGS. Books and Open-File Reports Section, United States Geological Survey, Federal Center, Box 25286, Denver, CO 80225-0425.

Methods available upon request by method number from "Methods for Analysis by the U.S. Geological Survey National Water Quality Laboratory--Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments," Open File Report 93-125, 1993, or Book 5, Chapter A-1, "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments," 3rd ed., Open-File Report 85-495, 1989, as appropriate (referred to as "USGS Methods").

I-1030-85

I-1062-85

I-1601-85

I-1700-85

I-2598-85

I-2601-90

I-2700-85

I-3300-85

Methods available upon request by method number from "Methods for Determination of Radioactive Substances in Water and Fluvial Sediments," Chapter A5 in Book 5 of "Techniques of Water-Resources Investigations of the United States Geological Survey," 1997.

R-1110-76

R-1111-76

R-1120-76

R-1140-76

R-1141-76

R-1142-76

R-1160-76

R-1171-76

R-1180-76

R-1181-76

R-1182-76

Waters Corporation, Technical Services Division, 34 Maple St., Milford, MA 01757 800-252-4752.

"Waters Test Method for Determination of Nitrite/Nitrate in Water Using Single Column Ion Chromatography," Method B-1011, August 1987 (referred to as "Waters Method B-1011").

c) The Board incorporates the following federal regulations by reference:

40 CFR 3.2, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (How Does This Part Provide for Electronic Reporting?), referenced in Section 611.105.

40 CFR 3.3, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (What

Definitions Are Applicable to This Part?), referenced in Section 611.105.

40 CFR 3.10, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (What Are the Requirements for Electronic Reporting to EPA?), referenced in Section 611.105.

40 CFR 3.2000, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (What Are the Requirements Authorized State, Tribe, and Local Programs' Reporting Systems Must Meet?), referenced in Section 611.105.

<u>Appendix B to 40 CFR 136, Appendices B and C (2003) (2005), reverenced in Sections 611.359, 611.609 & 611.646</u>.

| d) T | This Part inco | rporates no later amendments or editions. | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------|----------------------|
| (Source: Amen | ded at 30 Ill. | Reg, effective |) |
| Section 611.105 | Electro | onic Reporting | |
| The filing of any subject to this S | | ursuant to any provision of this Part as an ele | ectronic document is |
| <u>a)</u> S | Scope and Ap | plicability. | |
| 1) The USEPA, the Board, or the Agency may allow for the filing electronic documents. This Section does not require submission electronic documents in lieu of paper documents. This Section the requirements for the optional electronic filing of any report document that must be submitted to the appropriate of the follows: | | e submission of Chis Section sets forth f any report or of the following: | |
| | <u>A)</u> | To USEPA directly under Title 40 of the Co Regulations; or | de of Federal |
| | <u>B)</u> | To the Board or the Agency pursuant to any Adm. Code 702 through 705, 720 through 75, 739. | _ |

2)

has first done as follows:

A) As to filing with USEPA, USEPA has published a notice in the Federal Register announcing that USEPA is prepared to receive documents required or permitted by the identified part or subpart of Title 40 of the Code of Federal Regulations in an electronic format; or

Electronic document filing under this Section can begin only after USEPA

- B) As to filing with the State, USEPA has granted approval of any electronic document receiving system established by the Board or the Agency that meets the requirements of 40 CFR 3.2000, incorporated by reference in Section 611.102(c).
- 3) This Section does not apply to any of the following documents, whether or not the document is a document submitted to satisfy the requirements cited in subsection (a)(1) of this Section:
 - A) Any document submitted via fascimile;
 - B) Any document submitted via magnetic or optical media, such as diskette, compact disc, digital video disc, or tape; or
 - C) Any data transfer between USEPA, any state, or any local government and either the Board or the Agency as part of administrative arrangements between the parties to the transfer to share data.
- 4) Upon USEPA conferring approval for the filing of any types of documents as electronic documents, as described in subsection (a)(2)(B) of this Section, the Agency or the Board, as appropriate, must publish a Notice of Public Information in the Illinois Register that describes the documents approved for submission as electronic documents, the electronic document receiving system approved to receive them, the acceptable formats and procedures for their submission, and the date on which the Board or the Agency will begin to receive those submissions. In the event of cessation of USEPA approval or receiving any type of document as an electronic document, the Board or the Agency must similarly cause publication of a Notice of Public Information in the Illinois Register.

BOARD NOTE: Subsection (a) of this Section is derived from 40 CFR 3.1, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).

- b) Definitions. For the purposes of this Section, terms will have the meaning attributed them in 40 CFR 3.3, incorporated by reference in 35 Ill. Adm. Code 611.102(c).
- provided in subsection (a)(3) of this Section, any person who is required under Title 40 of the Code of Federal Regulations to create and submit or otherwise provide a document to USEPA may satisfy this requirement with an electronic document, in lieu of a paper document, provided the following conditions are met:
 - 1) The person satisfies the requirements of 40 CFR 3.10, incorporated by

reference in Section 611.102(c); and

2) <u>USEPA has first published a notice in the Federal Register as described in subsection (a)(2) of this Section.</u>

BOARD NOTE: Subsection (c) of this Section is derived from 40 CFR 3.2(a) and subpart B of 40 CFR 3, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).

- d) Procedures for submission of electronic documents to the Board or the Agency.
 - The Board or the Agency may, but is not required to, establish procedures for the electronic submission of documents that meet the requirements of 40 CFR 3.2 and 3.2000, incorporated by reference in Section 611.102(c). The Board or the Agency must establish any such procedures under the Administrative Procedure Act [5 ILCS 100/5].
 - The Board or the Agency may not accept electronic documents under this Section until after USEPA has approved the procedures in writing, and the Board or the Agency has published a notice of such approval in the Illinois Register. Nothing in this subsection (d) limits the authority of the Board or the Agency under the Illinois Environmental Protection Act [415 ILCS 5] to accept documents filed electronically.

BOARD NOTE: Subsection (d) of this Section is derived from 40 CFR 3.2(b) and subpart D of 40 CFR 3, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).

- e) Effects of submission of an electronic document.
 - 1) If a person who submits a document as an electronic document fails to comply with the requirements this Section, that person is subject to the penalties prescribed for failure to comply with the requirement that the electronic document was intended to satisfy.
 - 2) Where a document submitted as an electronic document to satisfy a reporting requirement bears an electronic signature, the electronic signature legally binds, obligates, and makes the signer responsible to the same extent as the signer's handwritten signature would on a paper document submitted to satisfy the same reporting requirement.
 - 3) Proof that a particular signature device was used to create an electronic signature will suffice to establish that the individual uniquely entitled to use the device did so with the intent to sign the electronic document and give it effect.
 - 4) Nothing in this Section limits the use of electronic documents or information derived from electronic documents as evidence in

enforcement or other proceedings.

BOARD NOTE: Subsection (e) of this Section is derived from 40 CFR 3.4 and 3.2000(c), as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).

- Public document subject to State laws. Any electronic document filed with the Board is a public document. The document, its filing, its retention by the Board, and its availability for public inspection and copying are subject to various State laws, including, but not limited to, the following:
 - 1) The Administrative Procedure Act [5 ILCS 100];
 - 2) The Freedom of Information Act [5 ILCS 140];
 - 3) The State Records Act [5 ILCS 160];
 - 4) The Electronic Commerce Security Act [5 ILCS 175];
 - 5) The Environmental Protection Act [415 ILCS 5];
 - 6) Regulations relating to public access to Board records (2 Ill. Adm. Code 2175); and
 - 7) Board procedural rules relating to protection of trade secrets and confidential information (35 Ill. Adm. Code 130).
- Nothing in this Section or in any provisions adopted pursuant to subsection (c)(1) of this Section will create any right or privilege to submit any document as an electronic document.

BOARD NOTE: Subsection (g) of this Section is derived from 40 CFR 3.2(c), as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).

| BOARD NOTE: Derived from 40 CFI | R 3, as added, and 40 C | CFR 142.10(g) (2005) | , as amended |
|----------------------------------------|-------------------------|----------------------|--------------|
| at 70 Fed. Reg. 59848 (Oct. 13, 2005). | | | |

| (Source: | Added at 30 Ill. Reg. | , effective | |
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Section 611.111 Relief Equivalent to SDWA Section 1415(a) Variances

This Section is intended to describe how the Board grants State relief equivalent to that available from USEPA under section 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) and (a)(1)(B)). SDWA section 1415 variances do not require ultimate compliance within five years in every situation. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do require compliance within five years in every case. Consequently, a PWS may have the option of seeking State regulatory relief equivalent to a SDWA section 1415 variance through one of

three procedural mechanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] and Subpart B of 35 Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 ILCS 5/27-28] and 35 Ill. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act [415 ILCS 5/28.1] and Subpart D of 35 Ill. Adm. Code 104.

- a) The Board will grant a PWS a variance, a site-specific rule, or an adjusted standard from an MCL or a treatment technique pursuant to this Section.
 - 1) The PWS must file a petition pursuant to 35 Ill. Adm. Code 102 or 104, as applicable.
 - 2) If a State requirement does not have a federal counterpart, the Board may grant relief from the State requirements without following this Section.
- b) Relief from an MCL.
 - 1) As part of the justification for relief from an MCL under this Section, the PWS must demonstrate the following:
 - A) Because of characteristics of the raw water sources and alternative sources that are reasonably available to the system, the PWS cannot meet the MCL; and
 - B) The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:
 - i) The number of persons served by the system;
 - ii) Physical conditions related to engineering feasibility; and
 - iii) Costs of compliance; and
 - C) The variance will not result in an unreasonable risk to health.
 - 2) In any order granting relief under this subsection, the Board will prescribe a schedule for the following:
 - A) Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and
 - B) Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.

- 3) Schedule of compliance for relief from an MCL.
 - A) A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.
 - B) If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:
 - i) Document its rationale for the extended compliance schedule;
 - ii) Discuss the rationale for the extended compliance schedule in the required public notice and opportunity for public hearing; and
 - iii) Provide the shortest practicable time schedule feasible under the circumstances.
- c) Relief from a treatment technique requirement.
 - 1) As part of the justification for relief from a treatment technique requirement under this Section, the PWS must demonstrate that the treatment technique is not necessary to protect the health of persons served because of the nature of the raw water source.
 - 2) The Board may prescribe monitoring and other requirements as a condition for relief from a treatment technique requirement.
- d) The Board will hold at least one public hearing. In addition the Board will accept comments as appropriate pursuant to 35 Ill. Adm. Code 102 or 104.
- e) The Board will not grant relief from any of the following:
 - 1) From the MCL for total coliforms. However, the Board may grant a variance from the total coliform MCL of Section 611.325 for PWSs that prove that the violation of the total coliform MCL is due to persistent growth of total coliform in the distribution system, rather than from fecal or pathogenic contamination, from a treatment lapse or deficiency, or from a problem in the operation or maintenance of the distribution system.
 - 2) From any of the treatment technique requirements of Subpart B of this Part.

- From the residual disinfectant concentration (RDC) requirements of Sections 611.241(c) and 611.242(b).
- f) The Agency must promptly send USEPA the opinion and order of the Board granting relief pursuant to this Section. The Board may reconsider and modify a grant of relief, or relief conditions, if USEPA notifies the Board of a finding pursuant to section 1415 of the SDWA (42 USC 300g-4).
- g) In addition to the requirements of this Section, the provisions of Section 611.130 or 611.131 may apply to relief granted pursuant to this Section.

BOARD NOTE: Derived from 40 CFR 141.4 (2002) (2005), from section 1415(a)(1)(A) and (a)(1)(B) of the SDWA and from the "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems using Surface Water Sources,", incorporated by reference in Section 611.102. USEPA has reserved the discretion to review and modify or nullify Board determinations made pursuant to this Section at 40 CFR 142.23 (2002) (2005).

| (Source: | Amended at 30 Ill. Reg. | effective | |
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SUBPART B: FILTRATION AND DISINFECTION

Section 611.212 Groundwater under Direct Influence of Surface Water

The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water." The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water" on an individual basis. The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following:

- a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers.
- b) Well construction characteristics and geology with field evaluation.
 - The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water.
 - 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water.

- Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:
 - A) A surface sanitary seal using bentonite clay, concrete, or similar material,
 - B) A well casing that penetrates consolidated (slowly permeable) material; and
 - C) A well casing that is only perforated or screened below consolidated (slowly permeable) material.
- 4) A source that is less than 200 feet from any surface water is likely to be under the influence of surface water.
- c) Any structural modifications to prevent the direct influence of surface water and eliminate the potential for Giardia lamblia cyst contamination.
- d) Source water quality records. The following are indicative that a source is under the influence of surface water:
 - 1) A record of total coliform or fecal coliform contamination in untreated samples collected over the past three years;
 - 2) A history of turbidity problems associated with the source; or
 - 3) A history of known or suspected outbreaks of Giardia lamblia, Cryptosporidium or other pathogenic organisms associated with surface water that has been attributed to that source.
- e) Significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH.
 - 1) A variation in turbidity of 0.5 NTU or more over one year is indicative of surface influence.
 - 2) A variation in temperature of 9-nine Fahrenheit degrees or more over one year is indicative of surface influence.
- f) Significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH that closely correlate to climatological or surface water conditions are indicative of surface water influence.
 - 1) Evidence of particulate matter associated with the surface water; or
 - 2) Turbidity or temperature data that correlates to that of a nearby surface

water source.

- g) Particulate analysis: Significant occurrence of insects or other macroorganisms, algae, or large diameter pathogens such as Giardia lamblia is indicative of surface influence.
 - 1) "Large diameter" particulates are those over 7 seven micrometers.
 - 2) Particulates must be measured as specified in the "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems using Surface Water Sources,", incorporated by reference in Section 611.102.
- h) The potential for contamination by small-diameter pathogens, such as bacteria or viruses, does not alone render the source "under the direct influence of surface water."-

BOARD NOTE: Derived from the definition of "groundwater under the direct influence of surface water" in 40 CFR 141.2-(2002) (2005); from the Preamble at 54 Fed. Reg. 27489 (June 29, 1989); and from the USEPA "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems using Surface Water Sources,"; incorporated by reference in Section 611.102.

| (Source: | Amended at 30 Ill. Reg. | , effective |) |
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SUBPART G: LEAD AND COPPER

Section 611.359 Analytical Methods

Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature must be conducted using the methods set forth in Section 611.611(a).

- a) Analyses for lead and copper performed for the purposes of compliance with this Subpart G must only be conducted by laboratories that have been certified by USEPA or the Agency. To obtain certification to conduct analyses for lead and copper, laboratories must do the following:
 - 1) Analyze performance evaluation samples that include lead and copper provided by USEPA Environmental Monitoring and Support Laboratory or equivalent samples provided by the Agency; and
 - 2) Achieve quantitative acceptance limits as follows:
 - A) For lead: ± 30 percent of the actual amount in the performance evaluation sample when the actual amount is greater than or equal to 0.005 mg/ ℓ (the PQL for lead is 0.005 mg/ ℓ);

- B) For copper: ± 10 percent of the actual amount in the performance evaluation sample when the actual amount is greater than or equal to $0.050 \text{ mg/}\ell$ (the PQL for copper is $0.050 \text{ mg/}\ell$);
- C) Achieve the method detection limit (MDL) for lead (0.001 mg/ ℓ , as defined in Section 611.350(a)) according to the procedures in 35 Ill. Adm. Code 186 and appendix B to 40 CFR 136, Appendix B: "Definition and Procedure for the Determination of the Method Detection Limit--Revision 1.11" (2002) (2005), incorporated by reference in Section 611.102(c). This need only be accomplished if the laboratory will be processing source water composite samples under Section 611.358(a)(1)(C); and
- D) Be currently certified by USEPA or the Agency to perform analyses to the specifications described in subsection (a)(2) of this Section.

BOARD NOTE: Subsection (a) is derived from 40 CFR 141.89(a) and (a)(1) (2002) (2005).

b) The Agency must, by a SEP issued pursuant to Section 611.110, allow a supplier to use previously collected monitoring data for the purposes of monitoring under this Subpart G if the data were collected and analyzed in accordance with the requirements of this Subpart G.

BOARD NOTE: Subsection (b) is derived from 40 CFR 141.89(a)(2) (2002) (2005).

- c) Reporting lead and copper levels.
 - All lead and copper levels greater than or equal to the lead and copper PQL (Pb ≥ 0.005 mg/ ℓ and Cu ≥ 0.050 mg/ ℓ) must be reported as measured.
 - All lead and copper levels measured less than the PQL and greater than the MDL (0.005 mg/ ℓ > Pb > MDL and 0.050 mg/ ℓ > Cu > MDL) must be either reported as measured or as one-half the PQL set forth in subsection (a) of this Section (i.e., reported as 0.0025 mg/ ℓ for lead or 0.025 mg/ ℓ for copper).
 - 3) All lead and copper levels below the lead and copper MDL (MDL > Pb) must be reported as zero.

BOARD NOTE: Subsection (c) is derived from 40 CFR 141.89(a)(3) and (a)(4) (2002) (2005).

| (Source: | Amended at 30 Ill. Reg. | . effective | ` |
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SUBPART I: DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS, AND DISINFECTION BYPRODUCT PRECURSORS

Section 611.380 General Requirements

- a) The requirements of this Subpart I constitute NPDWRs.
 - The regulations in this Subpart I establish standards under which a CWS supplier or an NTNCWS supplier that adds a chemical disinfectant to the water in any part of the drinking water treatment process or which provides water that contains a chemical disinfectant must modify its practices to meet MCLs and MRDLs in Sections 611.312 and 611.313, respectively, and must meet the treatment technique requirements for DBP precursors in Section 611.385.
 - 2) The regulations in this Subpart I establish standards under which a transient non-CWS supplier that uses chlorine dioxide as a disinfectant or oxidant must modify its practices to meet the MRDL for chlorine dioxide in Section 611.313.
 - The Board has established MCLs for TTHM and HAA5 and treatment technique requirements for DBP precursors to limit the levels of known and unknown DBPs that may have adverse health effects. These DBPs may include chloroform, bromodichloromethane, dibromochloromethane, bromoform, dichloroacetic acid, and trichloroacetic acid.
- b) Compliance dates.
 - 1) CWSs and NTNCWSs. Unless otherwise noted, a supplier must comply with the requirements of this Subpart I as follows: A Subpart B system supplier serving 10,000 or more persons must comply with this Subpart I beginning January 1, 2002. A Subpart B system supplier serving fewer than 10,000 persons or a supplier using only groundwater not under the direct influence of surface water must comply with this Subpart I beginning January 1, 2004.
 - Transient non-CWSs. A Subpart B system supplier serving 10,000 or more persons and using chlorine dioxide as a disinfectant or oxidant must comply with any requirements for chlorine dioxide in this Subpart I beginning January 1, 2002. A Subpart B system supplier serving fewer than 10,000 persons and using chlorine dioxide as a disinfectant or oxidant or a supplier using only groundwater not under the direct influence of surface water and using that uses chlorine dioxide as a disinfectant or

oxidant must comply with any requirements for chlorine dioxide in this Subpart I beginning January 1, 2004.

- c) Each CWS or NTNCWS supplier regulated under subsection (a) of this Section must be operated by qualified personnel who meet the requirements specified in 35 Ill. Adm. Code 680.
- d) Control of disinfectant residuals. Notwithstanding the MRDLs in Section 611.313, a supplier may increase residual disinfectant levels in the distribution system of chlorine or chloramines (but not chlorine dioxide) to a level and for a time necessary to protect public health, to address specific microbiological contamination problems caused by circumstances such as, but not limited to, distribution line breaks, storm run-off events, source water contamination events, or cross-connection events.

| BOARD NOTE: Derived from 40 CFR 141.130 (2002) (2005). |
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| (Source: Amended at 30 Ill. Reg, effective |
| SUBPART N. INORGANIC MONITORING AND ANALYTICA |

Section 611.609 Determining Compliance

Compliance with the MCLs of Section 611.300 or 611.301 (as appropriate) must be determined based on the analytical results obtained at each sampling point.

REQUIREMENTS

- a) For suppliers that monitor at a frequency greater than annual, compliance with the MCLs for antimony, arsenic (effective January 22, 2004), asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium is determined by a running annual average at each sampling point. Effective January 22, 2004, if a system fails to collect the required number of samples, compliance (average concentration) will be based on the total number of samples collected.
 - 1) If the average at any sampling point is greater than the MCL, then the supplier is out of compliance.
 - 2) If any one sample would cause the annual average to be exceeded, then the supplier is out of compliance immediately.
 - 3) Any sample below the method detection limit must be calculated at zero for the purpose of determining the annual average.

BOARD NOTE: The "method detection limit" is different from the "detection limit, " as set forth in Section 611.600. The "method detection

limit" is the level of contaminant that can be determined by a particular method with a 95 percent degree of confidence, as determined by the method outlined in appendix B to 40 CFR 136, Appendix B, incorporated by reference at Section 611.102.

- b) For suppliers that monitor annually or less frequently, compliance with the MCLs for antimony, arsenic (effective January 22, 2004), asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium is determined by the level of the contaminant at any sampling point. If confirmation samples are required by the Agency, the determination of compliance will be based on the average of the annual average of the initial MCL exceedence and any Agency-required confirmation samples. Effective January 22, 2004, if a supplier fails to collect the required number of samples, compliance (average concentration) will be based on the total number of samples collected.
- c) Compliance with the MCLs for nitrate and nitrite is determined based on one sample if the levels of these contaminants are below the MCLs. If the levels of nitrate or nitrite in the initial sample exceed the MCLs, Section 611.606 requires confirmation sampling, and compliance is determined based on the average of the initial and confirmation samples.
- d) Arsenic sampling results must be reported to the nearest 0.001 mg/ ℓ .

| BOARD NOTE: Derived from 40 CFR 141.23(i) (2002) (2005). | |
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| (Source: Amended at 30 Ill. Reg, effective |) |
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SUBPART O: ORGANIC MONITORING AND ANALYTICAL REQUIREMENTS

Section 611.646 Phase I, Phase II, and Phase V Volatile Organic Contaminants

Monitoring of the Phase I, Phase II, and Phase V VOCs for the purpose of determining compliance with the MCL must be conducted as follows:

a) Definitions. As used in this Section the following have the given meanings:

"Detect" and "detection" mean that the contaminant of interest is present at a level greater than or equal to the "detection limit."

"Detection limit" means 0.0005 mg/ ℓ . BOARD NOTE: Derived from 40 CFR 141.24(f)(7), (f)(11), (f)(14)(i), and (f)(20) (2003) (2005). This is a "trigger level" for Phase I, Phase II, and Phase V VOCs inasmuch as it prompts further action. The use of the term "detect" in this Section is not intended to include any analytical capability of quantifying lower levels of any contaminant, or the "method

detection limit." Note, however, that certain language at the end of federal paragraph (f)(20) is capable of meaning that the "method detection limit" is used to derive the "detection limit." The Board has chosen to disregard that language at the end of paragraph (f)(20) in favor of the more direct language of paragraphs (f)(7) and (f)(11).

"Method detection limit," as used in subsections (q) and (t) of this Section means the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

BOARD NOTE: Derived from appendix B to 40 CFR 136, Appendix B (2003) (2005). The method detection limit is determined by the procedure set forth in appendix B to 40 CFR 136, Appendix B incorporated by reference in Section 611.102(c). See subsection (t) of this Section.

- b) Required sampling. Each supplier must take a minimum of one sample at each sampling point at the times required in subsection (u) of this Section.
- c) Sampling points.
 - Sampling points for a GWS. Unless otherwise provided by a SEP granted by the Agency pursuant to Section 611.110, a GWS supplier must take at least one sample from each of the following points: each entry point that is representative of each well after treatment.
 - 2) Sampling points for an SWS or mixed system supplier. Unless otherwise provided by a SEP granted by the Agency pursuant to Section 611.110, an SWS or mixed system supplier must sample from each of the following points:
 - A) Each entry point after treatment; or
 - B) Points in the distribution system that are representative of each source.
 - The supplier must take each sample at the same sampling point unless the Agency has granted a SEP pursuant to Section 611.110 that designates another location as more representative of each source, treatment plant, or within the distribution system.
 - 4) If a system draws water from more than one source, and the sources are combined before distribution, the supplier must sample at an entry point during periods of normal operating conditions when water is representative of all sources being used.

- BOARD NOTE: Subsections (b) and (c) of this Section derived from 40 CFR 141.24(f)(1) through $(f)(3) \cdot (2003) \cdot (2005)$.
- d) Each CWS and NTNCWS supplier must take four consecutive quarterly samples for each of the Phase I VOCs, excluding vinyl chloride, and Phase II VOCs during each compliance period, beginning in the compliance period starting in the initial compliance period.
- e) Reduction to annual monitoring frequency. If the initial monitoring for the Phase I, Phase II, and Phase V VOCs, as allowed in subsection (r)(1) of this Section, was completed by December 31, 1992, and the supplier did not detect any of the Phase I VOCs, including vinyl chloride; Phase II VOCs; or Phase V VOCs, then the supplier must take one sample annually beginning in the initial compliance period.
- f) GWS reduction to triennial monitoring frequency. After a minimum of three years of annual sampling, GWS suppliers that have not previously detected any of the Phase I VOCs, including vinyl chloride; Phase II VOCs; or Phase V VOCs must take one sample during each three-year compliance period.
- g) A CWS or NTNCWS supplier that has completed the initial round of monitoring required by subsection (d) of this Section and which did not detect any of the Phase I VOCs, including vinyl chloride; Phase II VOCs; and Phase V VOCs may apply to the Agency for a SEP pursuant to Section 611.110 that releases it from the requirements of subsection (e) or (f) of this Section. A supplier that serves fewer than 3300 service connections may apply to the Agency for a SEP that releases it from the requirements of subsection (d) of this Section as to 1,2,4-tri-chlorobenzene.
 - BOARD NOTE: Derived from 40 CFR 141.24(f)(7) and (f)(10) (2003) (2005), and the discussion at 57 Fed. Reg. 31825 (July 17, 1992). Provisions concerning the term of the waiver appear in subsections (i) and (j) of this Section. The definition of "detect," parenthetically added to the federal counterpart paragraph, is in subsection (a) of this Section.
- h) Vulnerability assessment. The Agency must consider the factors of Section 611.110(e) in granting a SEP from the requirements of subsection (d), (e), or (f) of this Section sought pursuant to subsection (g) of this Section.
- i) A SEP issued to a GWS pursuant to subsection (g) of this Section is for a maximum of six years, except that a SEP as to the subsection (d) of this Section monitoring for 1,2,4-trichlorobenzene must apply only to the initial round of monitoring. As a condition of a SEP, except as to a SEP from the initial round of subsection (d) of this Section monitoring for 1,2,4-trichlorobenzene, the supplier shall, within 30 months after the beginning of the period for which the waiver was issued, reconfirm its vulnerability assessment required by subsection (h) of this

Section and submitted pursuant to subsection (g) of this Section, by taking one sample at each sampling point and reapplying for a SEP pursuant to subsection (g) of this Section. Based on this application, the Agency must do either of the following:

- 1) If it determines that the PWS meets the standard of Section 611.610(e), issue a SEP that reconfirms the prior SEP for the remaining three-year compliance period of the six-year maximum term; or
- 2) Issue a new SEP requiring the supplier to sample annually.

BOARD NOTE: Subsection (i) of this Section does not apply to an SWS or mixed system supplier.

- j) Special considerations for a SEP for an SWS or mixed-system supplier.
 - 1) The Agency must determine that an SWS is not vulnerable before issuing a SEP pursuant to Section 611.110 to an SWS supplier. A SEP issued to an SWS or mixed system supplier pursuant to subsection (g) of this Section is for a maximum of one compliance period; and
 - 2) The Agency may require, as a condition to a SEP issued to an SWS or mixed supplier, that the supplier take such samples for Phase I, Phase II, and Phase V VOCs at such a frequency as the Agency determines are necessary, based on the vulnerability assessment.

BOARD NOTE: There is a great degree of similarity between 40 CFR 141.24(f)(7)-(2003) (2005), the provision applicable to GWSs, and 40 CFR 141.24(f)(10)-(2003) (2005), the provision for SWSs. The Board has consolidated the common requirements of both paragraphs into subsection (g) of this Section. Subsection (j) of this Section represents the elements unique to an SWSs or mixed system, and subsection (i) of this Section relates to a GWS supplier. Although 40 CFR 141.24(f)(7) and (f)(10) are silent as to a mixed system supplier, the Board has included a mixed system supplier with an SWS supplier because this best follows the federal scheme for all other contaminants.

- k) If one of the Phase I VOCs, excluding vinyl chloride; a Phase II VOC; or a Phase V VOC is detected in any sample, then the following must occur:
 - 1) The supplier must monitor quarterly for that contaminant at each sampling point that resulted in a detection.
 - 2) Annual monitoring.
 - A) The Agency must grant a SEP pursuant to Section 611.110 that allows a supplier to reduce the monitoring frequency to annual at a

- sampling point if it determines that the sampling point is reliably and consistently below the MCL.
- B) A request for a SEP must include the following minimal information:
 - i) For a GWS, two quarterly samples.
 - ii) For an SWS or mixed system supplier, four quarterly samples.
- C) In issuing a SEP, the Agency must specify the level of the contaminant upon which the "reliably and consistently" determination was based. Any SEP that allows less frequent monitoring based on an Agency "reliably and consistently" determination must include a condition requiring the supplier to resume quarterly monitoring pursuant to subsection (k)(1) of this Section if it violates the MCL specified by Section 611.311.
- 3) Suppliers that monitor annually must monitor during the quarters that previously yielded the highest analytical result.
- 4) Suppliers that do not detect a contaminant at a sampling point in three consecutive annual samples may apply to the Agency for a SEP pursuant to Section 611.110 that allows it to discontinue monitoring for that contaminant at that point, as specified in subsection (g) of this Section.
- A GWS supplier that has detected one or more of the two-carbon contaminants listed in subsection (k)(5)(A) of this Section must monitor quarterly for vinyl chloride as described in subsection (k)(5)(B) of this Section, subject to the limitation of subsection (k)(5)(C) of this Section.
 - A) "Two-carbon contaminants" (Phase I or II VOC) are the following:

1,2-Dichloroethane (Phase I)
1,1-Dichloroethylene (Phase I)
cis-1,2-Dichloroethylene (Phase II)
trans-1,2-Dichloroethylene (Phase II)
Tetrachloroethylene (Phase II)
1,1,1-Trichloroethylene (Phase I)
Trichloroethylene (Phase I)

B) The supplier must sample quarterly for vinyl chloride at each sampling point at which it detected one or more of the two-carbon contaminants listed in subsection (k)(5)(A) of this Section.

- C) The Agency must grant a SEP pursuant to Section 611.110 that allows the supplier to reduce the monitoring frequency for vinyl chloride at any sampling point to once in each three-year compliance period if it determines that the supplier has not detected vinyl chloride in the first sample required by subsection (k)(5)(B) of this Section.
- 1) Quarterly monitoring following MCL violations.
 - Suppliers that violate an MCL for one of the Phase I VOCs, including vinyl chloride; Phase II VOCs; or Phase V VOCs, as determined by subsection (o) of this Section, must monitor quarterly for that contaminant, at the sampling point where the violation occurred, beginning the next quarter after the violation.
 - 2) Annual monitoring.
 - A) The Agency must grant a SEP pursuant to Section 611.110 that allows a supplier to reduce the monitoring frequency to annually if it determines that the sampling point is reliably and consistently below the MCL.
 - B) A request for a SEP must include the following minimal information: four quarterly samples.
 - C) In issuing a SEP, the Agency must specify the level of the contaminant upon which the "reliably and consistently" determination was based. Any SEP that allows less frequent monitoring based on an Agency "reliably and consistently" determination must include a condition requiring the supplier to resume quarterly monitoring pursuant to subsection (l)(1) of this Section if it violates the MCL specified by Section 611.311.
 - D) The supplier must monitor during the quarters that previously yielded the highest analytical result.
- m) Confirmation samples. The Agency may issue a SEP pursuant to Section 610.110 to require a supplier to use a confirmation sample for results that it finds dubious for whatever reason. The Agency must state its reasons for issuing the SEP if the SEP is Agency-initiated.
 - 1) If a supplier detects any of the Phase I, Phase II, or Phase V VOCs in a sample, the supplier must take a confirmation sample as soon as possible, but no later than 14 days after the supplier receives notice of the detection.
 - 2) Averaging is as specified in subsection (o) of this Section.

- 3) The Agency must delete the original or confirmation sample if it determines that a sampling error occurred, in which case the confirmation sample will replace the original or confirmation sample.
- n) This subsection (n) corresponds with 40 CFR 141.24(f)(14), an optional USEPA provision relating to compositing of samples that USEPA does not require for state programs. This statement maintains structural consistency with USEPA rules.
- o) Compliance with the MCLs for the Phase I, Phase II, and Phase V VOCs must be determined based on the analytical results obtained at each sampling point. Effective January 22, 2004, if one sampling point is in violation of an MCL, the system is in violation of the MCL.
 - 1) Effective January 22, 2004, for a supplier that monitors more than once per year, compliance with the MCL is determined by a running annual average at each sampling point.
 - 2) Effective January 22, 2004, a supplier that monitors annually or less frequently whose sample result exceeds the MCL must begin quarterly sampling. The system will not be considered in violation of the MCL until it has completed one year of quarterly sampling.
 - 3) Effective January 22, 2004, if any sample result will cause the running annual average to exceed the MCL at any sampling point, the supplier is out of compliance with the MCL immediately.
 - 4) Effective January 22, 2004, if a supplier fails to collect the required number of samples, compliance will be based on the total number of samples collected.
 - 5) Effective January 22, 2004, if a sample result is less than the detection limit, zero will be used to calculate the annual average.
 - 6) Until January 22, 2004, for a supplier that conducts monitoring at a frequency greater than annual, compliance is determined by a running annual average of all samples taken at each sampling point.
 - A) If the annual average of any sampling point is greater than the MCL, then the supplier is out of compliance.
 - B) If the initial sample or a subsequent sample would cause the annual average to exceed the MCL, then the supplier is out of compliance immediately.

- C) Any samples below the detection limit must be deemed as zero for purposes of determining the annual average.
- 7) Until January 22, 2004, if monitoring is conducted annually, or less frequently, the supplier is out of compliance if the level of a contaminant at any sampling point is greater than the MCL. Until January 22, 2004, if a confirmation sample is taken, the determination of compliance is based on the average of two samples.
- p) This subsection (p) corresponds with 40 CFR 141.24(f)(16), which USEPA removed and reserved. This statement maintains structural consistency with the federal regulations.
- q) Analysis under this Section must only be conducted by laboratories that have received certification by USEPA or the Agency according to the following conditions:
 - 1) To receive certification to conduct analyses for the Phase I VOCs, excluding vinyl chloride; Phase II VOCs; and Phase V VOCs, the laboratory must do the following:
 - A) It must analyze performance evaluation (PE) samples that include these substances provided by the Agency pursuant to 35 Ill. Adm. Code 186.170;
 - B) It must achieve the quantitative acceptance limits under subsections (q)(1)(C) and (q)(1)(D) of this Section for at least 80 percent of the regulated organic contaminants in the PE sample;
 - C) It must achieve quantitative results on the analyses performed under subsection (q)(1)(A) of this Section that are within \pm 20 percent of the actual amount of the substances in the PE sample when the actual amount is greater than or equal to 0.010 mg/ ℓ ;
 - D) It must achieve quantitative results on the analyses performed under subsection (q)(1)(A) of this Section that are within \pm 40 percent of the actual amount of the substances in the PE sample when the actual amount is less than 0.010 mg/ ℓ ; and
 - E) It must achieve a method detection limit of 0.0005 mg/ℓ, according to the procedures in <u>appendix B to 40 CFR 136, Appendix B</u>, incorporated by reference in Section 611.102.
 - 2) To receive certification to conduct analyses for vinyl chloride the laboratory must do the following:

- A) It must analyze PE samples provided by the Agency pursuant to 35 Ill. Adm. Code 186.170;
- B) It must achieve quantitative results on the analyses performed under subsection (q)(2)(A) of this Section that are within ± 40 percent of the actual amount of vinyl chloride in the PE sample;
- C) It must achieve a method detection limit of 0.0005 mg/ ℓ , according to the procedures in <u>appendix B to 40 CFR 136, Appendix B</u>, incorporated by reference in Section 611.102; and
- D) It must obtain certification pursuant to subsection (q)(1) of this Section for Phase I VOCs, excluding vinyl chloride; Phase II VOCs; and Phase V VOCs.
- r) This subsection (r) corresponds with 40 CFR 141.24(f)(18), an obsolete provision that relates to the initial compliance period from 1993 through 1995. This statement maintains consistency with the federal regulations.
- s) The Agency shall, by a SEP issued pursuant to Section 611.110, increase the number of sampling points or the frequency of monitoring if it determines that it is necessary to detect variations within the PWS.
- Each laboratory certified for the analysis of Phase I, Phase II, or Phase V VOCs pursuant to subsection (q)(1) or (q)(2) of this Section shall do the following:
 - Determine the method detection limit (MDL), as defined in <u>appendix B to</u> 40 CFR 136, Appendix B, incorporated by reference in Section 611.102, at which it is capable of detecting the Phase I, Phase II, and Phase V VOCs; and,
 - 2) Achieve an MDL for each Phase I, Phase II, and Phase V VOC that is less than or equal to $0.0005 \text{ mg/}\ell$.
- u) Each supplier must monitor, within each compliance period, at the time designated by the Agency by SEP pursuant to Section 611.110.
- v) A new system supplier or a supplier that uses a new source of water that begins operation after January 22, 2004 must demonstrate compliance with the MCL within a period of time specified by a permit issued by the Agency. The supplier must also comply with the initial sampling frequencies specified by the Agency to ensure the supplier can demonstrate compliance with the MCL. Routine and increased monitoring frequencies must be conducted in accordance with the requirements in this Section.

BOARD NOTE: Derived from 40 CFR 141.24(f) (2003) (2005).

| (Source | e: Amended at 30 Ill. | D a g | affactiva | |) |
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| (Source | e. Amended at 50 m. | , | | | _) |
| Section | n 611.Appendix D | | ate Method for the Escherichia Coli fr | | |
| Autoar | nalysis Colilert Presenc | e-Absence (AC | P-A) Method. | | |
| positiv sufficie | C P-A test format must e denoting the presencent reagent to receive 1 as, Branford Connection | e of total colifor 00 mℓ of sampl | ms in that sample) | or a single vesse | el containing |
| The A | C P-A method must be | performed as fo | llows: | | |
| 1. | For the 10-tube method vessel method, add 10 | * | • | | or the single- |
| 2. | Dissolve the reagent p | owder by agitat | ion. (This should 1 | produce a colorle | ess solution.) |
| 3. | Incubate the test tubes | or vessel at 35° | °C for 24 hours. | | |
| 4. | Development of yello either the test tube or | _ | tion denotes the pr | resence of total c | coliforms in |
| 5. | Expose each positive Fluorescence specific | · · | | ` | m) light source. |
| BOARD NOTE: Derived from S. Edberg, M. Allen & D. Smith, "National Field Evaluation of a Defined Substrate Method for the Simultaneous Detection of Total Coliforms and Escherichia coli from Drinking Water: Comparison with Presence-Absence Techniques,", Applied and Environmental Microbiology, vol. 55, pp. 1003-1008, as incorporated by reference at 40 CFR 141.21(f)(6)(iii)-(2002) (2005). This method is for use in conjunction with the requirements of Section 611.526. | | | | | |
| (Source | e: Amended at 30 Ill. | Reg, | effective | | _) |

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, certify that the Board

adopted the above opinion and order on July 20, 2006, by a vote of 4-0.

Dorothy M. Gunn, Clerk Illinois Pollution Control Board