

**IN CIRCUIT COURT OF COOK COUNTY, ILLINOIS  
COUNTY DEPARTMENT, CHANCERY DIVISION**

American Beverage Association, International )  
Bottled Water Association, Illinois Retail )  
Merchants Association and Illinois Food )  
Retailers Association, )  
 )  
Plaintiffs, )  
 )  
v. )  
 )  
City of Chicago, )  
 )  
Defendant. )

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Honorable  
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**COMPLAINT FOR DECLARATORY JUDGMENT  
THAT CHICAGO'S BOTTLED WATER TAX IS INVALID**

Plaintiffs American Beverage Association, International Bottled Water Association, Illinois Retail Merchants Association, and Illinois Food Retailers Association, by and through their counsel, Jenner & Block LLP, allege and state the following.

**Background:  
City of Chicago's Tax on Bottled Water**

1. Plaintiffs seek a declaratory judgment that the City of Chicago's imposition of a tax of \$0.05 per bottle on the sale within the City of "bottled water," defined as "all water which is sealed in bottles offered for sale for human consumption," is invalid and unconstitutional. The tax is imposed on water sold in both plastic and glass bottles. The City Council passed the bottled water tax on November 13, 2007, effective January 1, 2008. For the reasons stated below, the City has no authority to impose a tax on bottled water, and the tax is unconstitutional because it violates the Uniformity Clause of the Illinois Constitution. A copy of the Chicago bottled water ordinance is attached as Exhibit A.

2. Chicago's bottled water tax is an unlawful retailers' occupation tax that the City has no power to impose. In the Home Rule Municipal Retailers' Occupation Tax Act ("Home

Rule Retail Sales Tax Act”), 65 ILCS 5/8-11-1, the General Assembly unequivocally prohibited Chicago and other home rule municipalities from imposing a tax on “sales of food for human consumption that is to be consumed off the premises where it is sold....” Because bottled water is a food, and is to be consumed off the premises where sold, the City has no home rule or other authority to impose a tax on sales of this product. The City’s attempt to tax sales of bottled water is unauthorized by law and is levied on food, which is property excluded from taxation by a home rule municipality.

3. Similarly, the City has no authority to impose a tax on bottled water under the Home Rule Municipal Soft Drink Retailers’ Occupation Tax (“Chicago Soft Drink Tax Act”), 65 ILCS 5/8-11-6b, because that Act expressly excludes “non-carbonated water” from the definition of “soft drink.”

4. Chicago’s ordinance also violates the Uniformity Clause of the Illinois Constitution, Article IX, §2, because it imposes a tax exclusively on non-carbonated bottled water not containing additives, but not on other beverages sold in direct competition with bottled water, most of which contain over 97% water, and all of which, like bottled water, are sold in sealed plastic or glass containers. There is no real and substantial difference between the products that are taxed and those that are not taxed, and the classification established by the ordinance bears no reasonable relationship to the object of the ordinance.

#### **THE PARTIES**

5. Plaintiff American Beverage Association (“ABA”) is an association of the producers, marketers, distributors and bottlers of virtually every non-alcoholic refreshment beverage sold in the United States including bottled water, juice drinks, soft drinks, sports drinks, teas, coffees, dairy and many other beverages. ABA is a Washington, D.C. corporation with its

principal place of business in Washington, D.C. ABA brings this action to vindicate the interests of its members directly and adversely affected by the unlawful Chicago bottled water tax.

6. Plaintiff International Bottled Water Association (“IBWA”) is a worldwide association of bottlers, suppliers, and distributors of bottled water. IBWA represents all segments of the bottled water industry, including spring, mineral, artesian, sparkling, well, groundwater and purified bottled waters. IBWA member companies range in size from family owned and operated water bottlers to diversified international food companies. IBWA is a Washington, D.C. corporation with its principal place of business in Alexandria, Virginia. IBWA brings this action to vindicate the interests of its members directly and adversely affected by the unlawful Chicago bottled water tax.

7. Plaintiff Illinois Retail Merchants Association (“IRMA”) is an Illinois corporation with its principal place of business in Chicago, Cook County, Illinois. IRMA serves as the voice of retailing and the business community in state government. IRMA is one of the largest state retail organizations in the United States, representing more than 23,000 stores. IRMA’s membership includes the nation’s largest chains as well as independent stores in towns across Illinois. IRMA brings this action to vindicate the interests of its members directly and adversely affected by the unlawful Chicago bottled water tax.

8. Plaintiff Illinois Food Retailers Association (“IFRA”) is an Illinois corporation with its principal place of business in Lombard, Illinois. IFRA is a non-profit trade association dedicated to the profitability and growth of locally owned and owner-operated retail food stores and the suppliers who service those stores. IFRA brings this action to vindicate the interests of its members directly and adversely affected by the unlawful Chicago bottled water tax.

9. Members of ABA, IBWA, IRMA and IFRA sell bottled water, both at wholesale and retail, in the City of Chicago. As more fully set out in paragraphs 20 through 26 below, imposition of the bottled water tax will adversely impact those members. Protection of their members' interests is among the principal purposes of each plaintiff Association. The Associations seek to protect the interests of their members subject to the unlawful bottled water tax. Each Association has specialized expertise, knowledge and research resources concerning the production and sale of bottled water which will assist the Court in resolving the issues raised in this lawsuit. Neither the claims asserted, nor the relief requested, require the participation of the Association's individual members in the lawsuit. One or more members of each Association will file a tax return and pay the Chicago bottled water tax on or before January 25, 2008, the due date for the initial bottled water tax return required to be filed. By agreement with the City of Chicago, each payment made will be deemed to be made under protest.

10. Defendant City of Chicago is an Illinois home rule municipality.

### **THE CONTROVERSY**

11. Article VII, §6(e) of the Illinois Constitution prohibits home rule municipalities from imposing occupation taxes unless such taxes are expressly authorized by the Illinois General Assembly. Historically, the sale of food for off-premises consumption has been taxed through the imposition of both state and municipal Retailer Occupation Taxes, commonly referred to as sales taxes.

12. Until 1988, the General Assembly permitted Illinois home rule municipalities to impose a tax on food which was not consumed on the premises where it was sold. Many municipalities in fact imposed such a tax. Those taxes varied widely in amount and application.

13. In 1988 the Illinois General Assembly determined, as a matter of public policy, that it was in the best interests of the people of Illinois that home rule municipalities be prohibited from taxing food not consumed on the premises where sold, because a tax on groceries was severely regressive and fell most heavily on lower income families who spent a larger share of their income on food. That public policy determination was and is embodied in the Illinois Home Rule Municipal Retailers' Occupation Tax Act, 65 ILCS 5/8-11-1, which authorizes home rule municipalities to impose retailer occupation taxes on persons selling tangible personal property, but expressly prohibits such a tax on food:

The corporate authorities of a home rule municipality may impose a tax upon all persons engaged in the business of selling tangible personal property...at retail in the municipality on the gross receipts from these sales made in the course of such business.... *On and after September 1, 1991, this additional tax may not be imposed on the sales of food for human consumption that is to be consumed off the premises where it is sold* (other than alcoholic beverages, soft drinks and food that has been prepared for immediate consumption). (Emphasis added)

14. There is no doubt that under this statute, the City of Chicago cannot impose a retailers' occupation tax on bottled water. The Illinois Retailers' Occupation Tax Regulations, 86 Ill. Adm. Code 130.310(b)(1), expressly include bottled water in the definition of "food." Those regulations provide, in pertinent part, that "*food is any...liquid...intended by the seller primarily for human internal consumption, whether simple, compound or mixed, including foods such as...bottled water... .*" (Emphasis added)

15. Additionally, the City of Chicago Municipal Code expressly includes bottled water in the definition of "food." Thus, Chapter 4-8 ("Food Establishments") of the Chicago Municipal Code defines the term "*food*" to include "packaged gum, candy, and confections and *bottled or canned water...if the package, bottle or can includes a manufacturer's quality assurance date.*" (Emphasis added) Bottled water includes quality assurance dates.

16. While the General Assembly has expressly authorized the City to impose a tax on retailers who sell alcohol and soft drinks, bottled water is neither alcohol nor a soft drink. The Retailers' Occupation Tax Act (35 ILCS 120/2-10), the Chicago Soft Drink Tax Act (65 ILCS 5/8-11-6b), and Chicago Municipal Code (§3-45-020.E) define "soft drink" as "any complete, finished, ready-to-use, non-alcoholic drink, whether carbonated or not, including but limited to soda water, cola, fruit juice, vegetable juice, carbonated water, and all other preparations commonly known as soft drinks of whatever kind or description... ." However, both Acts and the Code expressly exclude "non-carbonated water" from the definition of "soft drink" and therefore bottled water cannot be taxed under the Chicago Soft Drink Tax Act.

17. Notwithstanding the statutory and constitutional restrictions on its home rule authority, on November 13, 2007, for revenue purposes, the City Council of the City of Chicago amended Title 3 of the Municipal Code of Chicago to add the Chicago Bottled Water Tax (§3-43-010 et seq. of the Municipal Code of Chicago). Section 3-43-030 provides, in pertinent part:

A tax is hereby imposed on the retail sale of bottled water in the City. This tax shall be paid by the purchaser, and nothing in this chapter shall be construed to impose a tax on the occupation of retail or wholesale bottled water dealer. The tax shall be levied at the rate of \$0.05 per bottle.

18. Chapter 3-43, the "bottled water tax," became effective on January 1, 2008.

19. The City of Chicago is fully aware that the Illinois Home Rule Municipal Retailers' Occupation Tax Act prohibits the City from imposing a tax on the sale of bottled water. The City recognizes this exclusion. § 3-40-010(b)(i). Therefore, in an attempt to circumvent the clearly expressed intent of the Illinois General Assembly that home rule municipalities are prohibited from imposing a tax on food, the City of Chicago seeks to characterize, by "magic words," its bottled water tax as a tax on the purchasers of bottled water rather than a tax on the occupation of selling bottled water.

20. The City of Chicago cannot disguise the fact that the bottled water tax is in fact an occupation tax because the collection, remittance, and enforcement mechanisms established by the ordinance disclose the true nature of the tax. All of the obligations imposed on a seller by an occupation tax are imposed on retail and wholesale bottled water dealers by the Chicago bottled water tax. In particular, the ordinance imposes the collection and remittance obligations on the bottled water retailers and wholesalers who are liable for any uncollected or unpaid taxes.

21. The bottled water tax is collected and remitted in the first instance by the wholesale bottled water dealer when making a sale to a bottled water retailer in the City. §3-43-050 (A) and (D). A wholesale bottled water dealer is defined as any person who engages in the business of selling or supplying bottled water for resale in the City. §3-43-202. The retail bottled water dealer is then required to collect the tax from the retail purchaser of the tax as reimbursement for its payment of the tax in the first instance. §3-43-050 (B). A retail bottled water dealer is defined as any person who engages in the business of the retail sale of bottled water in the City. §3-43-020. If the wholesaler does not collect the tax, the retailer is then required to self-assess and remit the tax directly to the City and is permitted to collect the tax from the purchaser. §3-43-050 (B) and (C).

22. In addition, on or before January 25, 2008, every retail bottled water dealer must inventory its bottled water as of January 4, 2008 (the effective date of the tax is January 1, 2008, but the City has extended the inventory date to January 4, 2008 to take into account the holidays) and remit the corresponding tax to the City, and is then permitted to reimburse itself for the tax when making sales to retail purchasers. §3-43-070 (A). Moreover, if the tax rate increases, the retail bottled water dealer must make a similar inventory and tax payment. §3-43-070 (B). Retail dealers are subject to substantial penalties for failing to file a return or pay the tax,

including a penalty of \$100 for each location that fails to provide such an inventory. A copy of the Chicago Department of Revenue New Bottled Water Tax Announcement, including as attachments the floor tax return, is attached as Exhibit B. Both wholesalers and retailers are required to keep books and records of their bottled water sales activities. §3-43-080.

23. Further, wholesalers and retailers are permitted to retain a commission of 1% of the tax they remit to the City as reimbursement for “expenses incurred in collecting the tax, keeping records, preparing and filing returns, remitting the tax and supplying data upon request” when the tax is timely remitted. §3-43-100. This commission is similar to the commissions provided to wholesalers and retailers for collecting other occupation taxes. *See, e.g.*, 35 ILCS 120/3 (1.75% for Retailers’ Occupation Tax).

24. Finally, every wholesale bottled water dealer “in existence” on January 1, 2008 is required to register with the City, and all new such businesses are required to register within 30 days of commencing business. §3-43-120.

25. The collection, remittance and penalty provisions imposed on wholesalers and retailers by the ordinance confirm that despite the City’s attempt to nominally shift the incidence of the tax in the ordinance to the purchaser, the practical operation and effect of the ordinance are to impose the true incidence of the tax on wholesalers and retailers of bottled water. They pay the tax in the first instance, and are penalized severely for failing to comply with the law. This collection scheme is essentially no different than that imposed under the sales tax.

26. The ordinance provides that if the retailer does not include the tax on sales to a purchaser, the purchaser must pay the tax “directly to the department in the same manner and same form as a retail bottled water dealer.” The retail purchaser, however, is simply admonished to pay the tax, with no real threat of enforcement for any failure to pay the tax. In fact, there is



no requirement in the ordinance that the tax be separately stated, or broken out in any way from the selling price of the water. Thus the retail purchaser has no meaningful way to comply with his or her purported payment obligation if a retailer fails to make the collection. Moreover, no procedure has been established for retail purchasers to pay the City. These facts demonstrate that the tax is not in reality imposed on the purchaser.

27. As set out fully in paragraphs 20 through 26, the City of Chicago cannot, by the simple expedient of invoking “magic words” which characterize the tax as a tax on purchasers, circumvent the plain and unambiguous intent of the Illinois General Assembly to bar home rule municipalities from imposing taxes on food. Equally ineffectual is the City’s attempt to evade the prohibition on the taxation of food by purporting to measure the tax on bottled water by the bottle or container rather than by the retailers’ gross receipts for the sale of water. The General Assembly has unequivocally prohibited a home rule municipality from taxing food. The City of Chicago cannot evade that prohibition by mere artful wordsmithing, and any interpretation of the relevant statutes, 65 ILCS 5/8-11-1 and 65 ILCS 5/8-11-6a, which sanctions such a decidedly absurd result is contrary to law, basic principles of statutory construction, and common sense.

28. The bottled water tax is in practical effect imposed on wholesalers as well as retailers. The tax not only violates the express prohibition contained in the Home Rule Municipal Retailers’ Occupation Tax Act on a home rule municipality’s power to tax food, but also violates Article VII, §6(e) of the Illinois Constitution, which prohibits home rule municipalities from imposing occupation taxes other than as expressly authorized by the General Assembly. The Illinois General Assembly has not authorized an occupation tax on wholesale or retail bottled water dealers.

29. In the City of Chicago, a myriad of beverages, other than alcoholic beverages and soft drinks, are sold in plastic and glass containers for human consumption to be consumed off the premises where the beverages are sold. Such beverages include milk and dairy products, teas, coffee, sports and energy drinks and other beverages. The vast majority of these beverages contain more than 90% water. Black tea, for example, is 99.7% water; coffee is 99.37% water; and energy drinks are 98.35% water. Nevertheless, the bottled water tax applies only to non-carbonated water even though coffee, tea, and other predominantly water-based non-carbonated beverages are readily available and inexpensive.

30. The City's bottled water tax is premised on the City's assertion that Chicago tap water and bottled water are essentially identical and therefore interchangeable. That premise is demonstrably false.

31. Unlike Chicago tap water, which is regulated by the United States EPA and the Illinois EPA, bottled water is subject to strict regulation by the United States Food and Drug Administration ("FDA") and the Illinois Department of Health. The FDA has adopted detailed "Standards of Identity," "Standards of Quality" and other requirements for bottled water that extensively regulate the safety, facilities, methods, practices, and controls used in the processing, bottling, holding, and shipping of bottled water. *See generally* 21 CFR, Title 21, Parts 129 and 165, a copy of which is attached as Exhibit C. Likewise, the FDA dictates and monitors plant construction and design, sanitary facilities, sanitary operations, equipment and procedures, and production and process controls. Pursuant to FDA requirements, the containers must be "adequately cleaned, sanitized, and inspected just prior to being filled, capped, and sealed." Bottled water is also subject to strict regulation by the State of Illinois which imposes

requirements essentially identical to those of the FDA. Safe Bottled Water Act, 410 ILCS 655/1; Illinois Food, Drug and Cosmetic Act, 410 ILCS 620/21.

32. Moreover, unlike Chicago tap water, many bottled waters contain minerals or other trace elements not available in City tap water.

33. For a substantial number of the City's populace, tap water is not always a feasible alternative to bottled water. For reasons of personal convenience, preference, or necessity, in a number of circumstances such as picnics, remote workplace locations, health clubs, running or bicycling, marathons and other events, tap water is not a viable substitute for bottled water.

34. The bottled water tax will not only harm the plaintiffs' members who sell bottled water within city limits, but also will adversely affect the economy of the City of Chicago. The bottled water industry presently supports approximately 4500 jobs and provides \$270 million in wages in the City of Chicago. With its suppliers, the bottled water industry generates nearly \$1.9 billion in total economic activity in the City. The bottled water tax will raise the price of a case of bottled water at the grocery store by 30%. 90% of bottled water is sold in cases.

## **CLAIMS**

### **COUNT I**

#### **DECLARATORY JUDGMENT THAT THE BOTTLED WATER TAX VIOLATES THE HOME RULE MUNICIPAL RETAILERS' OCCUPATION ACT, 65 ILCS 5/8-11-1, AND ARTICLE VII, §6(e) OF THE ILLINOIS CONSTITUTION**

35. Plaintiffs reallege the allegations contained in paragraphs 1 through 34 as if fully set forth herein.

36. A substantial and actual controversy within the meaning of 735 ILCS 5/2-701 exists between plaintiffs and defendant, who have adverse legal interests as to the legality of the bottled water tax. The City of Chicago contends that it has power to impose the bottled water

tax. Plaintiffs assert that the City of Chicago is expressly prohibited by state law and the Illinois Constitution from imposing the bottled water tax.

37. As fully set forth in paragraphs 14 and 15 above, bottled water is food for human consumption to be consumed off the premises where it is sold, and the practical effect of the bottled water tax--the City's "magic words" and characterization of the tax as a "unit" tax notwithstanding--is a tax on the sale of food. Both 65 ILCS 5/8-11-1 and its legislative history squarely prohibit the City of Chicago from imposing a tax on bottled water.

38. As fully set forth in paragraphs 11 and 28 above, Article VII, §6(e) of the Illinois Constitution permits home rule municipalities to impose only those occupation taxes expressly authorized by the Illinois General Assembly. The bottled water tax is a tax on the occupation of engaging in business as a retail or wholesale bottled water dealer, but the Illinois General Assembly has not authorized any home rule municipality to impose a tax on the occupation of engaging in business as a bottled water wholesaler. The bottled water tax thus violates Article VII, §6(e) of the Illinois Constitution.

39. The substantial and actual controversy between the parties is sufficiently immediate and real to warrant the issuance of a declaratory judgment. Plaintiffs and their members are in immediate danger of sustaining a direct injury as a result of enforcement of the bottled water tax. The underlying issues are neither moot nor premature. Without a ruling on the legality of the bottled water tax, the interests of plaintiffs and Chicago consumers will be impaired and compromised.

## **COUNT II**

### **DECLARATORY JUDGMENT THAT THE BOTTLED WATER TAX VIOLATES ARTICLE IX, §2 OF THE ILLINOIS CONSTITUTION**

40. Plaintiffs reallege the allegations contained in paragraphs 1 through 34 and paragraphs 36 and 39 as if fully set forth herein.

41. Article IX, §2 of the Illinois Constitution of 1970 (the “Uniformity Clause”) provides “[I]n any law classifying the subjects or objects of non-property taxes or fees, the classes shall be reasonable and the subjects and objects within each class shall be taxed uniformly.”

42. In enacting the Uniformity Clause of the Illinois Constitution, the framers expressly provided that the Uniformity Clause should provide the taxpayers of Illinois with protections more stringent than those found in the equal protection clause of the United States Constitution:

Uniform treatment of unlike classes is just as unreasonable as non-uniform treatment of like classes. \*\*\* Classification is essential. It is also essential that the General Assembly be bound by a standard of reasonableness. The federal due process and equal protection clauses provide a minimum standard. The Committee believes, however, that Illinois taxpayers should receive added protection in the state constitution. \*\*\* The committee recommendation leaves the Illinois courts free to apply standards of reasonableness which are more rigorous than those developed under the federal constitution.

7 Record of Proceedings, Sixth Illinois Constitutional Convention 2072.

43. The bottled water tax is a tax on an arbitrarily and extremely narrow sub-set of water-based beverages: non-carbonated water not containing any additives or supplements sold in plastic and glass bottles. There is no real or substantial difference between non-carbonated water not containing any additives or supplements, which is taxed, and non-carbonated water containing miniscule additives or supplements, or the enormous variety of other water-based

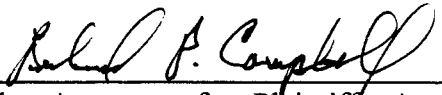
beverages which compete directly for the consumers' dollars sold in plastic and glass bottles, neither of which are taxed. Many of the beverages which the bottled water tax does not purport to reach contain over 98% water. The Chicago Bottled Water Tax Guide distributed by the Chicago Department of Revenue lists 12 categories of bottled water which the City arbitrarily treats as "non-taxable." A copy is attached as Exhibit D. Classifying non-carbonated bottled water as the object of a tax while not taxing mineral water, distilled water, water containing miniscule amounts of flavoring, vitamins or nutritional additives, or other beverages which are all but 100% water, sold in plastic or glass bottles, is not based on any real and substantial difference between items taxed and not taxed and therefore violates the Uniformity Clause of the Illinois Constitution. Moreover, the bottled water tax violates the Uniformity Clause of the Illinois Constitution because the tax and the classification established by the ordinance bear no reasonable relationship to the object of the ordinance.

WHEREFORE, plaintiffs respectfully request that this Court enter judgment in favor of plaintiffs and against defendant the City of Chicago, and grant plaintiffs the following relief:

1. That the Court declare that the City of Chicago bottled water tax violates the Home Rule Municipal Retailers' Occupation Tax Act, 65 ILCS 5/8-11-1, and is therefore null and void.
2. That the Court declare that the City of Chicago bottled water tax violates Article VII, §6(e) of the Illinois Constitution, and is therefore null and void.
3. That the Court declare that the City of Chicago bottled water tax violates Article IX, §2 of the Illinois Constitution, and is therefore null and void.

4. That the Court grant such other and further relief as it deems equitable, and such incidental relief, including damages, costs, and attorneys' fees as warranted.

Dated: January 4, 2008

By:   
One of the Attorneys for Plaintiffs American  
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and Illinois Food Retailers Association

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## REVENUE ORDINANCE FOR 2008

**SECTION 2.** Title 3 of the Municipal Code of Chicago is hereby amended by adding a new Chapter 3-43 as follows:

### **3-43-010 Title.**

This chapter shall be known and cited as the "Chicago Bottled Water Tax Ordinance," and the tax herein imposed shall be known and cited as the "Chicago Bottled Water Tax."

### **3-43-020 Definitions.**

Whenever any of the following words, terms or phrases are used in this chapter, they shall have the following meanings:

"Bottle" means any closed container which is labeled by a manufacturer of bottled water and used to contain or convey bottled water.

"Bottled water" means all water which is sealed in bottles offered for sale for human consumption. The term does not include any beverage defined as a "soft drink" under Section 3-45-020 of the Chicago Soft Drink Tax Ordinance, Chapter 3-45 of this Code.

"Department" or "department of revenue" means the department of revenue of the City.

"Director" or "director of revenue" means the director of revenue of the City.

"Manufacturer" means any processor, bottler or other person who fills or refills a bottle



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with bottled water and others engaged in purifying, filtrating or any other alteration of water for the purpose of selling or reselling bottled water.

"Person" is defined as provided in Section 1-4-090 of this Code.

"Purchaser" means any person who purchases in a retail sale.

"Sale" or "purchase" means any transfer of ownership or title or both, any exchange or barter, in any manner or by any means whatsoever for a valuable consideration.

"Retail bottled water dealer" or "retailer" means any person who engages in the business of the retail sale of bottled water in the City.

"Retail sale" means any sale to a person for use or consumption, and not for resale.

"Wholesale bottled water dealer" or "wholesaler" means any person who engages in the business of selling or supplying bottled water to any person for resale in the City.

### **3-43-030 Tax imposed.**

A tax is hereby imposed on the retail sale of bottled water in the City. This tax shall be paid by the purchaser, and nothing in this chapter shall be construed to impose a tax on the occupation of retail or wholesale bottled water dealer. The tax shall be levied at the rate of \$0.05 per bottle.

### **3-43-040 Liability for payment.**

The ultimate incidence and liability for payment of the tax herein levied is to be borne by the purchaser of bottled water. It shall be a violation of this chapter for a retail bottled water dealer to fail to include the tax imposed herein in the sale price of the bottled water, or to otherwise absorb such tax.

### **3-43-050 Collection.**

A. Except as otherwise provided herein, the tax levied herein shall be collected by each wholesale bottled water dealer who sells bottles of water to a retail bottled water dealer located in

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the City. The wholesale bottled water dealer shall remit the tax and file returns in accordance with Section 3-43-060 of this chapter.

B. Any wholesale bottled water dealer who shall pay the tax levied by this chapter shall collect the tax from each retail bottled water dealer in the city to whom the sale of said bottled water is made, and any such retail bottled water dealer shall in turn then collect the tax from the retail purchaser of said bottled water.

C. If any retailer located in the City shall receive or otherwise obtain bottled water upon which the tax imposed herein has not been collected by any wholesale bottled water dealer, then the retailer shall collect such tax and remit it directly to the department of revenue in accordance with Section 3-43-060 of this chapter.

D. If a wholesale bottled water dealer sells bottled water to a purchaser for use or consumption and not for resale, such wholesale bottled water dealer shall collect the tax imposed herein from such purchaser and remit it to the department in the same manner as sales to retail bottled water dealers.

### **3-43-060 Tax payments and returns.**

A. All tax payments and remittances shall be made in accordance with either Section 3-4-187 (payment of actual tax liabilities) or Section 3-4-188 (payment of estimated taxes).

B. All tax returns shall be filed with the department on an annual basis on or before August 15 of each year in accordance with Sections 3-4-186 and 3-4-189 of this Code.

### **3-43-070 Returns and payments required upon implementation of the tax and after future tax rate increases.**

A. On or before January 25, 2008, every retail bottled water dealer shall file with the department, on a form prescribed by the director, a tax return reporting the inventory of bottled water in the retail dealer's possession or control on the effective date of this section. The retail dealer shall include with the tax return any tax due on the inventory of bottled water in its control and possession for which all applicable tax has not been collected. The retail dealer shall in turn collect the tax from its retail purchasers.

B. Every retail bottled water dealer who possesses bottled water purchased prior to the effective date of a Chicago bottled water tax increase shall file with the department, on a form prescribed by the director, a tax return attesting to the quantities of bottled water in its possession as of the last day prior to the tax increase and pay to the department the amount of tax due as a result of each rate increase. The retail dealer shall in turn collect the tax from its retail purchasers. Each such tax return and payment due under this subsection shall be filed and received by the department by the 24th day following the effective date of each tax increase.

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C. Every retail bottled water dealer required to file a tax return under subsection A or B of this section who does not file such tax return by its due date, or alternatively does not provide all required information on such tax return, or fails to pay all required tax due computed thereon, shall be subject to a penalty of \$100.00 per business location required to be reported on the tax return, in addition to all other penalties and interest that may be due under the provisions of the Uniform Revenue Procedures Ordinance, Chapter 3-4 of this Code.

D. If the director determines that a party to whom the penalty in subsection C of this section has accrued had reasonable cause for paying late, underpaying the applicable tax, or filing a late or incomplete tax return, then the applicable penalty shall be waived.

E. The director, or his or her designee, may at any time during the statute of limitations outlined in Section 3-4-120 of this Code, examine the books and records of any party required to file a tax return under this section and may issue a tax determination and assessment to the party as per Section 3-4-160 of this Code if a determination is made that any amount of tax, penalty or interest is due.

F. Every party required to file a tax return under subsection A or B of this section who files a complete tax return by its due date and makes timely payment of the amount computed thereon shall be eligible to retain a commission in the amount of one percent of the tax computed due thereon.

### **3-43-080 Books and records.**

Every person required to collect the tax imposed by this Chapter shall keep accurate books and records of its business or activity, including original source documents and books of entry denoting the transaction that gave rise, or may have given rise, to the tax liability or any exemption that may be claimed. All such books and records shall be kept in the English language and, at all times during business hours of the day, shall be subject to and available for inspection by the department.

### **3-43-090 Payment of tax required.**

The failure of the wholesale or retail bottled water dealer to collect the tax herein imposed shall not relieve the purchaser of his duty to pay it. If the wholesale and retail bottled water dealers fail to collect the tax, the purchaser shall be required to pay it directly to the department in the same manner and form as a retail bottled water dealer.

### **3-43-100 Commission for collection agents and dealers remitting tax when due.**

Except as otherwise provided in this chapter, any wholesale or retail bottled water dealer remitting a tax under this chapter shall, at the time of remitting such tax, remit to the department

## REVENUE ORDINANCE FOR 2008

the amount of tax imposed by this chapter less a commission of one percent of the tax remitted which is allowed to reimburse the bottled water dealer for the expenses incurred in collecting the tax, keeping records, preparing and filing returns, remitting the tax, and supplying data to the department upon request. The commission shall not be allowed, however, on any taxes not remitted when due. The director may also appoint one or more persons within or without the City as collection agents for the tax herein levied. The commission for said collection agents shall be the same as that provided wholesale or retail bottled water dealers.

### **3-43-110 Exemptions.**

A. This tax shall not apply to purchases of bottled water wherein the purchaser is a passenger on an interstate carrier; nor shall this tax apply to the extent it would violate the United States Constitution or the Constitution of the State of Illinois.

B. It shall be presumed that all sales of bottled water from wholesale or retail bottled water dealers are subject to tax under this chapter until the contrary is established. The burden of proving that such is not taxable hereunder shall be upon the person so claiming.

### **3-43-120 Registration.**

Every wholesale bottled water dealer in existence on January 1, 2008, shall register with the department before February 1, 2008. Every wholesale bottled water dealer commencing business after January 1, 2008 shall register with the department within 30 days after the date of commencing such business.

### **3-43-130 Supplementary provisions.**

Whenever not inconsistent with the provisions of this chapter, or whenever this chapter is silent, the provisions of the Uniform Revenue Procedures Ordinance, Chapter 3-4 of this Code, as amended, shall apply and supplement this chapter.

### **3-43-140 Deposit of funds.**

All proceeds resulting from the imposition of this tax, including interest and penalties, shall be deposited in the City's corporate fund.



**Chicago Department of Revenue  
New Bottled Water Tax and Floor Tax Announcement  
To Retail Bottled Water Dealers**

In the attached amendment to the municipal code, effective January 1, 2008, the Chicago City Council implemented a new Bottled Water Tax.

This tax will generally be collected by wholesale bottled water dealers from retail bottled water dealers, who in turn will collect it from their retail purchasers of bottled water. Under section 3-43-050 C, certain retailers may also elect to purchase tax free from wholesalers, collect tax from their purchasers and remit directly to the Department, if they have registered to collect tax and make direct remittance to the Department of Revenue.

As this new tax has not been collected from you by your wholesalers on the inventory of bottled water in your possession as of the effective date of this new tax, you will be required to complete the enclosed floor tax return and a Chicago site schedule summary.

On these forms you will attest to the inventory of bottled water in your possession on which you will need to remit the tax that you will subsequently collect from your purchasers of this product.

Normally this inventory would be performed on December 31, 2007 but an extension has been granted to January 4, 2008, due to the busy Holiday season.

The enclosed tax return, Chicago site summary and the amount computed due thereon should be remitted to the Chicago Department of Revenue, according to the instructions therein, by Friday, January 25, 2008. If you have questions on this new tax, on completing these forms, or otherwise need assistance, please contact our Customer Service unit at (312) 747-4747.

[illegible]

☐ \_\_\_\_\_ intends to remit Chicago bottled water tax to all wholesale bottled water dealers who provide bottled water for retail sale at its Chicago locations and will reimburse itself by collecting tax from customers at Chicago locations.

## Section 4- Payment and Remittance Instructions

**Mail To:** Chicago Department of Revenue, Tax Administration Unit, 333 S. State Street Suite 300,  
Chicago IL. 60604-3977

Under penalty of perjury, I certify that I have examined this tax return, and to the best of my knowledge and belief, it is true, correct, and complete.

[illegible][illegible]

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## Title 21--Food and Drugs

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(This index contains parts 100 to 169)

### CHAPTER I--FOOD AND DRUG ADMINISTRATION, DEPARTMENT OF HEALTH AND HUMAN SERVICES (CONTINUED)

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*Part*

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<u>101</u>	<u>Food labeling</u>
<u>102</u>	<u>Common or usual name for nonstandardized foods</u>
<u>104</u>	<u>Nutritional quality guidelines for foods</u>
<u>105</u>	<u>Foods for special dietary use</u>
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<u>108</u>	<u>Emergency permit control</u>
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<u>123</u>	<u>Fish and fishery products</u>
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<u>169</u>	<u>Food dressings and flavorings</u>

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(d) To meet the requirements of paragraph (b) of this section, processors who receive shucked molluscan shellfish shall accept only containers of shucked molluscan shellfish that bear a label that complies with § 1240.60(c) of this chapter. Processors shall maintain records that document that all shucked molluscan shellfish have met the requirements of this section. These records shall document:

- (1) The date of receipt;
- (2) The quantity and type of shellfish; and
- (3) The name and certification number of the packer or repacker of the product.

## PART 129—PROCESSING AND BOTTLING OF BOTTLED DRINKING WATER

### Subpart A—General Provisions

- Sec.  
129.1 Current good manufacturing practice.  
129.3 Definitions.

### Subpart B—Buildings and Facilities

- 129.20 Plant construction and design.  
129.35 Sanitary facilities.  
129.37 Sanitary operations.

### Subpart C—Equipment

- 129.40 Equipment and procedures.

### Subpart D [Reserved]

### Subpart E—Production and Process Controls

- 129.80 Processes and controls.

AUTHORITY: 21 U.S.C. 342, 348, 371, 374; 42 U.S.C. 264.

SOURCE: 42 FR 14355, Mar. 15, 1977, unless otherwise noted.

### Subpart A—General Provisions

#### § 129.1 Current good manufacturing practice.

The applicable criteria in part 110 of this chapter, as well as the criteria in §§ 129.20, 129.35, 129.37, 129.40, and 129.80 shall apply in determining whether the facilities, methods, practices, and controls used in the processing, bottling, holding, and shipping of bottled drinking water are in conformance with or

are operated or administered in conformity with good manufacturing practice to assure that bottled drinking water is safe and that it has been processed, bottled, held, and transported under sanitary conditions.

#### § 129.3 Definitions.

For the purposes of this part, the following definitions apply:

(a) *Approved source* when used in reference to a plant's product water or operations water means a source of water and the water therefrom, whether it be from a spring, artesian well, drilled well, municipal water supply, or any other source, that has been inspected and the water sampled, analyzed, and found to be of a safe and sanitary quality according to applicable laws and regulations of State and local government agencies having jurisdiction. The presence in the plant of current certificates or notifications of approval from the government agency or agencies having jurisdiction constitutes approval of the source and the water supply.

(b) *Bottled drinking water* means all water which is sealed in bottles, packages, or other containers and offered for sale for human consumption, including bottled mineral water.

(c) *Lot* means a collection of primary containers or unit packages of the same size, type, and style produced under conditions as nearly uniform as possible and designated by a common container code or marking.

(d) *Multiservice containers* means containers intended for use more than one time.

(e) *Nontoxic materials* means materials for product water contact surfaces utilized in the transporting, processing, storing, and packaging of bottled drinking water, which are free of substances which may render the water injurious to health or which may adversely affect the flavor, color, odor, or bacteriological quality of the water.

(f) *Operations water* means water which is delivered under pressure to a plant for container washing, hand washing, plant and equipment cleanup and for other sanitary purposes.

(g) *Primary container* means the immediate container in which the product water is packaged.

(h) *Product water* means processed water used by a plant for bottled drinking water.

(i) *Shall and should*. "Shall" refers to mandatory requirements and "should" refers to recommended or advisory procedures or equipment.

(j) *Shipping case* means a container in which one or more primary containers of the product are held.

(k) *Single-service container* means a container intended for one time usage only.

(l) *Unit package* means a standard commercial package of bottled drinking water, which may consist of one or more containers.

[42 FR 14355, Mar. 6, 1977, as amended at 44 FR 12175, Mar. 6, 1979]

## Subpart B—Buildings and Facilities

### § 129.20 Plant construction and design.

(a) The bottling room shall be separated from other plant operations or storage areas by tight walls, ceilings, and self-closing doors to protect against contamination. Conveyor openings shall not exceed the size required to permit passage of containers.

(b) If processing operations are conducted in other than a sealed system under pressure, adequate protection shall be provided to preclude contamination of the water and the system.

(c) Adequate ventilation shall be provided to minimize condensation in processing rooms, bottling rooms, and in container washing and sanitizing areas.

(d) The washing and sanitizing of containers for bottled drinking water shall be performed in an enclosed room. The washing and sanitizing operation shall be positioned within the room so as to minimize any possible post-sanitizing contamination of the containers before they enter the bottling room.

(e) Rooms in which product water is handled, processed, or held or in which containers, utensils, or equipment are washed or held shall not open directly into any room used for domestic household purposes.

### § 129.35 Sanitary facilities.

Each plant shall provide adequate sanitary facilities including, but not limited to, the following:

(a) *Product water and operations water*—(1) *Product water*. The product water supply for each plant shall be from an approved source properly located, protected, and operated and shall be easily accessible, adequate, and of a safe, sanitary quality which shall be in conformance at all times with the applicable laws and regulations of the government agency or agencies having jurisdiction.

(2) *Operations water*. If different from the product water supply, the operations water supply shall be obtained from an approved source properly located, protected, and operated and shall be easily accessible, adequate, and of a safe, sanitary quality which shall be in conformance at all times with the applicable laws and regulations of the government agency or agencies having jurisdiction.

(3) *Product water and operations water from approved sources*. (i) Samples of source water are to be taken and analyzed by the plant as often as necessary, but at a minimum frequency of once each year for chemical contaminants and once every 4 years for radiological contaminants. Additionally, source water obtained from other than a public water system is to be sampled and analyzed for microbiological contaminants at least once each week. This sampling is in addition to any performed by government agencies having jurisdiction. Records of approval of the source water by government agencies having jurisdiction and of sampling and analyses for which the plant is responsible are to be maintained on file at the plant.

(ii) Test and sample methods shall be those recognized and approved by the government agency or agencies having jurisdiction over the approval of the water source, and shall be consistent with the minimum requirements set forth in § 165.110(b) of this chapter.

(iii) Analysis of the sample may be performed for the plant by competent commercial laboratories (e.g., Environmental Protection Agency (EPA) and State-certified laboratories).

(h) *Product water* means processed water used by a plant for bottled drinking water.

(i) *Shall and should*. "Shall" refers to mandatory requirements and "should" refers to recommended or advisory procedures or equipment.

(j) *Shipping case* means a container in which one or more primary containers of the product are held.

(k) *Single-service container* means a container intended for one time usage only.

(l) *Unit package* means a standard commercial package of bottled drinking water, which may consist of one or more containers.

[42 FR 14355, Mar. 6, 1977, as amended at 44 FR 12175, Mar. 6, 1979]

## Subpart B—Buildings and Facilities

### § 129.20 Plant construction and design.

(a) The bottling room shall be separated from other plant operations or storage areas by tight walls, ceilings, and self-closing doors to protect against contamination. Conveyor openings shall not exceed the size required to permit passage of containers.

(b) If processing operations are conducted in other than a sealed system under pressure, adequate protection shall be provided to preclude contamination of the water and the system.

(c) Adequate ventilation shall be provided to minimize condensation in processing rooms, bottling rooms, and in container washing and sanitizing areas.

(d) The washing and sanitizing of containers for bottled drinking water shall be performed in an enclosed room. The washing and sanitizing operation shall be positioned within the room so as to minimize any possible post-sanitizing contamination of the containers before they enter the bottling room.

(e) Rooms in which product water is handled, processed, or held or in which containers, utensils, or equipment are washed or held shall not open directly into any room used for domestic household purposes.

### § 129.35 Sanitary facilities.

Each plant shall provide adequate sanitary facilities including, but not limited to, the following:

(a) *Product water and operations water*—(1) *Product water*. The product water supply for each plant shall be from an approved source properly located, protected, and operated and shall be easily accessible, adequate, and of a safe, sanitary quality which shall be in conformance at all times with the applicable laws and regulations of the government agency or agencies having jurisdiction.

(2) *Operations water*. If different from the product water supply, the operations water supply shall be obtained from an approved source properly located, protected, and operated and shall be easily accessible, adequate, and of a safe, sanitary quality which shall be in conformance at all times with the applicable laws and regulations of the government agency or agencies having jurisdiction.

(3) *Product water and operations water from approved sources*. (i) Samples of source water are to be taken and analyzed by the plant as often as necessary, but at a minimum frequency of once each year for chemical contaminants and once every 4 years for radiological contaminants. Additionally, source water obtained from other than a public water system is to be sampled and analyzed for microbiological contaminants at least once each week. This sampling is in addition to any performed by government agencies having jurisdiction. Records of approval of the source water by government agencies having jurisdiction and of sampling and analyses for which the plant is responsible are to be maintained on file at the plant.

(ii) Test and sample methods shall be those recognized and approved by the government agency or agencies having jurisdiction over the approval of the water source, and shall be consistent with the minimum requirements set forth in § 165.110(b) of this chapter.

(iii) Analysis of the sample may be performed for the plant by competent commercial laboratories (e.g., Environmental Protection Agency (EPA) and State-certified laboratories).

(4) *Source water testing exemptions.* (i) Firms that use a public water system for source water may substitute public water system testing results, or certificates showing full compliance with all provisions of EPA National Primary and Secondary Drinking Water Regulations pertaining to chemical contaminants (40 CFR parts 141 and 143), for the testing requirements of § 129.35(a)(3).

(ii) Firms that do not use a public water system as the source of their water may reduce the frequency of their testing of that source, as well as the number of chemical contaminants for which they test the source water, if they can document that such reduction is consistent with a State-issued waiver under EPA regulations (40 CFR parts 141 and 143).

(iii) Firms that do not use a public water system as the source of their water and whose source water has not been treated with a chlorine-based disinfectant or ozone do not have to test their source water for the residual disinfectants and DBP's listed in § 165.110(b)(4)(iii)(H) of this chapter. Firms that do not use a public water system as the source of their water but whose source water has been treated with a chlorine-based disinfectant or ozone must test their source water for the residual disinfectants and the DBP's listed in § 165.110(b)(4)(iii)(H) that are likely to result from such treatment.

(iv) The finished bottled water must comply with bottled water quality standards (21 CFR 165.110(b)) and section 402(a)(1) of the act dealing with adulterated foods.

(b) *Air under pressure.* Whenever air under pressure is directed at product water or a product water-contact surface, it shall be free of oil, dust, rust, excessive moisture, and extraneous materials; shall not affect the bacteriological quality of the water; and should not adversely affect the flavor, color, or odor of the water.

(c) *Locker and lunchrooms.* When employee locker and lunchrooms are provided, they shall be separate from plant operations and storage areas and shall be equipped with self-closing doors. The rooms shall be maintained in a clean and sanitary condition and refuse containers should be provided.

Packaging or wrapping material or other processing supplies shall not be stored in locker or lunchrooms.

[42 FR 14355, Mar. 15, 1977, as amended at 44 FR 12175, Mar. 6, 1979; 60 FR 57123, Nov. 13, 1995; 66 FR 16865, Mar. 28, 2001]

#### § 129.37 Sanitary operations.

(a) The product water-contact surfaces of all multiservice containers, utensils, pipes, and equipment used in the transportation, processing, handling, and storage of product water shall be clean and adequately sanitized. All product water-contact surfaces shall be inspected by plant personnel as often as necessary to maintain the sanitary condition of such surfaces and to assure they are kept free of scale, evidence of oxidation, and other residue. The presence of any unsanitary condition, scale, residue, or oxidation shall be immediately remedied by adequate cleaning and sanitizing of that product water-contact surface prior to use.

(b) After cleaning, all multiservice containers, utensils, and disassembled piping and equipment shall be transported and stored in such a manner as to assure drainage and shall be protected from contamination.

(c) Single-service containers and caps or seals shall be purchased and stored in sanitary closures and kept clean therein in a clean, dry place until used. Prior to use they shall be examined, and as necessary, washed, rinsed, and sanitized and shall be handled in a sanitary manner.

(d) Filling, capping, closing, sealing, and packaging of containers shall be done in a sanitary manner so as to preclude contamination of the bottled drinking water.

### Subpart C—Equipment

#### § 129.40 Equipment and procedures.

(a) *Suitability.* (1) All plant equipment and utensils shall be suitable for their intended use. This includes all collection and storage tanks, piping, fittings, connections, bottle washers, fillers, cappers, and other equipment which may be used to store, handle, process, package, or transport product water.

(2) All product water contact surfaces shall be constructed of nontoxic and nonabsorbant material which can be

adequately cleaned and sanitized and is in compliance with section 409 of the act.

(b) *Design.* Storage tanks shall be of the type that can be closed to exclude all foreign matter and shall be adequately vented.

#### Subpart D [Reserved]

#### Subpart E—Production and Process Controls

##### § 129.80 Processes and controls.

(a) *Treatment of product water.* All treatment of product water by distillation, ion-exchanging, filtration, ultraviolet treatment, reverse osmosis, carbonation, mineral addition, or any other process shall be done in a manner so as to be effective in accomplishing its intended purpose and in accordance with section 409 of the Federal Food, Drug, and Cosmetic Act. All such processes shall be performed in and by equipment and with substances which will not adulterate the bottled product. A record of the type and date of physical inspections of such equipment, conditions found, and the performance and effectiveness of such equipment shall be maintained by the plant. Product water samples shall be taken after processing and prior to bottling by the plant and analyzed as often as is necessary to assure uniformity and effectiveness of the processes performed by the plant. The methods of analysis shall be those approved by the government agency or agencies having jurisdiction.

(b) *Containers.* (1) Multiservice primary containers shall be adequately cleaned, sanitized, and inspected just prior to being filled, capped, and sealed. Containers found to be unsanitary or defective by the inspection shall be reprocessed or discarded. All multiservice primary containers shall be washed, rinsed, and sanitized by mechanical washers or by any other method giving adequate sanitary results. Mechanical washers shall be inspected as often as is necessary to assure adequate performance. Records of physical maintenance, inspections and conditions found, and performance of the mechanical washer shall be maintained by the plant.

(2) Multiservice shipping cases shall be maintained in such condition as to assure they will not contaminate the primary container or the product water. Adequate dry or wet cleaning procedures shall be performed as often as necessary to maintain the cases in satisfactory condition.

(c) *Cleaning and sanitizing solutions.* Cleaning and sanitizing solutions utilized by the plant shall be sampled and tested by the plant as often as is necessary to assure adequate performance in the cleaning and sanitizing operations. Records of these tests shall be maintained by the plant.

(d) *Sanitizing operations.* Sanitizing operations, including those performed by chemical means or by any other means such as circulation of live steam or hot water, shall be adequate to effect sanitization of the intended product water-contact surfaces and any other critical area. The plant should maintain a record of the intensity of the sanitizing agent and the time duration that the agent was in contact with the surface being sanitized. The following times and intensities shall be considered a minimum:

(1) Steam in enclosed system: At least 170 °F for at least 15 minutes or at least 200 °F for at least 5 minutes.

(2) Hot water in enclosed system: At least 170 °F for at least 15 minutes or at least 200 °F for at least 5 minutes.

(3) Chemical sanitizers shall be equivalent in bactericidal action to a 2-minute exposure of 50 parts per million of available chlorine at 57 °F when used as an immersion or circulating solution. Chemical sanitizers applied as a spray or fog shall have as a minimum 100 parts per million of available chlorine at 57 °F or its equivalent in bactericidal action.

(4) 0.1 part per million ozone water solution in an enclosed system for at least 5 minutes.

(5) When containers are sanitized using a substance other than one provided for in § 178.1010 of this chapter, such substance shall be removed from the surface of the container by a rinsing procedure. The final rinse, prior to filling the container with product water, shall be performed with a disinfected water rinse free of pathogenic bacteria or by an additional sanitizing

procedure equivalent in bactericidal action to that required in paragraph (d)(3) of this section.

(e) *Unit package production code.* Each unit package from a batch or segment of a continuous production run of bottled drinking water shall be identified by a production code. The production code shall identify a particular batch or segment of a continuous production run and the day produced. The plant shall record and maintain information as to the kind of product, volume produced, date produced, lot code used, and the distribution of the finished product to wholesale and retail outlets.

(f) *Filling, capping, or sealing.* During the process of filling, capping or sealing either single-service or multi-service containers, the performance of the filler, capper or sealer shall be monitored and the filled containers visually or electronically inspected to assure they are sound, properly capped or sealed, and coded and labeled. Containers which are not satisfactory shall be reprocessed or rejected. Only nontoxic containers and closures shall be used. All containers and closures shall be sampled and inspected to ascertain that they are free from contamination. At least once each 3 months, a bacteriological swab and/or rinse count should be made from at least four containers and closures selected just prior to filling and sealing. No more than one of the four samples may exceed more than one bacteria per milliliter of capacity or one colony per square centimeter of surface area. All samples shall be free of coliform organisms. The procedure and apparatus for these bacteriological tests shall be in conformance with those recognized by the government agency or agencies having jurisdiction. Tests shall be performed either by qualified plant personnel or a competent commercial laboratory.

(g) *Compliance procedures.* A quality standard for bottled drinking water is established in §165.110(b) of this chapter. To assure that the plant's production of bottled drinking water complies with the applicable standards, laws, and regulations of the government agency or agencies having jurisdiction, the plant will analyze product samples as follows:

(1) For bacteriological purposes, take and analyze at least once a week a representative sample from a batch or segment of a continuous production run for each type of bottled drinking water produced during a day's production. The representative sample shall consist of primary containers of product or unit packages of product.

(2) For chemical, physical, and radiological purposes, take and analyze at least annually a representative sample from a batch or segment of a continuous production run for each type of bottled drinking water produced during a day's production. The representative sample(s) consists of primary containers of product of unit packages of product.

(3) Analyze such samples by methods approved by the government agency or agencies having jurisdiction. The plant shall maintain records of date of sampling, type of product sampled, production code, and results of the analysis.

(h) *Record retention.* All records required by §§129.1, 129.20, 129.35, 129.37, 129.40, and 129.80 shall be maintained at the plant for not less than 2 years. Plants shall also retain, on file at the plant, current certificates or notifications of approval issued by the government agency or agencies approving the plant's source and supply of product water and operations water. All required documents shall be available for official review at reasonable times.

[42 FR 14355, Mar. 15, 1977, as amended at 44 FR 12175, Mar. 6, 1979; 60 FR 57124, Nov. 13, 1995]

## PART 130—FOOD STANDARDS: GENERAL

### Subpart A—General Provisions

#### Sec.

- 130.3 Definitions and interpretations.
- 130.5 Procedure for establishing a food standard.
- 130.6 Review of Codex Alimentarius food standards.
- 130.8 Conformity to definitions and standards of identity.
- 130.9 Sulfites in standardized food.
- 130.10 Requirements for foods named by use of a nutrient content claim and a standardized term.
- 130.11 Label designations of ingredients for standardized foods.



## Title 21--Food and Drugs

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### CHAPTER I--FOOD AND DRUG ADMINISTRATION, DEPARTMENT OF HEALTH AND HUMAN SERVICES (CONTINUED)

#### PART 165--BEVERAGES

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165.3

Definitions.



165.110

Bottled water.



section, but such seasoning and stabilizing ingredients do not in the aggregate exceed 10 percent of the weight of the finished food. To the ground peanuts, cut or chopped, shelled, and roasted peanuts may be added. During processing, the oil content of the peanut ingredient may be adjusted by the addition or subtraction of peanut oil. The fat content of the finished food shall not exceed 55 percent when determined as prescribed in "Official Methods of Analysis of the Association of Official Analytical Chemists," 13th Ed. (1980), section 27.006(a) under "Crude Fat—Official First Action, Direct Method," in paragraph (a), which is incorporated by reference. Copies may be obtained from the AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or may be examined at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) The peanut ingredients referred to in paragraph (a) of this section are:

(1) Blanched peanuts, in which the germ may or may not be included.

(2) Unblanched peanuts, including the skins and germ.

(c) The seasoning and stabilizing ingredients referred to in paragraph (a) of this section are suitable substances which are not food additives as defined in section 201(s) of the Federal Food, Drug, and Cosmetic Act (the act), or if they are food additives as so defined, they are used in conformity with regulations established pursuant to section 409 of the act. Seasoning and stabilizing ingredients that perform a useful function are regarded as suitable, except that artificial flavorings, artificial sweeteners, chemical preservatives, and color additives are not suitable ingredients in peanut butter. Oil products used as optional stabilizing ingredients shall be hydrogenated vegetable oils. For the purposes of this section, hydrogenated vegetable oil shall be considered to include partially hydrogenated vegetable oil.

(d) If peanut butter is prepared from unblanched peanuts as specified in

paragraph (b)(2) of this section, the name shall show that fact by some such statement as "prepared from unblanched peanuts (skins left on)." Such statement shall appear prominently and conspicuously and shall be in type of the same style and not less than half of the point size of that used for the words "peanut butter." This statement shall immediately precede or follow the words "peanut butter," without intervening written, printed, or graphic matter.

(e) *Label declaration.* Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter.

[42 FR 14475, Mar. 15, 1977, as amended at 47 FR 11834, Mar. 19, 1982; 49 FR 10103, Mar. 19, 1984; 54 FR 24896, June 12, 1989; 58 FR 2886, Jan. 6, 1993; 61 FR 9325, Mar. 8, 1996; 63 FR 14035, Mar. 24, 1998]

## PART 165—BEVERAGES

### Subpart A—General Provisions

Sec.

165.3 Definitions.

#### Subpart B—Requirements for Specific Standardized Beverages

165.110 Bottled water.

AUTHORITY: 21 U.S.C. 321, 341, 343, 343-1, 348, 349, 371, 379e.

SOURCE: 60 FR 57124, Nov. 13, 1995, unless otherwise noted.

### Subpart A—General Provisions

#### § 165.3 Definitions.

(a) A *lot* is:

(1) For purposes of determining quality factors related to manufacture, processing, or packing, a collection of primary containers or units of the same size, type, and style produced under conditions as nearly uniform as possible and usually designated by a common container code or marking, or in the absence of any common container code or marking, a day's production.

(2) For purposes of determining quality factors related to distribution and storage, a collection of primary containers or units transported, stored, or

held under conditions as nearly uniform as possible.

(b) A *sample* consists of 10 subsamples (consumer units), one taken from each of 10 different randomly chosen shipping cases to be representative of a given lot, unless otherwise specified in a specific standard in this part.

(c) An *analytical unit* is the portion(s) of food taken from a subsample of a sample for the purpose of analysis.

### Subpart B—Requirements for Specific Standardized Beverages

#### § 165.110 Bottled water.

(a) *Identity*—(1) *Description*. Bottled water is water that is intended for human consumption and that is sealed in bottles or other containers with no added ingredients except that it may optionally contain safe and suitable antimicrobial agents. Fluoride may be optionally added within the limitations established in § 165.110(b)(4)(ii). Bottled water may be used as an ingredient in beverages (e.g., diluted juices, flavored bottled waters). It does not include those food ingredients that are declared in ingredient labeling as “water,” “carbonated water,” “disinfected water,” “filtered water,” “seltzer water,” “soda water,” “sparkling water,” and “tonic water.” The processing and bottling of bottled water shall comply with applicable regulations in part 129 of this chapter.

(2) *Nomenclature*. The name of the food is “bottled water,” “drinking water,” or alternatively one or more of the following terms as appropriate:

(i) The name of water from a well tapping a confined aquifer in which the water level stands at some height above the top of the aquifer is “artesian water” or “artesian well water.” Artesian water may be collected with the assistance of external force to enhance the natural underground pressure. On request, plants shall demonstrate to appropriate regulatory officials that the water level stands at some height above the top of the aquifer.

(ii) The name of water from a subsurface saturated zone that is under a pressure equal to or greater than atmospheric pressure is “ground water.” Ground water must not be under the di-

rect influence of surface water as defined in 40 CFR 141.2.

(iii) The name of water containing not less than 250 parts per million (ppm) total dissolved solids (TDS), coming from a source tapped at one or more bore holes or springs, originating from a geologically and physically protected underground water source, may be “mineral water.” Mineral water shall be distinguished from other types of water by its constant level and relative proportions of minerals and trace elements at the point of emergence from the source, due account being taken of the cycles of natural fluctuations. No minerals may be added to this water.

(iv) The name of water that has been produced by distillation, deionization, reverse osmosis, or other suitable processes and that meets the definition of “purified water” in the United States Pharmacopeia, 23d Revision, January 1, 1995, which is incorporated by reference in accordance with 5 U.S.C. 551(a) and 1 CFR part 51. (Copies may be obtained from the United States Pharmacopoeial Convention, Inc., 12601 Twinbrook Pkwy., Rockville, MD 20852 and may be examined at the Center for Food Safety and Applied Nutrition’s Library, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html)), may be “purified water” or “demineralized water.” Alternatively, the water may be called “deionized water” if the water has been processed by deionization, “distilled water” if it is produced by distillation, “reverse osmosis water” if the water has been processed by reverse osmosis, and “\_\_\_\_\_ drinking water” with the blank being filled in with one of the defined terms describing the water in this paragraph (e.g., “purified drinking water” or “deionized drinking water”).

(v) The name of water that, after treatment and possible replacement of carbon dioxide, contains the same amount of carbon dioxide from the source that it had at emergence from

the source may be "sparkling bottled water."

(vi) The name of water derived from an underground formation from which water flows naturally to the surface of the earth may be "spring water." Spring water shall be collected only at the spring or through a bore hole tapping the underground formation feeding the spring. There shall be a natural force causing the water to flow to the surface through a natural orifice. The location of the spring shall be identified. Spring water collected with the use of an external force shall be from the same underground stratum as the spring, as shown by a measurable hydraulic connection using a hydrogeologically valid method between the bore hole and the natural spring, and shall have all the physical properties, before treatment, and be of the same composition and quality, as the water that flows naturally to the surface of the earth. If spring water is collected with the use of an external force, water must continue to flow naturally to the surface of the earth through the spring's natural orifice. Plants shall demonstrate, on request, to appropriate regulatory officials, using a hydrogeologically valid method, that an appropriate hydraulic connection exists between the natural orifice of the spring and the bore hole.

(vii) The name of water that meets the requirements under "Sterility Tests" <71> in the United States Pharmacopeia, 23d Revision, January 1, 1995, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR 51. (Copies may be obtained from the United States Pharmacopeial Convention, Inc., 12601 Twinbrook Pkwy., Rockville, MD 20852 and may be examined at the Center for Food Safety and Applied Nutrition's Library, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html)), may be "sterile water." Alternatively, the water may be called "sterilized water."

(viii) The name of water from a hole bored, drilled, or otherwise constructed in the ground which taps the water of an aquifer may be "well water."

(3) *Other label statements.* (i) If the TDS content of mineral water is below 500 ppm, or if it is greater than 1,500 ppm, the statement "low mineral content" or the statement "high mineral content", respectively, shall appear on the principal display panel following the statement of identity in type size at least one-half the size of the statement of identity but in no case of less than one-sixteenth of an inch. If the TDS of mineral water is between 500 and 1,500 ppm, no additional statement need appear.

(ii) When bottled water comes from a community water system, as defined in 40 CFR 141.2, except when it has been treated to meet the definitions in paragraphs (a)(2)(iv) and (a)(2)(vii) of this section and is labeled as such, the label shall state "from a community water system" or, alternatively, "from a municipal source" as appropriate, on the principal display panel or panels. This statement shall immediately and conspicuously precede or follow the name of the food without intervening written, printed, or graphic matter, other than statements required by paragraph (c) of this section, in type size at least one-half the size of the statement of identity but in no case of less than one-sixteenth of an inch.

(iii) When the label or labeling of a bottled water product states or implies (e.g., through label statements or vignettes with references to infants) that the bottled water is for use in feeding infants, and the product is not commercially sterile under § 113.3(e)(3)(i) of this chapter, the product's label shall bear conspicuously and on the principal display panel the statement "Not sterile. Use as directed by physician or by labeling directions for use of infant formula."

(4) *Label declaration.* Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter.

(b) *Quality.* The standard of quality for bottled water, including water for use as an ingredient in beverages (except those described in the labeling as

"water," "carbonated water," "disinfected water," "filtered water," "seltzer water," "soda water," "sparkling water," and "tonic water"), is as follows:

(1) *Definitions.* (i) *Trihalomethane* (THM) means one of the family of organic compounds, named as derivatives of methane, wherein three of the four hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.

(ii) *Total trihalomethanes (TTHM)* means the sum of the concentration in milligrams per liter of the trihalomethane compounds (trichloromethane, dibromochloromethane, bromodichloromethane, and tribromomethane), rounded to two significant figures.

(iii) *Haloacetic acids* (five) (HAA5) means the sum of the concentrations in milligrams per liter of the haloacetic acid compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to two significant figures after addition.

(2) *Microbiological quality.* Bottled water shall, when a sample consisting of analytical units of equal volume is examined by the methods described in applicable sections of "Standard Methods for the Examination of Water and Wastewater," 15th Ed. (1980), American Public Health Association, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 (copies may be obtained from the American Public Health Association, 800 I St. NW., Washington, DC 20001, or a copy may be examined at the National Archives and Records Administration (NARA), or at the Center for Food Safety and Applied Nutrition's Library, 200 C St., SW., Washington, DC, for information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html)), meet the following standards of microbiological quality:

(i) *Multiple-tube fermentation method.* Not more than one of the analytical units in the sample shall have a most probable number (MPN) of 2.2 or more coliform organisms per 100 milliliters

and no analytical unit shall have an MPN of 9.2 or more coliform organisms per 100 milliliters; or

(ii) *Membrane filter method.* Not more than one of the analytical units in the sample shall have 4.0 or more coliform organisms per 100 milliliters and the arithmetic mean of the coliform density of the sample shall not exceed one coliform organism per 100 milliliters.

(3) *Physical quality.* Bottled water shall, when a composite of analytical units of equal volume from a sample is examined by the method described in applicable sections of "Standard Methods for the Examination of Water and Wastewater," 15th Ed. (1980), which is incorporated by reference (the availability of this incorporation by reference is given in paragraph (b)(2) of this section), meet the following standards of physical quality:

(i) The turbidity shall not exceed 5 units.

(ii) The color shall not exceed 15 units.<sup>1</sup>

(iii) The odor shall not exceed threshold odor No. 3.<sup>1</sup>

(4) *Chemical quality.* (i)(A) Bottled water shall, when a composite of analytical units of equal volume from a sample is examined by the methods described in paragraph (b)(4)(i)(B) of this section, meet standards of chemical quality and shall not contain chemical substances in excess of the following concentrations:

Substance	Concentration in milligrams per liter
Chloride <sup>1</sup> .....	250.0
Iron <sup>1</sup> .....	0.3
Manganese <sup>1</sup> .....	0.05
Phenols .....	0.001
Total dissolved solids <sup>1</sup> .....	500.0
Zinc <sup>1</sup> .....	5.0

<sup>1</sup> Mineral water is exempt from allowable level. The exemptions are aesthetically based allowable levels and do not relate to a health concern.

(B) Analyses conducted to determine compliance with paragraph (b)(4)(i)(A) of this section shall be made in accordance with the methods described in the applicable sections of "Standard Methods for the Examination of Water and Wastewater," 15th Ed. (1980), or

<sup>1</sup> Mineral water is exempt from allowable level. The exemptions are aesthetically based allowable levels and do not relate to a health concern.

"Methods for Chemical Analysis of Water and Wastes," Environmental Monitoring and Support Laboratory (EMSL), EPA-600/4-79-020, March 1983, U.S. Environmental Protection Agency (EPA), both of which are incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(C) Analyses for organic substances shall be determined by the appropriate methods set forth below. The methods in paragraphs (b)(4)(i) (C)(1) and (C)(2) of this section are incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 and are described in "Standard Methods for Examination of Water and Wastewater," 15th Ed. (1980). Copies may be obtained from the American Public Health Association, 800 I St. NW., Washington DC 20001, and examined at the National Archives and Records Administration (NARA), or the Center for Food Safety and Applied Nutrition's Library, 200 C St. NW., Washington DC. For information on the availability of this material at NARA, call 202-741-6030, or go to:

[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The methods in paragraphs (b)(4)(i)(C)(3) and (C)(4) are cross-referenced in 40 CFR part 141, subpart C, appendix C.

(1) "Methods for Organochlorine Pesticides in Industrial Effluents;"

(2) "Methods for Chlorinated Phenoxy Acid Herbicides in Industrial Effluents," November 28, 1973;

(3) "Part I: The Analysis of Trihalomethanes in Finished Waters by the Purge and Trap Method;" which is cross-referenced in 40 CFR part 141, subpart C, appendix C;

(4) "Part II: The Analysis of Trihalomethanes in Drinking Water by Liquid/Liquid Extraction," which is cross-referenced in 40 CFR part 141, subpart C, appendix C;

(11)(A) Bottled water packaged in the United States to which no fluoride is added shall not contain fluoride in excess of the levels in Table 1 and these levels shall be based on the annual average of maximum daily air tempera-

tures at the location where the bottled water is sold at retail.

TABLE 1

Annual average of maximum daily air temperatures (°F)	Fluoride concentration in milligrams per liter
53.7 and below .....	2.4
53.8-58.3 .....	2.2
58.4-63.8 .....	2.0
63.9-70.6 .....	1.8
70.7-79.2 .....	1.6
79.3-90.5 .....	1.4

(B) Imported bottled water to which no fluoride is added shall not contain fluoride in excess of 1.4 milligrams per liter.

(C) Bottled water packaged in the United States to which fluoride is added shall not contain fluoride in excess of levels in Table 2 and these levels shall be based on the annual average of maximum daily air temperatures at the location where the bottled water is sold at retail.

TABLE 2

Annual average of maximum daily air temperatures (°F)	Fluoride concentration in milligrams per liter
53.7 and below .....	1.7
53.8-58.3 .....	1.5
58.4-63.8 .....	1.3
63.9-70.6 .....	1.2
70.7-79.2 .....	1.0
79.3-90.5 .....	0.8

(D) Imported bottled water to which fluoride is added shall not contain fluoride in excess of 0.8 milligram per liter.

(11) Having consulted with EPA as required by section 410 of the Federal Food, Drug, and Cosmetic Act, the Food and Drug Administration has determined that bottled water, when a composite of analytical units of equal volume from a sample is examined by the methods listed in paragraphs (b)(4)(iii)(E) through (b)(4)(iii)(F), and (b)(4)(iii)(G) of this section, shall not contain the following chemical contaminants in excess of the concentrations specified in paragraphs (b)(4)(iii)(A) through (b)(4)(iii)(D) of this section.

(A) The allowable levels for inorganic substances are as follows:

Contaminant	Concentration in milligrams per liter (or as specified)
Arsenic .....	0.010
Antimony .....	.005
Barium .....	2
Beryllium .....	0.004
Cadmium .....	0.005
Chromium .....	0.1
Copper .....	1.0
Cyanide .....	0.2
Lead .....	0.005
Mercury .....	0.002
Nickel .....	0.1
Nitrate .....	10 (as nitrogen)
Nitrite .....	1 (as nitrogen)
Total Nitrate and Nitrite .....	10 (as nitrogen)
Selenium .....	0.05
Thallium .....	0.002

(B) The allowable levels for volatile organic chemicals (VOC's) are as follows:

Contaminant (CAS Reg. No.)	Concentration in milligrams per liter
Benzene (71-43-2) .....	0.005
Carbon tetrachloride (58-23-5) .....	0.005
o-Dichlorobenzene (95-50-1) .....	0.6
p-Dichlorobenzene (106-46-7) .....	0.075
1,2-Dichloroethane (107-06-2) .....	0.005
1,1-Dichloroethylene (75-35-4) .....	0.007
cis-1,2-Dichloroethylene (156-59-2) .....	0.07
trans-1,2-Dichloroethylene (156-60-5) .....	0.1
Dichloromethane (75-09-2) .....	0.005
1,2-Dichloropropane (78-87-5) .....	0.005
Ethylbenzene (100-41-4) .....	0.7
Monochlorobenzene (108-90-7) .....	0.1
Styrene (100-42-5) .....	0.1
Tetrachloroethylene (127-18-4) .....	0.005
Toluene (108-88-3) .....	1
1,2,4-Trichlorobenzene (120-82-1) .....	0.07
1,1,1-Trichloroethane (71-55-6) .....	0.20
1,1,2-Trichloroethane (79-00-5) .....	0.005
Trichloroethylene (79-01-6) .....	0.005
Vinyl chloride (75-01-4) .....	0.002
Xylenes (1330-20-7) .....	10

(C) The allowable levels for pesticides and other synthetic organic chemicals (SOC's) are as follows:

Contaminant (CAS Reg. No.)	Concentration in milligrams per liter
Alachlor (15972-60-8) .....	0.002
Atrazine (1912-24-9) .....	0.003
Benzo(a)pyrene (50-32-8) .....	0.0002
Carbofuran (1563-66-2) .....	0.04
Chlordane (57-74-9) .....	0.002
Dalapon (75-99-0) .....	0.2
1,2-Dibromo-3-chloropropane (96-12-8) .....	0.0002
2,4-D (94-75-7) .....	0.07
Di(2-ethylhexyl)adipate (103-23-1) .....	0.4
Dinoseb (88-85-7) .....	0.007
Diquat (85-00-7) .....	0.02
Endothall (145-73-3) .....	0.1
Endrin (72-20-8) .....	0.002
Ethylene dibromide (106-93-4) .....	0.00005
Glyphosate (1071-53-6) .....	0.7
Heptachlor (76-44-8) .....	0.0004
Heptachlor epoxide (1024-57-3) .....	0.0002
Hexachlorobenzene (118-74-4) .....	0.001

Contaminant (CAS Reg. No.)	Concentration in milligrams per liter
Hexachlorocyclopentadiene (77-47-4) ...	0.05
Lindane (58-89-9) .....	0.0002
Methoxychlor (72-43-5) .....	0.04
Oxamyl (23135-22-0) .....	0.2
Pentachlorophenol (87-86-5) .....	0.001
PCB's (as decachlorobiphenyl) (1336-36-3) .....	0.0005
Picloram (1918-02-1) .....	0.5
Simazine (122-34-9) .....	0.004
2,3,7,8-TCDD (Dioxin) (1746-01-6) .....	3x10 <sup>-4</sup>
Toxaphene (8001-35-2) .....	0.003
2,4,5-TP (Silvex) (93-72-1) .....	0.05

(D) The allowable levels for certain chemicals for which EPA has established secondary maximum contaminant levels in its drinking water regulations (40 CFR part 143) are as follows:

Contaminant	Concentration in milligrams per liter
Aluminum .....	0.2
Silver .....	0.1
Sulfate <sup>1</sup> .....	250.0

<sup>1</sup> Mineral water is exempt from allowable level. The exemptions are aesthetically based allowable levels and do not relate to a health concern.

(E) Analyses to determine compliance with the requirements of paragraph (b)(4)(iii)(A) of this section shall be conducted in accordance with an applicable method and applicable revisions to the methods listed in paragraphs (b)(4)(iii)(E)(I) through (b)(4)(iii)(E)(I4) of this section and described, unless otherwise noted, in "Methods for Chemical Analysis of Water and Wastes," U.S. EPA Environmental Monitoring and Support Laboratory (EMSL), Cincinnati, OH 45258 (EPA-600/4-79-020), March 1983, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR

part 51. Copies of this publication are available from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5825 Port Royal Rd., Springfield, VA 22161, or may be examined at the Center for Food Safety and Applied Nutrition's Library, Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(I) Antimony shall be measured using the following methods:

(i) Method 204.2—"Atomic Absorption; furnace technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(ii) Method 200.8—"Determination of Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry," Rev. 4.4, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this publication are available from the National Technical Information Service, U.S. Department of Commerce, 5825 Port Royal Rd., Springfield, VA 22161, or may be examined at the Center for Food Safety and Applied Nutrition's Library, Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(iii) Method 200.9—"Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption Spectrometry," Rev. 1.2, April

1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(iv) Method D-3697-92—"Standard Test Method for Antimony in Water," contained in the Annual Book of ASTM Standards, vols. 11.01 and 11.02, 1995, American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this publication are available from American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428, or may be examined at the Center for Food Safety and Applied Nutrition's Library, Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(2) Barium shall be measured using the following methods:

(i) Method 203.2—"Atomic Absorption; furnace technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(ii) Method 203.1—"Atomic Absorption; direct aspiration," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(iii) Method 200.7—"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry," Rev. 3.3, April 1991, U.S. EPA, EMSL. The revision is contained in the



manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(3) Beryllium shall be measured using the following methods:

(i) Method 210.2—"Atomic Absorption; Furnace Technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(ii) Method 200.7—"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry," Rev. 3.3, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(iii) Method 200.8—"Determination of Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry," Rev. 4.4, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(iv) Method 200.9—"Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption Spectrometry," Rev. 1.2, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled

"Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(4) Cadmium shall be measured using the following methods:

(i) Method 213.2—"Atomic Absorption; Furnace Technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(ii) Method 200.7—"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry," Rev. 3.3, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(5) Chromium shall be measured using the following methods:

(i) Method 218.2—"Atomic Absorption; furnace technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(ii) Method 200.7—"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry," Rev. 3.3, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1

CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(I)(ii) of this section.

(6) Copper shall be measured as total recoverable metal without filtration using the following methods:

(i) Method 220.2—"Atomic Absorption; furnace technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(ii) Method 220.1—"Atomic Absorption; direct aspiration," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of these incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(iii) Method 200.7—"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry," Rev. 3.3, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(I)(ii) of this section.

(iv) Method 200.8—"Determination of Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry," Rev. 4.4, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(I)(ii) of this section.

(v) Method 200.9—"Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption Spectrometry," Rev. 1.2, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of

Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(I)(ii) of this section.

(7) Cyanide shall be measured using the following methods:

(i) Method 335.1—"Titrimetric; Spectrophotometric" which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(ii) Method 335.2—"Titrimetric; Spectrophotometric" which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(iii) Method 335.3—"Colorimetric, Automated UV," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of these incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(iv) Method D-2036-91—"Standard Test Methods for Cyanides in Water," contained in the Annual Book of ASTM Standards, vols. 11.01 and 11.02, 1995, American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this publication are available from American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428, or may be examined at the Center for Food Safety and Applied Nutrition's Library, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(8) Lead shall be measured as total recoverable metal without filtration using the following methods:

(i) Method 239.2—"Atomic Absorption; furnace technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(ii) Method 200.8—"Determination of Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry," Rev. 4.4, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(iii) Method 200.9—"Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption Spectrometry," Rev. 1.2, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(9) Mercury shall be measured using the following methods:

(i) Method 245.1—"Manual cold vapor technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(ii) Method 245.2—"Automated cold vapor technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of these incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(10) Nickel shall be measured using the following methods:

(i) Method 249.1—"Atomic Absorption; direct aspiration," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(ii) Method 249.2—"Atomic Absorption; furnace technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

The availability of these incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(iii) Method 200.7—"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry," Rev. 3.3, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(iv) Method 200.8—"Determination of Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry," Rev. 4.4, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(v) Method 200.9—"Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption Spectrometry," Rev. 1.2, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(11) Nitrate and/or nitrite shall be measured using the following methods:

(i) Method 300.0—"The Determination of Inorganic Anions in Water by Ion Chromatography—Method 300.0," EPA, EMSL (EPA-600/4-84-017), March 1984, which is incorporated by reference in

accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this publication are available from NTIS, U.S. Department of Commerce, 5825 Port Royal Rd., Springfield, VA 22161, or may be examined at the Center for Food Safety and Applied Nutrition's Library, Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html)

[code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(ii) Method 353.1—"Colorimetric, automated, hydrazine reduction," for nitrate only, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(iii) Method 353.2—"Colorimetric, automated, cadmium reduction," for both nitrate and nitrite, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(iv) Method 353.3—"Spectrophotometric, cadmium reduction," for both nitrate and nitrite, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(12) Selenium shall be measured using the following methods:

(i) Method 270.2—"Atomic Absorption; furnace technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(ii) Method 270.3—"Atomic Absorption; gaseous hydride," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(13) Thallium shall be measured using the following methods:

(i) Method 279.2—"Atomic Absorption; furnace technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(ii) Method 200.8—"Determination of Trace Elements in Water and Wastes

by Inductively Coupled Plasma-Mass Spectrometry," Rev. 4.4, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(iii) Method 200.9—"Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption Spectrometry," Rev. 1.2, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(14) Arsenic shall be measured using the following methods:

(i) Method 200.8—"Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry," Revision 5.4, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Method 200.8 is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples—Supplement 1," EPA/600/R-94/111, May 1994. Copies of this publication are available from the National Technical Information Service (NTIS), PB95-125472, U.S. Department of Commerce, 5825 Port Royal Rd., Springfield, VA 22161, or may be examined at the Center for Food Safety and Applied Nutrition's Library, Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/](http://www.archives.gov/federal_register/)

*code\_of\_federal\_regulations/  
ibr\_locations.html.*

(ii) Method 200.9—"Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption," Revision 2.2, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Method 200.9 is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples—Supplement 1," EPA/600/R-94/111, May 1994. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(14)(i) of this section.

(F) Analyses to determine compliance with the requirements of paragraphs (b)(4)(iii)(B) and (b)(4)(iii)(C) of this section shall be conducted in accordance with an applicable method or applicable revisions to the methods listed in paragraphs (b)(4)(iii)(F)(1) through (b)(4)(iii)(F)(20) of this section and described, unless otherwise noted, in "Methods for the Determination of Organic Compounds in Drinking Water," Office of Research and Development, EMSL, EPA/600/4-88/039, December 1988, or in "Methods for the Determination of Organic Compounds in Drinking Water, Supplement 1," Office of Research and Development, EMSL, EPA/600/4-90/020, July 1990, which are incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of these publications are available from NTIS, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, VA 22161, or may be examined at the Center for Food Safety and Applied Nutrition's Library, Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(1) Method 502.1—"Volatile Halogenated Organic Compounds in Water by Purge and Trap Gas Chromatography," Rev. 2.0, 1989, (applicable to VOC's), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(2) Method 502.2—"Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series," Rev. 2.0, 1989, (applicable to VOC's), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(3) Method 503.1—"Volatile Aromatic and Unsaturated Organic Compounds in Water by Purge and Trap Gas Chromatography," Rev. 2.0, 1989, (applicable to VOC's), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(4) Method 524.1—"Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography/Mass Spectrometry," Rev. 3.0, 1989, (applicable to VOC's), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(5) Method 524.2—"Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry," Rev. 3.0, 1989, (applicable to VOC's), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(6) Method 504—"1,2-Dibromoethane (EDB) and 1,2-Dibromo-3-Chloropropane (DBCP) in Water by Microextraction and Gas Chromatography," Rev. 2.0, 1989, (applicable to dibromochloropropane (DBCP) and ethylene dibromide (EDB)), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(7) Method 505—"Analysis of Organohalide Pesticides and Commercial Polychlorinated Biphenyl (PCB) Products in Water by Microextraction and Gas Chromatography," Rev. 2.0, 1989, (applicable to alachlor, atrazine, chlordane, heptachlor, heptachlor epoxide, lindane, methoxychlor, toxaphene, endrin, hexachlorobenzene, hexachlorocyclopentadiene, simazine, and as a screen for PCB's), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(8) Method 506—"Determination of Phthalate and Adipate Esters in Drinking Water by Liquid-Liquid Extraction

or Liquid-Solid Extraction and Gas Chromatography with Photoionization Detection," applicable to di(2-ethylhexyl) adipate which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(9) Method 507—"Determination of Nitrogen- and Phosphorus-Containing Pesticides in Water by Gas Chromatography with a Nitrogen-Phosphorus Detector," Rev. 2.0, 1989, (applicable to alachlor, atrazine, and simazine), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(10) Method 508—"Determination of Chlorinated Pesticides in Water by Gas Chromatography with an Electron Capture Detector," Rev. 3.0, 1989, (applicable to chlordane, heptachlor, heptachlor epoxide, lindane, methoxychlor, toxaphene, endrin, hexachlorobenzene, and as a screen for PCB's), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(11) Method 508A—"Screening for Polychlorinated Biphenyls by Perchlorination and Gas Chromatography," Rev. 1.0, 1989, (used to quantitate PCB's as decachlorobiphenyl if detected in methods 505 or 508 in paragraph (b)(4)(iii)(F)(7) or (b)(4)(iii)(F)(9) of this section, respectively, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(12) Method 515.1—"Determination of Chlorinated Acids in Water by Gas Chromatography with an Electron Capture Detector," Rev. 5.0, 1991, (applicable to 2,4-D, 2,4,5-TP (Silvex), pentachlorophenol, dalapon, dinoseb, and picloram), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(13) Method 525.1—"Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography/Mass Spectrometry," Rev. 2.2, May 1991, (applicable to alachlor, atrazine, chlordane, heptachlor, heptachlor epoxide, lindane, methoxychlor, pentachlorophenol, benzo(a)pyrene, di(2-ethylhexyl) adipate, endrin, hexachlorobenzene, hexachlorocyclopentadiene, and simazine), which is in-

corporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(14) Method 531.1—"Measurement of N-Methylcarbamoyloximes and N-Methylcarbamates in Water by Direct Aqueous Injection HPLC with Post Column Derivatization," Rev. 3.0, 1989, (applicable to carbofuran and oxamyl (vydate)), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(15) Method 547—"Determination of Glyphosate in Drinking Water by Direct-Aqueous-Injection HPLC, Post-Column Derivatization, and Fluorescence Detection," (applicable to glyphosate), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(16) Method 548—"Determination of Endothall in Drinking Water by Aqueous Derivatization, Liquid-Solid Extraction, and Gas Chromatography with Electron-Capture Detection," (applicable to endothall), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(17) Method 549—"Determination of Diquat and Paraquat in Drinking Water by Liquid-Solid Extraction and HPLC with Ultraviolet Detection," (applicable to diquat), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(18) Method 550—"Determination of Polycyclic Aromatic Hydrocarbons in Drinking Water by Liquid-Liquid Extraction and HPLC with Coupled Ultraviolet and Fluorescence Detection," (applicable to benzo(a)pyrene and other polynuclear aromatic hydrocarbons), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(19) Method 550.1—"Determination of Polycyclic Aromatic Hydrocarbons in Drinking Water by Liquid-Solid Extraction and HPLC with Coupled Ultraviolet and Fluorescence Detection," (applicable to benzo(a)pyrene and other polynuclear aromatic hydrocarbons), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of these incorporation by reference is given in paragraph (b)(4)(iii)(F) of this section.

(20) Method 1613—"Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS," Rev. A, 1990, EPA, Office of Water Regulations and Standards, Industrial Technology Division, (applicable to 2,3,7,8-TCDD (Dioxin)), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this publication are available from USEPA-OST, Sample Control Center, P.O. Box 1407, Alexandria, VA 22313, or may be examined at the Center for Food Safety and Applied Nutrition's Library, Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(G) Analyses to determine compliance with the requirements of paragraph (b)(4)(iii)(D) of this section shall be conducted in accordance with an applicable method and applicable revisions to the methods listed in paragraphs (b)(4)(iii)(G)(1) through (b)(4)(iii)(G)(3) of this section and described, unless otherwise noted, in "Methods of Chemical Analysis of Water and Wastes," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(1) Aluminum shall be measured using the following methods:

(i) Method 202.1—"Atomic Absorption; direct aspiration technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(ii) Method 202.2—"Atomic Absorption; furnace technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E).

(iii) Method 200.7—"Determination of Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry," Rev. 3.3, April 1991, U.S. EPA, EMSL. The revision

is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(iv) Method 200.8—"Determination of Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry," Rev. 4.4, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(v) Method 200.9—"Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption Spectrometry," Rev. 1.2, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(2) Silver shall be measured using the following methods:

(i) Method 272.1—"Atomic Absorption; direct aspiration technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(ii) Method 272.2—"Atomic Absorption; furnace technique," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(iii) Method 200.7—"Determination of Trace Elements in Water and Wastes

by Inductively Coupled Plasma-Atomic Emission Spectrometry," Rev. 3.3, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(iv) Method 200.8—"Determination of Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry," Rev. 4.4, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(v) Method 200.9—"Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption Spectrometry," Rev. 1.2, April 1991, U.S. EPA, EMSL. The revision is contained in the manual entitled "Methods for the Determination of Metals in Environmental Samples," Office of Research and Development, Washington, DC 20460, (EPA/600/4-91/010), June 1991, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of these incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(ii) of this section.

(3) Sulfate shall be measured using the following methods:

(i) Method 300.0—"The Determination of Inorganic Anions in Water by Ion Chromatography—Method 300.0," EPA, EMSL (EPA-600/4-84-017), March 1984, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(E)(i)(i) of this section.

(ii) Method 375.1—"Colorimetric, Automated, Chloranilate," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(iii) Method 375.3—"Gravimetric," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51, or

(iv) Method 375.4—"Turbidimetric," which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of these incorporation by reference is given in paragraph (b)(4)(iii)(E) of this section.

(H) The allowable levels for residual disinfectants and disinfection byproducts are as follows:

Substance	Concentration in milligrams per liter
Disinfection byproducts	
Bromate .....	0.010
Chlorite .....	1.0
Haloacetic acids (five) (HAAS) .....	0.060
Total Trihalomethanes (TTHM) .....	0.080
Residual disinfectants	
Chloramine .....	4.0 (as Cl <sub>2</sub> )
Chlorine .....	4.0 (as Cl <sub>2</sub> )
Chlorine dioxide .....	0.8 (as ClO <sub>2</sub> )

(I) Analysis to determine compliance with the requirements of paragraph (b)(4)(iii)(H) of this section shall be conducted in accordance with an applicable method listed in paragraphs (b)(4)(iii)(I)(1) through (b)(4)(iii)(I)(7) of this section and described in "Method 300.1, Determination of Inorganic Anions in Drinking Water by Ion Chromatography," Rev. 1.0, U.S. EPA, 1997, EPA/600/R-98/118; "Methods for the Determination of Inorganic Substances in Environmental Samples," U.S. EPA, August 1993, EPA/600/R-93/100; "Methods for the Determination of Organic Compounds in Drinking Water-Supplement II," U.S. EPA, August 1992, EPA/600/R-92/129; "Methods for the Determination of Organic Compounds in Drinking Water-Supplement III," U.S. EPA, August 1995, EPA/600/R-95/131; "Standard Methods for the Examination of Water and Wastewater," 19th Ed., American Public Health Association, 1995; and "Annual Book of ASTM Standards," vol. 11.01, American Society for Testing and Materials, 1996, which are incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the following



publications are available from the National Technical Information Service (NTIS): EPA/600/R-95/131 (NTIS number PB95-261616), EPA/600/R-92/129 (NTIS number PB92-207703), EPA/600/R-93/100 (NTIS number PB94-121811), and EPA/600/R-98/118 (NTIS number PB98-169196). NTIS can be contacted at NTIS, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, VA 22161, 1-800-353-6847 or 703-605-6000, [www.ntis.gov](http://www.ntis.gov). Copies of the publication EPA/600/R-98/118 are also available from the Chemical Exposure Research Branch, Microbiological and Chemical Exposure Assessment Research Division, National Exposure Research Laboratory, U.S. EPA, Cincinnati, OH 45268, 513-569-7757, (FAX) 513-569-7757. Copies of "Standard Methods for the Examination of Water and Wastewater," 19th Ed., are available from the American Public Health Association, 1015 15th Street, NW., Washington, DC 20005. All of the publications cited in paragraph (b)(4)(iii)(I) of this section may be examined at the National Archives and Records Administration (NARA), or at the Center for Food Safety and Applied Nutrition's Library, 5100 Paint Branch Pkwy., College Park, MD 20740. For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). Copies of "Annual Book of ASTM Standards," 1996, vol. 11.01, are available from the American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428, or may be examined at the Office of the Federal Register. Copies of the methods incorporated by reference in paragraph (b)(4)(iii)(I) of this section may also be examined at the Center for Food Safety and Applied Nutrition's Library, 5100 Paint Branch Pkwy., College Park, MD 20740.

(I) Bromate shall be measured using the following method: Method 300.1—"Determination of Inorganic Anions in Drinking Water by Ion Chromatography," Rev. 1.0, U.S. EPA, 1997, EPA/600/R-98/118, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(2) Chlorite shall be measured using the following methods:

(i) Method 300.0—"Determination of Inorganic Anions by Ion Chromatography," Rev. 2.1. The revision is contained in the manual entitled "Methods for the Determination of Inorganic Substances in Environmental Samples," U.S. EPA, August 1993, EPA/600/R-93/100, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(ii) Method 300.1—"Determination of Inorganic Anions in Drinking Water by Ion Chromatography," Rev. 1.0, U.S. EPA, 1997, EPA/600/R-98/118, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(3) HAA5 shall be measured using the following methods:

(i) Method 552.1—"Determination of Haloacetic Acids and Dalapon in Drinking Water by Ion Exchange Liquid-Solid Extraction and Gas Chromatography with Electron Capture Detection," Rev. 1.0. The revision is contained in the manual entitled "Methods for the Determination of Organic Compounds in Drinking Water-Supplement II," U.S. EPA, August 1992, EPA/600/R-92/129, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(ii) Method 552.2—"Determination of Haloacetic Acids and Dalapon in Drinking Water by Liquid-Liquid Extraction, Derivatization and Gas Chromatography with Electron Capture Detection," Rev. 1.0. The revision is contained in the manual entitled "Methods for the Determination of Organic Compounds in Drinking Water-Supplement III," U.S. EPA, August 1993, EPA/600/R-95/131, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(iii) Method 6251 B—"Disinfection By-Products: Haloacetic Acids and Trichlorophenol," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(4) TTHM shall be measured using the following methods:

(i) Method 502.2—"Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series," Rev. 2.1. The revision is contained in the manual entitled "Methods for the Determination of Organic Compounds in Drinking Water-Supplement III," U.S. EPA, August 1993, EPA/600/R-95/131, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(ii) Method 524.2—"Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry," Rev. 1.0. The revision is contained in the manual entitled "Methods for the Determination of Organic Compounds in Drinking Water-Supplement III," U.S. EPA, August 1993, EPA/600/R-95/131, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(iii) Method 551.1—"Determination of Chlorination Disinfection Byproducts, Chlorinated Solvents, and Halogenated Pesticides/Herbicides in Drinking Water by Liquid-Liquid Extraction and Gas Chromatography with Electron-Capture Detection," Rev. 1.0. The revision is contained in the manual entitled "Methods for the Determination of Organic Compounds in Drinking Water-Supplement III," U.S. EPA, August 1993, EPA/600/R-95/131, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation

by reference is given in paragraph (b)(4)(iii)(I) of this section.

(5) Compliance with the chloramine standard can be determined by measuring combined or total chlorine. The following methods shall be used to measure chloramine:

(i) ASTM Method D1253-86—"Standard Test Method for Residual Chlorine in Water," which is contained in the book entitled "Annual Book of ASTM Standards," 1996, vol. 11.01, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(ii) Method 4500-Cl D—"Amperometric Titration Method," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(iii) Method 4500-Cl F—"DPD Ferrous Titrimetric Method," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(iv) Method 4500-Cl G—"DPD Colorimetric Method," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(v) Method 4500-Cl E—"Low-Level Amperometric Titration Method," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(vi) Method 4500-Cl I—"Iodometric Electrode Technique," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(6) Compliance with the chlorine standard can be determined by measuring free or total chlorine. The following methods shall be used to measure chlorine:

(i) ASTM Method D1253-86—"Standard Test Method for Residual Chlorine in Water," which is contained in the book entitled "Annual Book of ASTM Standards," 1996, vol. 11.01, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(ii) Method 4500-Cl D—"Amperometric Titration Method," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(iii) Method 4500-Cl F—"DPD Ferrous Titrimetric Method," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(iv) Method 4500-Cl G—"DPD Colorimetric Method," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(v) Method 4500-Cl E—"Low-Level Amperometric Titration Method," which is contained in the book entitled "Standard Methods for the Examination

tion of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(vi) Method 4500-Cl I—"Iodometric Electrode Technique," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(vii) Method 4500-Cl H—"Syringaldazine (FACTS) Method," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(7) Chlorine dioxide shall be measured using the following methods:

(i) Method 4500-ClO<sub>2</sub> D—"DPD Method," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(ii) Method 4500-ClO<sub>2</sub> E—"Amperometric Method II," which is contained in the book entitled "Standard Methods for the Examination of Water and Wastewater," 19th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(4)(iii)(I) of this section.

(5) *Radiological quality.* (i) Bottled water shall, when a composite of analytical units of equal volume from a sample is examined by the methods described in paragraph (b)(5)(ii) of this section, meet standards of radiological quality as follows:

(A) The bottled water shall not contain a combined radium-226 and radium-228 activity in excess of 5 picocuries per liter of water.

(B) The bottled water shall not contain a gross alpha particle activity (including radium-226, but excluding radon and uranium) in excess of 15 picocuries per liter of water.

(C) The bottled water shall not contain beta particle and photon radioactivity from manmade radionuclides in excess of that which would produce an annual dose equivalent to the total body or any internal organ of 4 millirems per year calculated on the basis of an intake of 2 liters of the water per day. If two or more beta or photon-emitting radionuclides are present, the sum of their annual dose equivalent to the total body or to any internal organ shall not exceed 4 millirems per year.

(D) The bottled water shall not contain uranium in excess of 30 micrograms per liter of water.

(ii) Analyses conducted to determine compliance with the requirements of paragraph (b)(5)(i) of this section shall be made in accordance with the methods described in the applicable sections of "Standard Methods for the Examination of Water and Wastewater," 20th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of "Standard Methods for the Examination of Water and Wastewater," 20th Ed., may be obtained from the American Public Health Association, 1015 15th St. NW., Washington, DC 20005. Copies of the methods incorporated by reference in this paragraph (b)(5)(ii) may also be examined at the National Archives and Records Administration (NARA), or at the Center for Food Safety and Applied Nutrition's Library, 5100 Paint Branch Pkwy., College Park, MD. For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(A) Combined radium-226/-228 shall be measured using the following methods:

(1) Method 7500-Ra B—"Precipitation Method," which is contained in "Standard Methods for the Examination of Water and Wastewater," 20th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this in-

corporation by reference is given in the introductory text of paragraph (b)(5)(ii) of this section.

(2) Method 7500-Ra D—"Sequential Precipitation Method," which is contained in "Standard Methods for the Examination of Water and Wastewater," 20th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in the introductory text of paragraph (b)(5)(ii) of this section.

(B) Gross alpha particle radioactivity shall be measured using the following method: Method 7110 C—"Coprecipitation Method for Gross Alpha Radioactivity in Drinking Water," which is contained in "Standard Methods for the Examination of Water and Wastewater," 20th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in the introductory text of paragraph (b)(5)(ii) of this section.

(C) Beta particle and photon radioactivity shall be measured using the following methods:

(1) Method 7500-Sr B—"Precipitation Method," which is contained in "Standard Methods for the Examination of Water and Wastewater," 20th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in the introductory text of paragraph (b)(5)(ii) of this section.

(2) Method 7500-<sup>3</sup>H B—"Liquid Scintillation Spectrometric Method," which is contained in "Standard Methods for the Examination of Water and Wastewater," 20th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in the introductory text of paragraph (b)(5)(ii) of this section.

(3) Method 7120 B—"Gamma Spectroscopic Method," which is contained in "Standard Methods for the Examination of Water and Wastewater," 20th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The

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availability of this incorporation by reference is given in the introductory text of paragraph (b)(5)(ii) of this section.

(D) Uranium shall be measured using the following methods:

(1) Method 7500-U B—"Radiochemical Method" which is contained in "Standard Methods for the Examination of Water and Wastewater," 20th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in the introductory text of paragraph (b)(5)(ii) of this section.

(2) Method 7500-U C—"Isotopic Method" which is contained in "Standard Methods for the Examination of Water and Wastewater," 20th Ed., which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in the introductory text of paragraph (b)(5)(ii) of this section.

(c) *Label statements.* When the microbiological, physical, chemical, or radiological quality of bottled water is below that prescribed by paragraphs (b)(2) through (b)(5), of this section, the label shall bear the statement of substandard quality specified in §130.14(a) of this chapter except that, as appropriate, instead of or in addition to the statement specified in §130.14(a) the following statement(s) shall be used:

(1) "Contains Excessive Bacteria" if the bottled water fails to meet the requirements of paragraph (b)(2) of this section.

(2) "Excessively Turbid", "Abnormal Color", and/or "Abnormal Odor" if the bottled water fails to meet the requirements of paragraph (b)(3) (i), (ii), or (iii), respectively, of this section.

(3) "Contains Excessive \_\_\_\_\_" with the blank filled in with the name of the chemical for which a maximum contaminant level in paragraph (b)(4) of this section is exceeded (e.g., "Contains Excessive Arsenic," "Contains Excessive Trihalomethanes") except that "Contains Excessive Chemical Substances" may be used if the bottled water is not mineral water.

(4) "Excessively Radioactive" if the bottled water fails to meet the require-

ments of paragraph (b)(5) of this section.

(d) *Adulteration.* Bottled water containing a substance at a level considered injurious to health under section 402(a)(1) of the act is deemed to be adulterated, regardless of whether or not the water bears a label statement of substandard quality prescribed by paragraph (c) of this section.

[60 FR 57124, Nov. 13, 1995; 60 FR 66495, Dec. 22, 1995, as amended at 61 FR 13264, Mar. 28, 1996; 61 FR 14480, Apr. 2, 1996; 63 FR 25769, May 11, 1998; 66 FR 16865, Mar. 28, 2001; 66 FR 17359, Mar. 30, 2001; 66 FR 35373, July 5, 2001; 66 FR 56035, Nov. 6, 2001; 68 FR 15355, Mar. 31, 2003; 68 FR 9881, Mar. 3, 2003; 70 FR 33700, June 9, 2005]

## PART 166—MARGARINE

### Subpart A—General Provisions

#### Sec.

166.40 Labeling of margarine.

### Subpart B—Requirements for Specific Standardized Margarine

166.110 Margarine.

AUTHORITY: 21 U.S.C. 321, 341, 343, 347, 348, 371, 379e.

### Subpart A—General Provisions

#### § 166.40 Labeling of margarine.

The Federal Food, Drug, and Cosmetic Act was amended by Pub. L. 459, 81st Congress (64 Stat. 20) on colored oleomargarine or margarine by adding thereto a new section numbered 407. Among other things, this section requires that there appear on the label of the package the word "oleomargarine" or "margarine" in type or lettering at least as large as any other type or lettering on the label, and a full and accurate statement of all the ingredients contained in such oleomargarine or margarine. It provides that these requirements "shall be in addition to and not in lieu of any of the other requirements of this Act".

(a) Under section 403(g) of the Federal Food, Drug, and Cosmetic Act, any article that is represented as or purports to be oleomargarine or margarine must conform to the definition and standard of identity for oleomargarine



## **Chicago Bottled Water Tax Guide**

As of January 1, 2008 the City of Chicago has enacted the Chicago Bottled Water Tax. The tax rate is \$0.05 per bottle of water. The definitions and tax imposed sections of this new ordinance read as follows:

*"3-43-020 Definitions. 'Bottled water' means all water which is sealed in bottles offered for sale for human consumption. The term does not include any beverage defined as a 'soft drink' under Section 3-45-020 of the Chicago Soft Drink Tax Ordinance, Chapter 3-45 of this Code."*

*"3-43-030 Tax imposed. A tax is hereby imposed on the retail sale of bottled water in the City. This tax shall be paid by the purchaser, and nothing in this chapter shall be construed to impose a tax on the occupation of retail or wholesale bottled water dealer. The tax shall be levied at the rate of \$0.05 per bottle."*

This guide is intended to help identify the types of bottled water that are taxable for the Chicago Bottled Water Tax.

### **Taxable Products**

1. In general, all brands of non carbonated bottled water intended for human consumption.

### **Non-Taxable Examples**

1. Any beverage that qualifies as a "Soft Drink" per the Chicago Soft Drink Tax ordinance.
2. Pedialyte
3. Gatorade
4. Vitamin Water
5. Sobe Life Water
6. Propel Fitness Water
7. Water Joe
8. Perrier, Seltzer Water, Club Soda or Tonic Water
9. Mineral water
10. Distilled water
11. Other products similar to those listed above due to carbonation and/or other features such as flavoring, vitamins, caffeine, or nutritional additives.
12. Water provided by home or business water delivery services, where the water is delivered in a reusable container that is not sold with the water.

The list above is not considered all inclusive and should there be a category of water product or specific water product that is not on the list and for which the examples above do not assist you in determining taxability, please contact the Chicago Department of Revenue at (312)747-1209.