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Friday  
July 1, 1988

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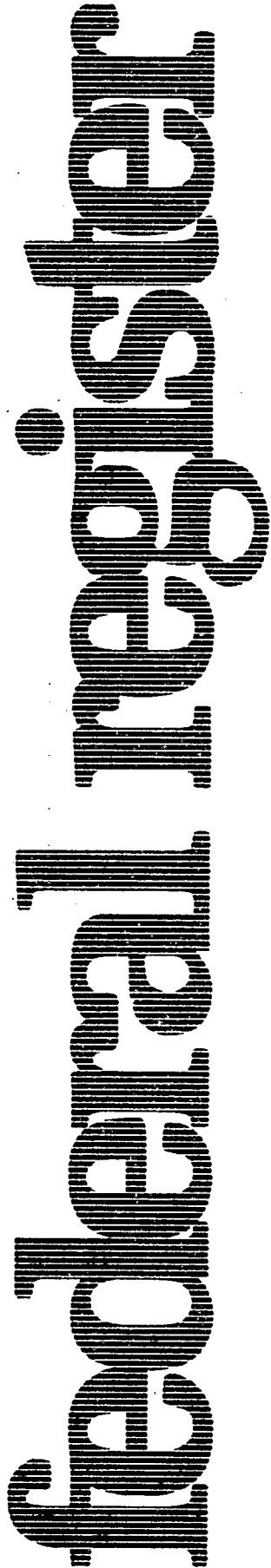
**Part VII**

**Environmental  
Protection Agency**

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40 CFR Parts 141 and 142

**National Primary Drinking Water  
Regulations; Synthetic Organic Chemicals;  
Monitoring for Unregulated Contaminants;  
Correction; Final Rule**



**ENVIRONMENTAL PROTECTION  
AGENCY****40 CFR Parts 141 and 142**

[WH-FRL-3408-6]

**National Primary Drinking Water  
Regulations; Synthetic Organic  
Chemicals; Monitoring for Unregulated  
Contaminants; Correction****AGENCY:** Environmental Protection  
Agency.**ACTION:** Final rule; correction.

**SUMMARY:** EPA is correcting errors in, and clarifying the preamble and the final rule promulgating National Primary Drinking Water Regulations (NPDWRs) for eight volatile synthetic organic chemicals in drinking water and monitoring requirements for 51 unregulated contaminants. This final regulation was published in the *Federal Register* on July 8, 1987 (52 FR 25690).

**FOR FURTHER INFORMATION CONTACT:** Susan MacMullin, Criteria and Standards Division, Office of Drinking Water (WH-550), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. (202/382-4258).

**EFFECTIVE DATE:** This regulation was effective January 1, 1988.

**SUPPLEMENTARY INFORMATION:** EPA promulgated national primary drinking water regulations for benzene, carbon tetrachloride, para-dichlorobenzene, 1,2-dichloroethane, 1,1-dichloroethylene, 1,1,1-trichloroethane, trichloroethylene, and vinyl chloride, and monitoring requirements for 51 unregulated compounds on July 8, 1987 (52 FR 25690). The preamble and regulation contained errors which are corrected by this notice. In addition, this notice clarifies some provisions in the July 8 notice.

**I. Corrections to the Preamble**

There are twenty-two changes to the preamble. Ten of these changes are simply corrections of typographical errors. The other changes are described below:

On page 25691 of the July 8 notice, the term "regulated VOCs" is changed to read "VOCs" to correspond to the rule language (see 40 CFR 141.24(a)(8)). Also, a phrase has been added to clarify that reduced monitoring is allowed when contaminants are not detected during initial monitoring and the system is not "vulnerable" as determined by the State to clarify that a system must meet both conditions to qualify for the reduced monitoring. In addition, the summary of the monitoring requirements for unregulated contaminants on page 25691

is expanded to better reflect the provisions in 40 CFR 141.40.

On page 25702, a phrase is added to the description of the proposed monitoring requirements to clarify the conditions for reduced monitoring under the second option. In the description of the third option, some language on page 25703 is removed because it was incomplete and therefore confusing.

A paragraph has been added to explain that the requirement specifying where the water supplier must sample is intended to insure that samples for ground and surface waters be taken at points representative of the water delivered to the consumer.

A statement has been added and to clarify that only ground-water systems are eligible for reduced initial monitoring.

A footnote is added to Table 3 on page 25705 to make it clear that the repeat monitoring requirement for ground-water systems that are not vulnerable and that do not detect VOCs in the initial monitoring is one sample per source; i.e., one sample every three or five years, as appropriate.

The section describing the use of existing data to fulfill monitoring requirements has been changed to clarify that EPA's intent was to allow the use of high quality data, when available, and not to force duplicative monitoring. EPA did not intend to require that the existing data strictly adhere to the method detection limits and statistical criteria promulgated in this rule. As stated on page 25704, EPA did not intend to allow the results of EPA's national survey, the Ground Water Supply Survey (GWSS), to be used for the initial sample for ground-water systems served by one well. The reason for allowing only systems using one well to use the GWSS data is because the GWSS samples were taken in the distribution system, so that more than one source could have contributed to the sample. These provisions allowing the use of existing high quality data, including GWSS data, were meant to apply to the monitoring requirements for both regulated VOCs and unregulated contaminants. Therefore, EPA is adding two statements to the preamble section on unregulated contaminants to reflect this intent.

An additional change eliminates the statement that public water systems must meet secondary drinking water standards, as well as primary drinking water standards, when using point-of-use devices or supplying bottled water to avoid an unreasonable risk to health. The Agency, and generally owners and operators of public water systems, believe that water supplied to the public

should be palatable as well as devoid of harmful substances and waterborne disease agents. For this reason, the preamble stated that water from point-of-use devices and bottled water used as a condition of a variance or exemption was to meet primary and secondary standards. However, secondary standards are not Federally enforceable and thus EPA is removing the reference to them in the preamble. The Agency, however, encourages States to require public water systems using point-of-use devices and bottled water to provide water that meets secondary standards. Also, in the case of bottled water, it must meet the applicable Food and Drug Administration standards. In addition, the phrase "primary drinking water standards" has been changed to "primary drinking water regulations" to correspond to the statutory terminology.

On page 25711, the term "VOCs" is changed to read "contaminants" to correctly describe the statutory provision at issue.

A sentence has been added that clarifies that the monitoring location for the unregulated contaminants should be after treatment, if treatment exists.

**II. Corrections to the Regulation**

This notice also corrects errors and adds clarifications of the regulatory language. These corrections are described below.

Section 141.24(g)(1) is revised to clarify that sampling must take place after application of any treatment, and that the quarterly monitoring takes place for one year unless paragraph (g)(8)(i) applies, as specified in the preamble.

Section 141.24(g)(7) is revised to clarify that samples must be analyzed within fourteen days of collection. Specifically, the word "should" has been changed to "must." This is consistent with the description of this provision in the preamble.

Various changes are made to the introductory phrase of paragraph (g)(8) and paragraph (g)(8)(i) in § 141.24 to eliminate repetitious language and to clarify that the reduced monitoring requirement is one sample (i.e., not four quarterly samples).

In § 141.24, paragraph (g)(8)(ii)(A) is amended to add parentheses missing from the reference to paragraph (g)(8)(iv).

In § 141.24, paragraph (g)(8)(ii)(B)(1) is revised by changing the sentence to state that monitoring must be repeated every three years. Previously, the sentence said that monitoring must be repeated in three years.

In § 141.24, paragraph (g)(8)(v) is amended by adding the statement that a system is considered vulnerable if it detects any of the contaminants listed in § 141.40(j), in addition to the contaminants already cited in § 141.61(a) and § 141.40(e). This citation to the other group of unregulated contaminants was inadvertently left out of the rule. The intent was to classify a water system as vulnerable if any of the regulated VOCs or the unregulated contaminants (except disinfection-byproducts) were detected.

In § 141.24, paragraph (g)(15) concerns monitoring for unregulated contaminants but was inadvertently included in the section on monitoring for the eight regulated VOCs. It states that any small public water system, defined as one that supplies water to fewer than 150 service connections, may send a letter to the State saying that the system is available for sampling in lieu of actually taking samples. The Safe Drinking Water Act does provide this exception for small systems, but it only applies to monitoring for unregulated contaminants, not compliance monitoring for regulated contaminants. See Section 1445 of the Safe Drinking Water Act. Thus, this notice deletes this provision. (This same provision was properly included in the section on monitoring for unregulated contaminants. See § 141.40(k).) EPA's intent was to require every system to monitor for the regulated volatile organic chemicals at least once to determine whether or not these substances were present at levels above the MCLs.

This notice deletes paragraphs (g)(16) and (17) in § 141.24 because monitoring by consecutive systems is already covered by 40 CFR 141.29. In § 141.24, paragraph (g)(18) is redesignated as paragraph (g)(16) and the OMB control number is added at the end of the paragraph.

In § 141.35, a sentence is added to paragraph (d) to clarify that, for surface water systems, public notification is required only after the first quarter's monitoring for unregulated contaminants, with a statement that monitoring will be conducted for three more quarters with the results available upon request. The rule was silent on the frequency of public notification for systems that sampled more than one time.

Table 1 in § 141.40 is corrected by changing the title to clarify that the table is referring to the date when monitoring is to begin, not the date when monitoring is to be completed.

In § 141.40 (b) and (c), the paragraphs are revised to clarify that both surface

water systems and ground-water systems must sample after the application of any treatment.

In § 141.40(i), a sentence is added which states that the results of EPA's Ground Water Supply Survey may be used for the initial sample for ground-water systems served by a single well. (Other systems may not use these results, for the reasons explained above.)

This notice adds a sentence to § 141.40(k) to explain that public water systems serving fewer than 150 connections that choose to send a letter stating that the system is available for sampling (rather than actually taking samples) are not to send samples of water to the State unless requested and that the letter is to be sent no later than January 1, 1991 (which corresponds to the date by which monitoring would otherwise begin). In addition, § 141.40 is amended by adding a new paragraph (m) which states that the States or public water systems may composite up to five samples when monitoring for the unregulated contaminants as explained in the preamble.

This notice corrects a typographical error in § 141.60(b) (this paragraph was not amended in the July 8, 1987 notice; it was simply reprinted for the convenience of the reader). The correct citation in this paragraph is § 141.62(b)(1).

Section 141.61(b) is changed by omitting the word "generally," which was mistakenly included before the word "available." The 1986 amendments to the SDWA removed the word "generally" from the definition of "feasible" in Section 1412(b)(5).

Under Subpart J, Use of Non-Centralized Treatment Devices, § 141.100(c) is corrected to remove the phrase "Secondary Drinking Water Standards" from the definition of the term "equivalent" and to change the term "standards" to "regulations" for the reasons discussed above in the explanation of preamble changes.

The typographical error in § 141.100(d)(2) is corrected by changing the term "post-contractor" to "post-contractor."

In Part 142, two typographical errors are corrected: the citation in the introductory phrase in item 2.a. and the title of the new section it adds are corrected to read § 142.57 (instead of § 142.56). Section 142.56 remains "Extension for Date of Compliance," as set out in the codification rule for the SDWA amendments (52 FR 20676, June 2, 1987).

Section 142.62 is corrected by changing the title to read "Variances and exemptions from the maximum

contaminant levels for synthetic organic chemicals." because the provisions of this section apply to exemptions, as well as variances. Likewise, paragraphs (e), (f), and (g) in § 142.62 are corrected by including the word "exemptions" in addition to "variances" to clarify that these paragraphs refer to both variances and exemptions, as indicated in the preamble. Also, in paragraphs (b) and (c), the references to "§ 141.61(a)" are corrected to read "§ 142.62(a)." Finally, § 142.62(g)(5) is corrected by changing "post-contractor" to "post-contractor."

William A. Whittington,

Acting Assistant Administrator for Water.

Date: June 23, 1988.

The following corrections are made in FRL-3213-8, National Primary Drinking Water Regulations; Synthetic Organic Chemicals; Monitoring for Unregulated Contaminants, published in the Federal Register on July 8, 1987 (52 FR 25690).

#### PARTS 141 AND 142—[AMENDED]

1. On page 25691, column 2, line 14, remove the word "regulated" and on line 15, add the phrase "and the system is not vulnerable" after "sample".
  2. On page 25691, column 3, line 22, after "years", add the phrase "for ground-water sources and quarterly sampling of each source for one year every five years for surface water sources."
  3. On page 25691, column 3, line 20, change "50" to "51".
  4. On page 25697, column 2, line 42, in the table of MCLs, change the last number from "0.2" to "0.20."
  5. On page 25698, column 3, lines 35-36, change "86 cents/gallon" to "86 cents/1,000 gallons."
  6. On page 25702, column 3, line 56, add the phrase "and the system is not vulnerable" after "sample".
  7. On page 25703, column 1, lines 6-11, remove the following phrase and sentence: "i.e., each system samples once every 3 months for a year. If no VOCs are found and the system is not vulnerable to contamination, the State may reduce the sample to that taken in the first quarter."
  8. On page 25703, column 2, following line 55, add the following text:  
"Thus, surface water systems may sample at points in the distribution system representative of each source or at entry points to the distribution system. Ground-water systems must sample at points of entry to the distribution system representative of each well.
- The sampling points specified in this rule will assure that samples of ground and surface water sources are taken at

points representative of the water delivered to the consumer. The entrance to the distribution system is an appropriate sampling point for treated water unless a number of wells in the well field are being used intermittently. In this case, the system must either sample the raw water from each source to assure that the MCL at each source is not exceeded or develop a monitoring scheme for sampling when new sources (e.g., wells) are brought on line or taken off line. Since the regulation requires quarterly sampling to be representative, more than one sample per quarter may be necessary. In the case of multiple sources, the State would determine the monitoring requirements that best ensure sampling is representative of each source."

9. On page 25704, column 2, line 6, change "Table 4" to "Table 3."

10. On page 25704, column 3, line 43, change "NTNCW systems" to "NTNCWS".

11. On page 25704, column 3, lines 46-48, the sentence which reads "If a system is not classified as 'vulnerable' and the first quarterly sample does not detect VOCs, the State may waive the requirement for additional sampling." is revised to read as follows:

"If a ground water system is classified as 'not vulnerable' and the first quarterly sample does not detect VOCs the State may waive the requirement for additional sampling.

In general, in determining vulnerability, States should assess the presence of both regulated VOCs and unregulated contaminants."

12. On page 25705, Table 3, change the subheading "Ground Water" to "Ground Water 2" and add the following as a footnote to the bottom of the table:

"<sup>2</sup> One sample except when VOCs are detected."

13. On page 25705, column 1, lines 60-65, the phrase which reads "Allow the use of monitoring data collected after January 1, 1983, in lieu of new data for the first sample if the data are of an acceptable quality and will provide information equivalent to that required in the rule" is revised to read as follows:

"Allow the use of monitoring data collected after January 1, 1983, for purposes of compliance monitoring. If the State determines that the data are of an acceptable quality, i.e., consistent with the quality of data collected as specified in the rule, the State may authorize the use of that data to fulfill the system's initial monitoring requirements if the system is determined by the State not to be vulnerable. "Consistent" means the sampling location, sampling techniques, and analytical methods were performed by

qualified laboratories (i.e., laboratories that are THM-certified) with adequate quality control. EPA does not intend that the data must adhere strictly to the method detection limits and statistical criteria in the rule for new analyses.

14. On page 25707, column 1, line 60, change "Table 3" to "Table 5."

15. On page 25707, column 2, line 60, change "Table 3" to "Table 5."

16. On page 25708, column 2, line 49, change "section III.A.1" to "Section III.D."

17. On page 25709, column 1, line 54, change the last word "is" to "of."

18. On page 25709, column 1, lines 60-63 which reads "Equivalent means water that meets all Primary and Secondary Drinking Water Standards and is not an acceptable quality." is revised to read as follows:

"Equivalent means water that is of acceptable quality and meets all national primary drinking water regulations."

19. On page 25711, column 1, line 17, change "VOCs" to "contaminants".

20. On page 25711, column 1, line 29, after "control." insert the following sentence: "EPA does not intend that the data must adhere strictly to the method detection limits and statistical criteria in the rule for new analyses."

21. On page 25711, column 1, lines 30, 35, and 36, change "33" to "34".

22. On page 25711, column 1, line 47, at the end of the line, add the following sentence:

"In addition, results of EPA's Ground Water Supply Survey can be used in a similar manner for systems supplied by a single well."

23. On page 25711, column 2, line 4, after "Monitoring." add the following sentence:

"All samples for unregulated contaminants should be taken after treatment, if any."

#### § 141.24 [Amended]

24. In § 141.24(g)(1), on page 25712, column 3, line 57, after "well", insert "after any application of treatment."

25. The second and third sentences of § 141.24(g)(1) on page 25712, column 3, lines 57-65, are revised to read as follows:

"Sampling must be conducted at the same location(s) or more representative location(s) every three months for one year except as provided in paragraph (g)(8)(i) of this section."

26. In § 141.24(g)(7) on page 25713, column 2, lines 8 through 10, change "Samples should be analyzed within fourteen days of collection." to "Samples must be analyzed within fourteen days of collection."

27. In the introductory phrase of § 141.24(g)(8) on page 25713, column 2, lines 60-61, remove the phrase "as follows".

28. In § 141.24(g)(8)(i)(A) on page 25713, column 3, line 1, after "monitoring", insert "may be reduced to one sample and".

29. In § 141.24(g)(8)(i)(B) (1) and (2) on page 25713, column 3, lines 8 and 10, after "Monitoring", insert "(i.e., one sample)" in both lines.

30. In § 141.24(g)(8)(ii)(A) on page 25713, column 3, line 25, the citation is corrected to read "(g)(8)(iv)".

31. In § 141.24(g)(8)(ii)(B)(1) on page 25713, column 3, lines 33 and 34, change "repeated in three years" to "repeated every three years."

32. Section 141.24(g)(8)(v) on pages 25713 and 25714, which reads "A system is deemed to be vulnerable for a period of three years after any positive measurement of one or more contaminants listed in either § 141.61(a) or § 141.40(e) except for trihalomethanes or other demonstrated disinfection by-products" is corrected to read as follows:

"(v) A system is deemed to be vulnerable for a period of three years after any positive measurement of one or more contaminants listed in § 141.40 (e) or (j) or § 141.61(a), except for trihalomethanes or other demonstrated disinfection by-products."

33. In § 141.24 on page 25714, column 3, lines 10-32, paragraphs (g) (15), (16), and (17) are deleted.

34. In § 141.24, on page 25714, column 3, paragraph (g)(18) is redesignated as paragraph (g)(15) and the following is added at the end of the paragraph:

(Approved by the Office of Management and Budget under control number 2040-0090)

#### § 141.35 [Amended]

35. In § 141.35, on page 25715, column 1, line 26, the following sentence is added to the end of paragraph (d):

"For surface water systems, public notification is required only after the first quarter's monitoring and must include a statement that additional monitoring will be conducted for three more quarters with the results available upon request."

36. In § 141.40(a) on page 25715, column 1, the title of Table 1 is corrected to read as follows:

"Table 1. MONITORING SCHEDULE BY SYSTEM SIZE"

37. In § 141.40, the first sentence in paragraph (b), on page 25715, column 1, line 48, is corrected to read as follows:

"(b) Surface water systems shall sample at points in the distribution system representative of each water source or at entry points to the distribution system after any application of treatment."

38. In § 141.40(c), on page 25715, column 1, line 54, after "well" insert "after any application of treatment".

39. In § 141.40, at the end of paragraph (i) on page 25715, column 3, line 42, add the following sentence: "In addition, the results of EPA's Ground Water Supply Survey may be used in a similar manner for systems supplied by a single well."

40. In § 141.40 paragraph (k) on page 25715, column 3, lines 61 through 67, is correctly revised and paragraph (m) is added after paragraph (l) on page 25716, column 1, to read as follows:

**§ 141.40 Special monitoring for organic chemicals.**

(k) Instead of performing the monitoring required by this section, a community water system or non-transient non-community water system serving fewer than 150 service connections may send a letter to the State stating that the system is available for sampling. This letter must be sent to the State no later than January 1, 1991. The system shall not send such samples to the State, unless requested to do so by the State.

(m) States or public water systems may composite up to five samples when monitoring for substances in § 141.40 (e) and (j) of this section.

41. In § 141.60, paragraph (b) on page 25716, column 1, lines 27 and 28, is corrected to read as follows:

**§ 141.60 Effective dates.**

(b) The effective date for § 141.62(b)(1) is October 2, 1987.

42. In § 141.61, paragraph (b) on page 25716, column 1, lines 54-65, is correctly revised to read as follows:

**§ 141.61 Maximum contaminant levels for organic chemicals.**

(b) The Administrator, pursuant to section 1412 of the Act, hereby identifies

the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for synthetic organic chemicals (§ 141.61(a)): central treatment using packed tower aeration; central treatment using granular activated carbon for all these chemicals except vinyl chloride.

43. Section 141.100(c) on page 25716, column 2, is correctly revised to read as follows:

**§ 141.100 Criteria and procedures for public water systems using point-of-entry devices.**

(c) The public water system must develop and obtain State approval for a monitoring plan before point-of-entry devices are installed for compliance. Under the plan approved by the State, point-of-entry devices must provide health protection equivalent to central water treatment. "Equivalent" means that the water would meet all national primary drinking water regulations and would be of acceptable quality similar to water distributed by a well-operated central treatment plant. In addition to the VOCs, monitoring must include physical measurements and observations such as total flow treated and mechanical condition of the treatment equipment.

44. In § 141.100(d)(2) on page 25716, column 2, line 56, change "post-contractor" to "post-contactor."

45. On page 25716, column 3, lines 17 and 19, change "§ 142.56" to "§ 142.57."

46. The title of § 142.62, on page 25716, column 3, and § 142.62 (b), (c), (e), (f), (g) introductory text and (g)(5) on page 25717, columns 1 through 3, are correctly revised to read as follows:

**§ 142.62 Variances and exemptions from the maximum contaminant levels for synthetic organic chemicals.**

(b) A State shall require community water systems and non-transient non-community water systems to install and/or use any treatment method identified in § 142.62(a) as a condition for granting a variance except as provided in paragraph (c) of this section.

If, after the system's installation of the treatment method, the system cannot meet the MCL, the system shall be eligible for a variance under the provisions of section 1415(a)(1)(A) of the Act.

(c) If a system can demonstrate through comprehensive engineering assessments, which may include pilot plant studies, that the treatment methods identified in § 142.62(a) would only achieve a *de minimis* reduction in contaminants, the State may issue a schedule of compliance that requires the system being granted the variance to examine other treatment methods as a condition of obtaining the variance.

(e) The State may require a public water system to use bottle water or point-of-use devices or other means as a condition of granting a variance or an exemption from the requirements of § 141.61(a), to avoid an unreasonable risk to health.

(f) Public water systems that use bottled water as a condition for receiving a variance or an exemption from the requirements of § 141.61(a) must meet the following requirements in either paragraph (f)(1) or (f)(2) of this section in addition to requirements in paragraph (f)(3) of this section:

(g) Public water systems that use point-of-use devices as a condition for obtaining a variance or an exemption from NPDWRs for volatile organic chemicals must meet the following requirements:

(5) The design and application of the point-of-use devices must consider the tendency for an increase in heterotrophic bacteria concentrations in water treated with activated carbon. It may be necessary to use frequent backwashing, post-contactor disinfection, and Heterotrophic Plate Count monitoring to ensure that the microbiological safety of the water is not compromised.