

ORAL ARGUMENT NOT YET SCHEDULED

No. 22-7063

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**UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

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AMERICAN SOCIETY FOR TESTING AND MATERIALS, *et al.*,

*Appellants,*

v.

PUBLIC.RESOURCE.ORG, INC.,

*Appellee.*

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Appeal from the United States District Court  
for the District of Columbia  
Hon. Tanya S. Chutkan, No. 1:13-cv-1215-TSC

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**BRIEF OF NATIONAL ASSOCIATION  
FOR THE ADVANCEMENT OF COLORED PEOPLE  
AS *AMICUS CURIAE* IN SUPPORT OF APPELLEE AND AFFIRMANCE**

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## CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to D.C. Cir. R. 28(a)(1), *amicus curiae* certifies as follows:

### A. Parties and Amici

Except for the following, and any *amici curiae* that have yet to appear in this Court, all parties, intervenors, and *amici* appearing before the district court and in this Court are listed in the Brief of Appellee:

- Raymond A. Mosley and Robert C. Tapella
- American Federation of State, County and Municipal Employees
- Prime Access Consulting, Inc.
- Intellectual Property Law Professors
- National Association for the Advancement of Colored People (the “NAACP”)

Pursuant to Fed. R. App. P. 26.1 and D.C. Cir. R. 26.1, *amicus curiae* the NAACP states that it has no parent corporations and that no publicly held corporation or other entity possesses a 10% or greater ownership interest in *amicus curiae*.

### B. Rulings Under Review

References to the ruling at issue appear in the Brief of Appellee.

### C. Related Cases

This case was previously before this Court in *American Society for Testing & Materials, et al. v. Public.Resource.Org, Inc.*, No. 17-7035 (D.C. Cir.). Counsel is not aware of any other related cases pending in this Court or any other court.

## STATEMENT REGARDING SEPARATE BRIEFING

Pursuant to D.C. Cir. R. 29(d), counsel for *amicus curiae* certifies that a separate brief is necessary. Counsel has coordinated with other *amici* supporting Appellee and sought to ensure that this brief will aid in the Court's consideration of the case by raising novel points not made by Appellee or other *amici*. In particular, as the country's oldest and largest civil rights organization, the NAACP is in a unique position to provide the Court with relevant insight, expertise, and perspective that address the impact of this case on the civil rights of economically and politically marginalized communities. Further, to the knowledge of counsel, this brief presents certain legal arguments that no other *amici* is presenting.

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## **GLOSSARY OF ABBREVIATIONS**

ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASTM	American Society for Testing and Materials
EPA	Environmental Protection Agency
NAACP	National Association for the Advancement of Colored People
NFPA	National Fire Protection Association
OMB	Office of Management and Budget

## **STATUTES AND REGULATIONS**

Except for the pertinent statutory and regulatory provisions reproduced in the Addendum to this brief, all applicable statutes and regulations are contained in the Brief of Appellee.

## STATEMENT OF IDENTITY, INTEREST, AND AUTHORITY TO FILE<sup>1</sup>

The NAACP is the country's oldest and largest civil rights organization. The NAACP works to ensure the political, educational, social, and economic equality of all citizens and strives to create a society free from racial discrimination. The NAACP has over two million supporters and members. For more than a century, the NAACP has used collective action and the legal process to champion equality and justice, including in landmark cases like *NAACP v. Button*, 371 U.S. 415 (1963).

The outcome of this case will have profound civil rights implications for NAACP members and communities, and for the NAACP's interest in redressing injustice and inequality. People of color are more likely to be economically and politically marginalized, to have limited access to legal resources, and to be disadvantaged in their relationships with landlords and others in positions of power. These disparities will only be further entrenched if NAACP members, communities, and volunteers are denied full and equal access to the standards at issue in this case.

The NAACP fights for equal access to the law, especially on behalf of Black and low-income communities. *See, e.g.,* Complaint, *NAACP v. Kohn*, No. 3:22-cv-01007-MGL, 2022 WL 970710 (D.S.C. Mar. 30, 2022) (advocating for access to

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<sup>1</sup> *Amicus* submits this brief with the consent of all parties. Fed. R. App. P. 29(a)(2). No counsel for any party authored this brief in whole or in part, and no person or entity other than *amicus* or its counsel made a monetary contribution intended to fund the preparation or submission of this brief. Fed. R. App. P. 29(a)(4)(E).

judicial records); Brief for NAACP as Amicus Curiae Supporting Plaintiffs, *Upsolve, Inc. v. James*, No. 1:22-cv-00627-PAC, 2022 WL 1639554 (S.D.N.Y. May 24, 2022) (defending the ability of non-lawyers to provide limited legal advice). The NAACP files this brief in support of Public Resource because, for as long as it has existed, the NAACP has championed the right of its members and their communities to access the law so that they may understand their legal responsibilities, vindicate their legal rights, and participate in public discourse and debate about the merits of the law and its impact on their lives.<sup>2</sup>

### SUMMARY OF ARGUMENT

Equal access to the law is fundamental to a just society. The technical standards at issue are essential sources of law that regulate health and safety in countless domains. This Court can protect free and equitable access to these standards under two copyright doctrines: government edicts and fair use.

First, the standards at issue in this case are uncopyrightable government edicts. The government edicts doctrine affirms a principle that the NAACP has long advocated for: everyone should have access to the laws that govern them. Access to these standards is essential for NAACP members and communities to comprehend their legal responsibilities, vindicate their legal rights, and engage in public

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<sup>2</sup> *Amicus* would like to thank Annie Dorsen and Nicola Morrow, students in NYU's Technology Law and Policy Clinic, for their significant contributions to this brief.

education, debate, and advocacy on legal and regulatory issues that directly impact their health, housing, and safety. By ensuring that “no one can own the law,” the government edicts doctrine serves as a bulwark against the kind of gatekeeping that has historically excluded people of color and poor people from knowing the law, changing the law, and asserting their rights under the law. *See Georgia v. Public.Resource.Org, Inc.*, 140 S. Ct. 1498, 1507 (2020). Here, it should do the same.

The principle that “no one can own the law” guides the authorship inquiry that the Supreme Court recently emphasized is at the heart of the government edicts analysis. Accordingly, this Court must examine the relationship between the state and the standards developing organizations, the intent of the standards developing organizations when drafting and publishing technical standards, and the nature of the standards that the organizations produce. Because the standards developing organizations have an implicit delegatory relationship with the state, because they intend their standards to be adopted into law, and because the standards themselves constitute “the law,” they are government edicts and are therefore uncopyrightable.

Second, even if the incorporated standards are copyrightable, Public Resource’s reproduction of them is a permissible and valuable fair use, enabling organizations like the NAACP to educate marginalized communities about the law,

empower people to participate in public discourse and political advocacy, and help Black and low-income people assert their rights.

Indeed, the four factors of the fair use test all weigh in favor of not just affirming, but expanding, the district court's fair use holding. This Court should interpret fair use to encompass incorporated standards, previously incorporated standards, and essential explanatory materials. As this Court previously instructed, the lower court conducted a close examination of the facts and found that Public Resource satisfied the first factor because it distributed these standards for the purpose of educating the public about the law and facilitating public debate. This is the very purpose for which the NAACP uses technical standards, to educate low-income individuals and communities about their legal import in areas such as housing, health, safety, and the ways in which standards impact individual and collective legal rights.

The second factor likewise favors fair use, not only because standards are factual works, but because they are legal facts, part of the law itself. Access to the law requires access to the precise language of the standards.

Under the third fair use factor, access to complete standards is reasonable and even necessary to achieve the purposes of understanding, interpreting, and advocating for changes to the law. Without access to the full text of the standards,

NAACP members and communities would be left in an unfair and unequal position in legal and political arenas.

Finally, the fourth factor also weighs strongly in favor of fair use because the public benefit of providing access to the technical standards for marginalized and low-income communities is significant, and the potential for market harm from such access is minor. Moreover, because Public Resource's uses are transformative under the first factor, this Court should exclude any alleged loss of revenue from the fourth factor's market harm analysis.

A just legal system depends upon free and equitable access to the law. Whether under the government edicts or fair use doctrine, this Court should uphold the principle that free, equitable, and comprehensive access to the law is a democratic right.

## ARGUMENT

### **I. The government edicts doctrine ensures equal access to the law for marginalized communities.**

The Supreme Court recently reaffirmed that “no one can own the law.” *Georgia*, 140 S. Ct. at 1507. The government edicts doctrine mandates that the law live in the public domain so that everyone can access it freely. The doctrine—which emerged from a trio of late-19th-century cases concerning the copyrightability of judicial opinions—is animated by a principle that the NAACP has long defended: everyone deserves equal access to the law. *See id.*; *Banks v. Manchester*, 128 U.S.

244 (1888); *Wheaton v. Peters*, 33 U.S. 591 (1834); *Callaghan v. Meyers*, 128 U.S. 617 (1888). No matter a person's racial identity or socioeconomic status, she is entitled to know the law, to debate the law, and to vindicate her rights under the law.

Accordingly, guided by this animating principle, this Court should take a functional approach to determining the "authorship" of the incorporated standards at issue. To ensure equal access to the law, the Court should not merely consider who put pen to paper, but also inquire into the relationship between the government and standards developing organizations, the intent of the standards developing organizations, and the nature of the materials that the standards developing organizations produce. Taken together, all three of these factors indicate that the standards here are government edicts and are therefore uncopyrightable.

The principle that "no one can own the law" is fundamentally and practically important to organizations like the NAACP that organize and advocate in pursuit of meaningful access to justice and that devote themselves to eliminating the barriers that stand between people and the law that governs them. Here, Appellants' copyright claims constitute such a barrier. If Appellants succeed, free and equal access to the standards at issue in this case will be frustrated, and Black people, other people of color, and poor people will be the ones who suffer most as a result.

**A. The government edicts doctrine dictates that “no one can own the law.”**

In its recent return to the government edicts doctrine, the Supreme Court was emphatic that “the animating principle behind the government edicts doctrine is that no one can own the law.” *Georgia*, 140 S. Ct. at 1501. Acknowledging the centrality of this principle, the Supreme Court tethered the logic of copyright law to the commonsense notion that people must have access to the laws that govern them. In *Georgia*, the majority articulated its discomfort with a system in which access to the law is contingent on ability to pay. *See id.* at 1512–13. Rejecting a two-tiered system of access to the law in which those with the ability to pay have “premium” access while those who do not are relegated to an “economy-class” version of the law, the Court made clear that equal access to legal materials is not merely symbolic but has real “practical significance . . . to litigants and citizens.” *Id.* In order to be full and equal participants in a functional democratic society, people must be able to read and interpret the law for themselves. After all, “[e]very citizen is presumed to know the law,” and “it needs no argument to show that justice requires that all should have free access” to its contents. *Nash v. Lathrop*, 6 N.E. 559, 560 (Mass. 1886).

The activities of advocacy groups like the NAACP help illustrate exactly why access to the law is so essential. For example, in 2021, the NAACP launched its Housing Navigator program to assist tenants facing unsafe living conditions, housing insecurity, and eviction. The Navigator Program empowers tenants to

challenge evictions and other improper or unlawful landlord practices. *Housing Navigator Program Intake Form and Housing Resources*, NAACP Columbia Branch Unit #5508, <https://perma.cc/J3T4-89S3>. It does so, in part, by educating tenants about the technical standards to which landlords and housing authorities are required to adhere. Access to the text of standards incorporated into fire safety codes, for example, could prove decisive for tenants seeking to demonstrate negligent conduct by their landlords. *See* S.C. Code Ann. Regs. 71-8300.2(P) (2022) (incorporating fire safety standards published by NFPA). Without access to these standards, many tenants would be unable to assert viable defenses against predatory landlord behavior or access safe and stable housing because they would lack information essential to understanding the relevant housing codes.

Likewise, in September of this year, the NAACP began a campaign to urge the Environmental Protection Agency to investigate the civil rights implications of Jackson, Mississippi's water emergency. *See* NAACP, Complaint Under Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, and 40 C.F.R. Part 7 Regarding Discrimination by the State of Mississippi Gravely Adversely Impacting the Drinking Water System for the City and the Health and Well Being of the People of Jackson, Mississippi (Sept. 27, 2022), <https://perma.cc/G9DG-PHW8> (“NAACP Complaint”). Environmental justice organizers in Jackson and elsewhere need access to standards incorporated into local, state, and federal drinking water

regulations to develop effective political advocacy campaigns that combat unsafe and illegal drinking water conditions. *See, e.g.*, Miss. Residential Code § P2906.4 (2018), <https://perma.cc/QRS3-F9H6>.

The standards in this case are intrinsic and essential components of laws that impact the housing, health, and safety of millions. Any analysis of their authorship and copyrightability must therefore be guided by the animating principle that “no one can own the law.” *Georgia*, 140 S. Ct. at 1507.

**B. The animating principle of *Georgia* must inform the authorship inquiry.**

In applying *Georgia* to the facts of this case, the lower court interpreted the authorship inquiry too narrowly and too literally. JA\_\_\_ (Dkt-239 at 20) (suggesting that there must be “evidence that a judge or legislator wrote Plaintiffs’ . . . standards” for the government edicts doctrine to apply). The Supreme Court in *Georgia* dispensed with the idea that the authorship inquiry is merely a literal assessment of who put pen to paper, or fingers to keyboard. *See Georgia*, 140 S. Ct. at 1508–09. Instead, courts must refer back to the purpose of the government edicts doctrine—equal access to the law—in determining who should be considered the author of the work in question and whether or not that work should exist in the public domain.

In doing so here, this Court should consider at least three relevant factors: the existence of a delegatory relationship between governments and standards developing organizations, the intent of the standards developing organizations to

have their standards adopted into law, and the binding or regulatory nature of the standards themselves. *See id.* at 1511, 1512–13; *Int’l Code Council, Inc. v. Upcodes, Inc.*, No. 17-cv-6261-VM, slip op. at 49 (S.D.N.Y. May 26, 2020). These three factors, which are derived from both the *Georgia* opinion itself and the Southern District of New York’s artful application of that opinion in the factually similar *Upcodes* case, take a functional approach to authorship that ensures equal access to the law under the government edicts doctrine. *See Georgia*, 140 S. Ct. at 1507, 1512–13; *Upcodes, Inc.*, No. 17-cv-6261-VM, slip op. at 49.

**1. The public-private partnerships between governments and standards developing organizations represent an implicit delegation of lawmaking responsibilities.**

As in *Georgia*, the authorship inquiry must take stock of the relationship between the standards developing organizations and the state, whether that relationship is a formalized work-for-hire agreement or an informal understanding between parties. Governments cannot bypass the government edicts doctrine’s precept that “no one can own the law” by delegating its lawmaking duties to private parties. *See Georgia*, 140 S. Ct. at 1507. In *Georgia*, private employees of LexisNexis produced annotations to the Georgia Code within the context of a work-for-hire agreement, a form of delegatory relationship between the State and the producers of those materials. *Id.* at 1505.

Here, the standards developing organizations have a similar delegatory relationship with lawmaking bodies. These public-private partnerships are not contractual work-for-hire agreements, but they function identically to assist governments in creating law. A work-for-hire agreement is simply one example of the kind of delegatory relationship between private authors and government actors that courts should consider when making a government edicts assessment. Taking to heart *Georgia's* imperative, a government edicts test should be more flexible than a bright-line rule that hinges on the existence or nonexistence of a work-for-hire agreement. Otherwise, states could evade the government edicts doctrine and impose a two-tiered system of access to the law simply by avoiding explicit work-for-hire agreements. *See id.* at 1512–13.

Like LexisNexis, Appellants furnish technical expertise and labor. *Id.* at 1508. And also like LexisNexis, their work product is designed to be incorporated into law. *Id.* at 1509. Appellants trumpet the fact that they work with legislators to develop technical standards. *See* James Olshefsky, *ASTM International Experience with Incorporation by Reference* 14, ASTM International (Nov. 12, 2019), <https://perma.cc/NH3J-N9DF> (describing how ASTM “[w]ork[s] with [f]ederal [a]gencies”); *Government Affairs Committee*, ASHRAE, <https://perma.cc/979E-JRRY> (explaining that “building connections with representatives from . . . government entities . . . is a critical goal of ASHRAE for the adoption and

use of [their] [s]tandards”); *The Value of Standards Development Organizations*, NFPA, <https://perma.cc/4WU6-LYS5> (referencing federal regulation requiring collaboration between standards developing organizations and federal government). Indeed, Appellants admit that “many agencies have established good working relationships with standards developers. Agency personnel often participate in the standards development process.” Emily Bremer, *Standards, Regulations, and Incorporation by Reference*, ASTM International (Dec. 2012), <https://perma.cc/9JXZ-3YLD>; see also ASHRAE, *supra*; NFPA, *supra*; JA\_\_\_\_-\_\_\_\_ (Dkt-203-2 ¶¶ 184–87); *Circular No. A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities* 28, Office of Mgmt. and Budget (Jan. 22, 2016), <https://perma.cc/3FKN-X4MS> (“OMB Circular”). Furthermore, government agencies provide “direct financial support” to standards developing organizations. OMB Circular at 28. When it comes to the development of federal standards, agency personnel are *required* to participate in the standards development process. *Id.* at 27.

In arguing that their standards should be protected by copyright, Appellants emphasize the benefits of their close partnerships with governments. As the Court previously noted, for example, incorporation by reference of private standards “eliminate[s] the cost to the Federal government of developing its own standards’ and ‘further[s] the reliance upon private sector expertise to supply the Federal

government with cost-efficient goods and services.” *Am. Soc’y for Testing & Materials v. Public.Resource.Org, Inc.*, 896 F.3d 437, 442 (D.C. Cir. 2018) (“*ASTM IP*”) (quoting OMB Circular at 14). But as these examples make clear, any such benefits are derived precisely from governments’ delegation of lawmaking responsibilities.

Thus, the implicit delegatory relationship between governments and standards developing organizations weighs in favor of construing the technical standards as uncopyrightable government edicts.

**2. Standards developing organizations intend and encourage the adoption of their standards into law.**

When considering whether to apply the government edicts doctrine, the Court should also consider whether standards developing organizations intend and encourage the adoption of their standards into law. *See Upcodes, Inc.*, No. 17-cv-6261-VM, slip op. at 49 (“[A] privately-authored work may ‘become the law’ . . . based on . . . whether the private author intended or encouraged the work’s adoption into law.”). Standards developing organizations cannot benefit from copyright protection if they are knowingly and intentionally creating the law, which the government edicts doctrine insists must live in the public domain. *See Georgia*, 140 S. Ct. at 1507. If they intend or encourage standards’ adoption into law, and the standards are so adopted, then the standards must be deemed uncopyrightable government edicts.

Appellants both intend and encourage the adoption of its standards into law. *See* Olshefsky, *supra* (listing several “[b]enefits of [i]ncorporating [b]y [r]eference”); ASHRAE, *supra* (characterizing the collaboration with government officials for the purpose of incorporating standards as a “critical goal” of ASHRAE); NFPA, *supra* (explaining that the incorporation of NFPA’s standards into law has made “society and markets work better” for “more than a century”); *see also* *Upcodes, Inc.*, No. 17-cv-6261-VM, slip op. at 49 (explaining that standards are uncopyrightable because standards developing organizations “intend[] or encourage[]” the adoption of their standards into law). Indeed, they proudly advertise the fact that thousands of their standards become law. *See, e.g., ASTM Fact Sheet*, ASTM International, <https://www.astm.org/about/overview/fact-sheet.html>; *see also* JA\_\_\_ (Dkt-124-5); JA\_\_\_ (Dkt-122-3 at 24).

**3. The standards at issue are legal materials essential to the comprehension, interpretation, and vindication of legal rights and responsibilities.**

Finally, this Court should consider the nature of the standards in determining whether the government edicts doctrine applies. As part of its housing and environmental justice advocacy efforts, the NAACP uses standards like those at issue in this case to educate affected communities precisely because they are intrinsic and fundamental components of the law. Access to these standards is crucial for NAACP members and communities to understand their legal responsibilities,

vindicate their legal rights, and advocate for legal reform. Because the standards are the law, and because “no one can own the law,” it follows that nobody—least of all NAACP members and communities—should have to confront unnecessary barriers to access them.

Municipal, state, and federal legislatures rely on standards developing organizations to produce the technical standards that govern many aspects of American life, from the requisite number of emergency exits in an apartment building to the acceptable angle of a playground slide. *See, e.g.*, NFPA 101, JA\_\_\_\_ (Dkt-239-1 at 21) (emergency exits); ASTM F1487-21, ASTM International, <https://perma.cc/9KHF-UCCR> (playground codes). Once incorporated, technical standards are legal materials that articulate, explain, and contextualize the law. While not every “privately-authored, copyrighted work” referenced in a statute is uncopyrightable, works that are adopted into law and “expressly regulate[] a broad area of private endeavor” are quintessential government edicts. *Upcodes, Inc.*, No. 17-cv-6261-VM, slip op. at 48–49 (“The law is in the public domain, and the public must be afforded free access to it.”).

Because the standards in this case regulate a vast array of private endeavors—because they are not merely referenced as citations in statutes and regulations, but actually constitute the law itself—the nature of the technical standards weighs in favor of construing them as uncopyrightable government edicts.

**II. A finding of fair use furthers the NAACP’s educational mission and ensures equal access to the law for Black and low-income communities.**

Every year, the NAACP helps thousands of Black and low-income people fight against unjust and illegal actions, enforce their existing rights to safe and stable housing, and challenge environmental law violations. Fighting against these actions helps ensure that these communities have safe places to live and healthy workplaces, schools, and playgrounds for themselves and their children. Yet to protect their rights, these communities need to know the law. Without the information contained within the technical standards at issue in this case, Black and low-income communities are fighting blind against landlords and other powerful and well-resourced adversaries. For these communities, access to the standards is access to justice. If this Court declines to apply the government edicts doctrine in this case, it should protect equal access to the law under the fair use doctrine.

**A. Public Resource’s publication of standards serves a transformative purpose under the first factor because it supports the NAACP’s nonprofit educational mission to help communities assert their legal rights and advocate for legal reform.**

By making standards freely available to the NAACP, its volunteers, and the communities it serves, Public Resource satisfies the first factor of the fair use analysis. As this Court noted, “in certain circumstances, distributing copies of the law for purposes of facilitating public access could constitute transformative use.” *ASTM II*, 896 F.3d at 450. And indeed, Public Resource’s reproduction “provides an

entirely new use for the original work.” *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1165 (9th Cir. 2007) (finding that “improving access to information” related to copyrighted works was “highly transformative”). That “new use” includes the NAACP’s assistance to *pro se* litigants and its political advocacy efforts, part of Public Resource’s transformative purpose “to promote public discourse by providing free access to the law.” JA\_\_\_ (Dkt-239 at 26). These uses are demonstrably different from the standards developing organizations’ mission to publish best practices for engineering firms and trade professionals. *See* ASTM International, *ASTM International: Connecting the Dots*, YouTube (Dec. 4, 2017), [https://www.youtube.com/watch?v=LacuO9Z7\\_QE](https://www.youtube.com/watch?v=LacuO9Z7_QE); *ASHRAE’s Mission and Vision*, ASHRAE, <https://perma.cc/P38C-JXF4>; *Codes and Standards*, NFPA, <https://perma.cc/3XUF-H9Z3>.

The NAACP agrees with the district court that Public Resource’s reproduction serves a transformative purpose, but the first factor authorizes a more expansive reading of fair use than the lower court adopted. In applying this Court’s instructions, the district court found that publication of the standards serves a purpose different from that of the standards developing organizations in two ways, by informing the public about the law and providing “information essential to comprehending one’s legal duties.” *ASTM II*, 896 F.3d at 450. These are valuable purposes which justify a finding of fair use. But the lower court did not adequately consider that a

determination of what information qualifies as essential depends upon the uses to which it is put.

The standards are indispensable to the NAACP and the communities that it supports for at least two additional purposes, both of which warrant the permissible reproduction of some material excluded by the lower court's holding. First, tenants at risk of eviction or battling unsafe housing conditions need access not only to the incorporated standards relevant to the habitability of their residences, as the district court found, but also to explanatory materials that make sense of those standards, even if those materials are not themselves explicitly incorporated. For tenants representing themselves in housing court, this need is particularly acute. Second, advocates need access to standards to inform the development of campaigns for political reform, to educate and engage with community members about those campaigns, and to communicate with government officials, community boards, and other stakeholders about the use of specific standards as part of legal and regulatory policy. For these purposes, explanations of the terminology used in incorporated standards are also essential, as is access to standards that have been incorporated in the past, just as prior versions of statutes inform current versions for reviewing courts. *See Kirtsaeng v. John Wiley & Sons, Inc.*, 568 U.S. 519, 533–34 (2013) (examining provisions of the Copyright Acts of 1909 and 1947 for insight into the meaning of § 109 of the current statute). This Court should permit reproduction of

currently incorporated standards, previously incorporated standards, and explanatory materials necessary for a full comprehension of their impact on legal disputes and policy debates.

**1. Standards provide access to legal information critical for tenants seeking to assert their rights.**

To mount a defense against unjust eviction, tenants must act quickly. In South Carolina, where the NAACP launched its Housing Navigator program, tenants have just ten days from receiving the landlord's written notice of eviction to file a request for a hearing at which they may alert the court to housing code violations or uninhabitable conditions. S.C. Code Ann. §§ 27-37-40, 27-40-440(a)(1)–(2) (2022). At that hearing, tenants and the NAACP volunteers who advise them urgently need access to all relevant information, including technical standards that concern water, heating, fire safety, asbestos, and more. During these stressful and often traumatic moments, the last thing tenants need to worry about is copyright law.

A layperson seeking to educate herself about the law, and discover whether she has a legitimate claim against her landlord for a housing code violation, must be able to educate herself about the meaning of those codes, including the terminology used within them. In the area of asbestos remediation, for example, the South Carolina Department of Health and Environmental Control incorporated ASTM E2356, which sets forth the appropriate methods to test for and remove asbestos from buildings, including residential buildings. S.C. Code Ann. Regs. 61-86.1 § VI

(2022). Because that standard expresses legal duties owed by landlords and other private entities, it falls within the lower court’s ruling for permissible fair use. JA\_\_\_\_ (Dkt-239 at 6). But ASTM D7712, which explains the terminology used for sampling and analysis of asbestos, does not. Without an explanation of the terms used, access to the incorporated standard is insufficient to understand a landlord’s legal duty of compliance.

A bright-line rule that strictly limits reproduction to legally binding standards risks excluding essential information, like the definitions of technical terms and phrases. The terminology standard is equivalent to the definitions section of a statute, and is therefore an integral part of the regulation, although it does not on its own govern any conduct. The Copyright Act, for example, would be incomprehensible without access to § 101, which furnishes all of the relevant definitions. Similarly, the terminology standard does not just “help inform one’s understanding of the law”; it is requisite to that understanding. *ASTM II*, 896 F. 3d at 450.

Explanatory materials are all the more essential for tenants representing themselves in eviction hearings. In South Carolina, 99.7% of tenant defendants represent themselves in court. *Measuring South Carolina’s Justice Gap* 5, S.C. Access to Just. Comm’n (2021), <https://perma.cc/E42G-RG4E>. Such tenants are particularly vulnerable when they lack relevant information. “Without legal representation, many tenants sign agreements waiving their defenses because they

are not aware of their rights.” *Housing Right to Counsel Project*, D.C. Bar Pro Bono Center, <https://perma.cc/DQ5T-LEME>. Tenants must be able to access the same information their better-resourced landlords can. Ensuring that access is not only in the public interest, it is essential to realizing a bedrock principle of our justice system.

**2. Standards are significant tools for civic education, political participation, and reform campaigns.**

Current and past standards also play a meaningful role in how the NAACP develops political advocacy campaigns. The NAACP has recently called for a civil rights investigation into the State of Mississippi for racially discriminatory neglect and underfunding of Jackson’s water system. *See NAACP Complaint, supra*. As the NAACP noted in its complaint, this latest crisis is “a continuation of repeated incidents when the predominantly Black residents of Jackson either had no public water at all, or were provided with water from their taps that violated applicable federal drinking water standards, adversely affecting their health, safety, and well-being.” *Id.* ¶ 2. The effects of this situation take many forms, and knowledge of the history of the regulations that govern this area is central to a full understanding of its dimensions, and to the development of effective strategies to address it.

Beyond using standards in direct advocacy with government agencies, access to standards is indispensable to the work of organizing communities to advocate for their rights, their health, and the health of their children. First, the standards are an

important educational tool that empowers people to better understand how municipal, state, and federal agencies impact their daily lives. Second, understanding how standards are used enables impacted communities to participate in public debate and political processes, including agency reviews and assessments that involve the standards developing organizations. Finally, the technical information found within standards assists the NAACP's efforts to guide agencies to support the communities most in need.

For these purposes, access to both current and past standards, including relevant explanatory materials, is of considerable importance. To take one example of many, efforts to remediate lead contamination in Mississippi's drinking water have long been hamstrung by lack of information about testing protocols, low testing rates, and inconsistent reporting of results. Erica Hensley, *How Many Mississippi Kids are Poisoned by Lead?*, Miss. Today (July 24, 2020), <https://perma.cc/QX5V-FJTG>. The negative health effects of lead contamination, which are particularly severe for children, are well-documented. *See Health Effects of Lead Exposure*, Ctrs. for Disease Control & Prevention, <https://perma.cc/X7VF-4G4K>.

The Environmental Protection Agency ("EPA") has incorporated dozens of ASTM standards on the best methods for testing drinking water for pollutants, including lead. *See* 40 C.F.R. § 141.23(k)(1) (2001). The EPA also recently solicited public input in advance of issuing a revised Lead and Copper Rule. *See* Notice of

Public Meeting: Environmental Justice Considerations for the Development of the Proposed Lead and Copper Rule Improvements, 87 Fed. Reg. 61269-02 (Oct. 11, 2022). Strengthening the Rule is an important step in reducing the presence of lead in drinking water, which is primarily caused by lead in outdated plumbing equipment. *Lead and Copper Rule*, Env't Prot. Agency, <https://perma.cc/MPV4-U6Z6>. To facilitate public participation, the EPA makes the Rule's history available, including all revisions going back to its initial publication in 1991. *Id.* The reason for this is clear: an understanding of how the law has changed over time is essential for understanding the law itself and for participating in public debate about the law's future. In its prior opinion, this Court posed the question “whether PRO can fairly copy” previous versions of incorporated standards. *ASTM II*, 896 F.3d at 451. The answer to that question is yes. In order for the NAACP to conduct the advocacy activities outlined above, it must have access to the history of incorporated standards, just as it has access to the history of the EPA's regulations.

**3. The standards developing organizations' reading rooms are not designed for and are inappropriate for these transformative purposes.**

In response to the need for public access, the standards developing organizations point to their “free” reading rooms as a solution, but they are woefully inadequate for the NAACP, its volunteers, and the communities they serve. Building a campaign is a collaborative effort, which requires research, sharing of information,

and extensive discussion with stakeholders and community members. Organizers, many of whom are volunteers, must be able to access the applicable laws and regulations in myriad contexts, including meetings where internet access is often unavailable. They must also be able to forward that information by email, download and print it, copy and paste relevant sections into multiple documents, bring copies to community meetings, and distribute them widely. The reading rooms permit none of those things.

Many of the people the NAACP advocates for have limited or no home internet service, which creates additional barriers to accessing the reading rooms. Less than half of households with income under \$20,000 a year have home internet, and even after accounting for income differences, Black-led households lack home internet at significantly higher rates than White-led households. *See* S. Derek Turner, *Digital Denied: The Impact of Systemic Racial Discrimination on Home-Internet Adoption* 4 (2016), <https://perma.cc/38NS-PFD3>. As one might expect, families in financial distress, who are in legal disputes with their landlords over housing conditions, or who are under threat of eviction, often struggle to pay for home internet. This “digital divide” can make access to the reading rooms difficult or impossible for those who might need it most. In these cases, community members need to rely on NAACP volunteers or staff to conduct research on their behalf, and print or copy the relevant sections from sites such as Public Resource. The reading

rooms are unsuited to the transformative educational and civic purposes that Public Resource's publication enables.

**B. The second fair use factor also favors Public Resource, as it permits NAACP members and communities to access the language of the law as a key educational and advocacy resource.**

The second factor, which assesses the nature of the copied work, also favors fair use. For the NAACP, its volunteers, and the people they serve, the copied materials at issue in this case are factual works, which “the law generally recognizes” as favoring fair use. *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 563 (1985). More importantly, incorporated standards include language which has been specifically adopted by regulatory bodies with binding effect. As this Court observed, “[w]here the consequence of the incorporation by reference is virtually indistinguishable from a situation in which the standard had been expressly copied into law, this factor weighs heavily in favor of fair use.” *ASTM II*, 896 F. 3d at 452. When agencies and legislatures choose to incorporate specific standards, they do not incorporate the gist, the spirit, or the general ideas therein. They incorporate the precise text of the standards, and it is this precise text that everyone deserves to read.

**C. Under the third factor, complete access to standards is indispensable for complete access to justice.**

Given the research, educational, and advocacy needs of the people whom the NAACP serves, the publication of complete standards is “reasonable in relation to [its] purpose.” *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 586 (1994). The

third fair use factor, therefore, which evaluates the amount and substantiality of the original work copied, also weighs in favor of fair use. When a transformative purpose makes it “reasonably appropriate” to do so, “[c]omplete unchanged copying has repeatedly been found justified as fair use.” *Authors Guild v. Google, Inc.*, 804 F.3d 202, 221 (2d Cir. 2015); *see also Authors Guild, Inc. v. HathiTrust*, 755 F.3d 87, 98 (2d Cir. 2014); *Bill Graham Archives v. Dorling Kindersley Ltd.*, 448 F.3d 605, 613 (2d Cir. 2006); *Swatch Grp. Mgmt. Servs. v. Bloomberg L.P.*, 756 F.3d 73, 84 (2d Cir. 2014); *A.V. ex rel. Vanderhye v. iParadigms, LLC*, 562 F.3d 630, 639 (4th Cir. 2009). In this case, slicing the standards into snippets would frustrate the purpose of informing the public about the law, often falling short of this Court’s guidance to allow publication of “what is required to fairly describe the standard’s legal import.” *ASTM II*, 896 F. 3d at 452. It would also unreasonably add to the burden of the NAACP, its volunteers, and especially tenants involved in eviction proceedings, as they would have to expend extra time and energy reconstructing the relevant standards piecemeal instead of having comprehensive access to them from a single educational source such as Public Resource.

**D. Under the fourth factor, the public benefit of access to information for the NAACP, its volunteers, and the communities they serve greatly outweighs any negligible market harm, especially any alleged harm to “transformative” markets.**

In applying the fourth factor of the fair use analysis, the Court must “take into account the public benefits the copying will likely produce,” including whether they

are “comparatively important, or unimportant, when compared with dollar amounts likely lost.” *Google LLC v. Oracle America, Inc.*, 141 S. Ct. 1183, 1206 (2021). In this case, the public benefits are substantial, while the potential market harm to the standards developing organizations is negligible at best.

Access to the standards supports the NAACP’s efforts to ensure that everyone, especially the most vulnerable among us, has a safe and healthy home, clean drinking water, and the ability to participate fully in public debate and the democratic process. On the other side of the equation, after ten years of litigation there is no evidence that the predominantly low-income people the NAACP advocates for are either an existing or potential market for the standards developing organizations. In order for the analysis to favor the copyright holders, there must be “a meaningful or significant effect ‘upon the potential market for or value of the copyrighted work.’” *Author’s Guild*, 804 F.3d at 224 (quoting 17 U.S.C. § 107(4)). There is no such effect here.

Further, given the transformative use to which Public Resource puts the standards, any loss of income arising from the NAACP’s access is not legally cognizable. The Second Circuit has explained that when copyrighted works are reproduced for use within a transformative market, the copyright holder “does not suffer market harm” under the fourth fair use factor. *Bill Graham Archives*, 448 F.3d at 615. Public Resource similarly reproduces the standards for use within a transformative market, which is to say, for the noncommercial purposes of civic

education and public debate. Because Public Resource's use of the standards is transformative, any negligible market harm felt by the standards developing organizations should not carry weight in this Court's fourth factor analysis.

By making these standards available to those who would otherwise have no access to them, Public Resource puts them to a transformative use. In so doing, it does not usurp either an existing or potential cognizable market for the standards developing organizations. Enforcing copyright in these circumstances would not promote the progress of science or advance the public welfare. It would merely deprive large classes of people access to the laws that govern them.

### CONCLUSION

For the reasons described above, the NAACP urges the Court to affirm the district court's judgment.

Respectfully submitted,

*/s/ Jacob M. Karr*

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Dated: December 12, 2022

## CERTIFICATE OF COMPLIANCE

I certify that this brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7). According to the word-processing system used to prepare this brief, it contains 6,435 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(f).

I further certify that this brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type-style requirements of Fed. R. App. P. 32(a)(6) because it has been prepared in a proportionally spaced typeface, Times New Roman, in 14-point font.

Dated: December 12, 2022

*/s/ Jacob M. Karr*

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Jacob M. Karr

Counsel for *Amicus Curiae*

# **ADDENDUM**

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**§ 141.23 Inorganic chemical sampling and analytical requirements., 40 C.F.R. § 141.23**

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Code of Federal Regulations  
Title 40. Protection of Environment  
Chapter I. Environmental Protection Agency (Refs & Annos)  
Subchapter D. Water Programs  
Part 141. National Primary Drinking Water Regulations (Refs & Annos)  
Subpart C. Monitoring and Analytical Requirements

**40 C.F.R. § 141.23****§ 141.23 Inorganic chemical sampling and analytical requirements.**

Effective: June 1, 2012

[Currentness](#)

Community water systems shall conduct monitoring to determine compliance with the maximum contaminant levels specified in § 141.62 in accordance with this section. Non-transient, non-community water systems shall conduct monitoring to determine compliance with the maximum contaminant levels specified in § 141.62 in accordance with this section. Transient, non-community water systems shall conduct monitoring to determine compliance with the nitrate and nitrite maximum contaminant levels in §§ 141.11 and 141.62 (as appropriate) in accordance with this section.

(a) Monitoring shall be conducted as follows:

(1) Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point) beginning in the initial compliance period. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(2) Surface water systems shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point) beginning in the initial compliance period. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

Note: For purposes of this paragraph, surface water systems include systems with a combination of surface and ground sources.

(3) If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(4) The State may reduce the total number of samples which must be analyzed by allowing the use of compositing. Composite samples from a maximum of five samples are allowed, provided that the detection limit of the method used for analysis is less than one-fifth of the MCL. Compositing of samples must be done in the laboratory.

§ 141.23 Inorganic chemical sampling and analytical requirements., 40 C.F.R. § 141.23

(i) If the concentration in the composite sample is greater than or equal to one-fifth of the MCL of any inorganic chemical, then a follow-up sample must be taken within 14 days at each sampling point included in the composite. These samples must be analyzed for the contaminants which exceeded one-fifth of the MCL in the composite sample. Detection limits for each analytical method and MCLs for each inorganic contaminant are the following:

**Detection Limits for Inorganic Contaminants**

Contaminant	MCL (mg/l)	Methodology	Detection limit (mg/l)
Antimony.....	0.006.....	Atomic Absorption; Furnace.....	0.003
		Atomic Absorption; Platform.....	0.0008 <sup>5</sup>
		ICP-Mass Spectrometry.....	0.0004
		Hydride-Atomic Absorption.....	0.001
Arsenic.....	0.010 <sup>6</sup> .....	Atomic Absorption; Furnace.....	0.001
		Atomic Absorption; Platform— Stabilized Temperature.....	0.0005 <sup>7</sup>
		Atomic Absorption; Gaseous Hydride....	0.001
		ICP-Mass Spectrometry.....	0.0014 <sup>8</sup>
Asbestos.....	7 MFL <sup>1</sup> .....	Transmission Electron Microscopy.....	0.01 MFL
Barium.....	2.....	Atomic Absorption; furnace technique....	0.002
		Atomic Absorption; direct aspiration.....	0.1
		Inductively Coupled Plasma.....	0.002 (0.001)
Beryllium.....	0.004.....	Atomic Absorption; Furnace.....	0.0002
		Atomic Absorption; Platform.....	0.00002 <sup>5</sup>
		Inductively Coupled Plasma <sup>2</sup> .....	0.0003
		ICP-Mass Spectrometry.....	0.0003
Cadmium.....	0.005.....	Atomic Absorption; furnace technique....	0.0001
		Inductively Coupled Plasma.....	0.001
Chromium.....	0.1.....	Atomic Absorption; furnace technique....	0.001
		Inductively Coupled Plasma.....	0.007 (0.001)

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Cyanide.....0.2.....	Distillation, Spectrophotometric <sup>3</sup> .....	0.02
	Distillation, Automated, Spectrophotometric <sup>3</sup> .....	0.005
	Distillation, Amenable, Spectrophotometric <sup>4</sup> .....	0.02
	Distillation, Selective Electrode <sup>3 4</sup> .....	0.05
	UV, Distillation, Spectrophotometric <sup>9</sup> ....	0.0005
	Micro Distillation, Flow Injection, Spectrophotometric <sup>3</sup> .....	0.0006
	Ligand Exchange with Amperometry <sup>4</sup> ...	0.0005
Mercury..... 0.002.....	Manual Cold Vapor Technique.....	0.0002
	Automated Cold Vapor Technique.....	0.0002
Nickel.....	Atomic Absorption; Furnace.....	0.001
	Atomic Absorption; Platform.....	0.0006 <sup>5</sup>
	Inductively Coupled Plasma <sup>2</sup> .....	0.005
	ICP-Mass Spectrometry.....	0.0005
Nitrate..... 10 (as N).....	Manual Cadmium Reduction.....	0.01
.....	Automated Hydrazine Reduction.....	0.01
	Automated Cadmium Reduction.....	0.05
	Ion Selective Electrode.....	1
	Ion Chromatography.....	0.01
	Capillary Ion Electrophoresis.....	0.076
Nitrite..... 1 (as N).....	Spectrophotometric.....	0.01
	Automated Cadmium Reduction.....	0.05
	Manual Cadmium Reduction.....	0.01
	Ion Chromatography.....	0.004
	Capillary Ion Electrophoresis.....	0.103

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Selenium.....0.05.....Atomic Absorption; furnace.....	0.002
.....Atomic Absorption; gaseous hydride.....	0.002
Thallium..... 0.002.....Atomic Absorption; Furnace.....	0.001
.....Atomic Absorption; Platform.....	0.0007 <sup>5</sup>
.....ICP-Mass Spectrometry.....	0.0003
.....	

(ii) If the population served by the system is >3,300 persons, then compositing may only be permitted by the State at sampling points within a single system. In systems serving  $\leq 3,300$  persons, the State may permit compositing among different systems provided the 5-sample limit is maintained.

(iii) If duplicates of the original sample taken from each sampling point used in the composite sample are available, the system may use these instead of resampling. The duplicates must be analyzed and the results reported to the State within 14 days after completing analysis of the composite sample, provided the holding time of the sample is not exceeded.

(5) The frequency of monitoring for asbestos shall be in accordance with paragraph (b) of this section: the frequency of monitoring for antimony, arsenic, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium and thallium shall be in accordance with paragraph (c) of this section; the frequency of monitoring for nitrate shall be in accordance with paragraph (d) of this section; and the frequency of monitoring for nitrite shall be in accordance with paragraph (e) of this section.

(b) The frequency of monitoring conducted to determine compliance with the maximum contaminant level for asbestos specified in § 141.62(b) shall be conducted as follows:

(1) Each community and non-transient, non-community water system is required to monitor for asbestos during the first three-year compliance period of each nine-year compliance cycle beginning in the compliance period starting January 1, 1993.

(2) If the system believes it is not vulnerable to either asbestos contamination in its source water or due to corrosion of asbestos-cement pipe, or both, it may apply to the State for a waiver of the monitoring requirement in paragraph (b)(1) of this section. If the State grants the waiver, the system is not required to monitor.

(3) The State may grant a waiver based on a consideration of the following factors:

(i) Potential asbestos contamination of the water source, and

(ii) The use of asbestos-cement pipe for finished water distribution and the corrosive nature of the water.

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- (4) A waiver remains in effect until the completion of the three-year compliance period. Systems not receiving a waiver must monitor in accordance with the provisions of paragraph (b)(1) of this section.
- (5) A system vulnerable to asbestos contamination due solely to corrosion of asbestos-cement pipe shall take one sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.
- (6) A system vulnerable to asbestos contamination due solely to source water shall monitor in accordance with the provision of paragraph (a) of this section.
- (7) A system vulnerable to asbestos contamination due both to its source water supply and corrosion of asbestos-cement pipe shall take one sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.
- (8) A system which exceeds the maximum contaminant levels as determined in § 141.23(i) of this section shall monitor quarterly beginning in the next quarter after the violation occurred.
- (9) The State may decrease the quarterly monitoring requirement to the frequency specified in paragraph (b)(1) of this section provided the State has determined that the system is reliably and consistently below the maximum contaminant level. In no case can a State make this determination unless a groundwater system takes a minimum of two quarterly samples and a surface (or combined surface/ground) water system takes a minimum of four quarterly samples.
- (10) If monitoring data collected after January 1, 1990 are generally consistent with the requirements of § 141.23(b), then the State may allow systems to use that data to satisfy the monitoring requirement for the initial compliance period beginning January 1, 1993.
- (c) The frequency of monitoring conducted to determine compliance with the maximum contaminant levels in § 141.62 for antimony, arsenic, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium and thallium shall be as follows:
- (1) Groundwater systems shall take one sample at each sampling point during each compliance period. Surface water systems (or combined surface/ground) shall take one sample annually at each sampling point.
- (2) The system may apply to the State for a waiver from the monitoring frequencies specified in paragraph (c)(1) of this section. States may grant a public water system a waiver for monitoring of cyanide, provided that the State determines that the system is not vulnerable due to lack of any industrial source of cyanide.
- (3) A condition of the waiver shall require that a system shall take a minimum of one sample while the waiver is effective. The term during which the waiver is effective shall not exceed one compliance cycle (i.e., nine years).

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(4) The State may grant a waiver provided surface water systems have monitored annually for at least three years and groundwater systems have conducted a minimum of three rounds of monitoring. (At least one sample shall have been taken since January 1, 1990). Both surface and groundwater systems shall demonstrate that all previous analytical results were less than the maximum contaminant level. Systems that use a new water source are not eligible for a waiver until three rounds of monitoring from the new source have been completed.

(5) In determining the appropriate reduced monitoring frequency, the State shall consider:

(i) Reported concentrations from all previous monitoring;

(ii) The degree of variation in reported concentrations; and

(iii) Other factors which may affect contaminant concentrations such as changes in groundwater pumping rates, changes in the system's configuration, changes in the system's operating procedures, or changes in stream flows or characteristics.

(6) A decision by the State to grant a waiver shall be made in writing and shall set forth the basis for the determination. The determination may be initiated by the State or upon an application by the public water system. The public water system shall specify the basis for its request. The State shall review and, where appropriate, revise its determination of the appropriate monitoring frequency when the system submits new monitoring data or when other data relevant to the system's appropriate monitoring frequency become available.

(7) Systems which exceed the maximum contaminant levels as calculated in § 141.23(i) of this section shall monitor quarterly beginning in the next quarter after the violation occurred.

(8) The State may decrease the quarterly monitoring requirement to the frequencies specified in paragraphs (c)(1) and (c)(2) of this section provided it has determined that the system is reliably and consistently below the maximum contaminant level. In no case can a State make this determination unless a groundwater system takes a minimum of two quarterly samples and a surface water system takes a minimum of four quarterly samples.

(9) All new systems or systems that use a new source of water that begin operation after January 22, 2004 must demonstrate compliance with the MCL within a period of time specified by the State. The system must also comply with the initial sampling frequencies specified by the State to ensure a system can demonstrate compliance with the MCL. Routine and increased monitoring frequencies shall be conducted in accordance with the requirements in this section.

(d) All public water systems (community; non-transient, non-community; and transient, non-community systems) shall monitor to determine compliance with the maximum contaminant level for nitrate in § 141.62.

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- (1) Community and non-transient, non-community water systems served by groundwater systems shall monitor annually beginning January 1, 1993; systems served by surface water shall monitor quarterly beginning January 1, 1993.
  - (2) For community and non-transient, non-community water systems, the repeat monitoring frequency for groundwater systems shall be quarterly for at least one year following any one sample in which the concentration is  $\geq 50$  percent of the MCL. The State may allow a groundwater system to reduce the sampling frequency to annually after four consecutive quarterly samples are reliably and consistently less than the MCL.
  - (3) For community and non-transient, non-community water systems, the State may allow a surface water system to reduce the sampling frequency to annually if all analytical results from four consecutive quarters are  $< 50$  percent of the MCL. A surface water system shall return to quarterly monitoring if any one sample is  $\geq 50$  percent of the MCL.
  - (4) Each transient non-community water system shall monitor annually beginning January 1, 1993.
  - (5) After the initial round of quarterly sampling is completed, each community and non-transient non-community system which is monitoring annually shall take subsequent samples during the quarter(s) which previously resulted in the highest analytical result.
- (e) All public water systems (community; non-transient, non-community; and transient, non-community systems) shall monitor to determine compliance with the maximum contaminant level for nitrite in § 141.62(b).
- (1) All public water systems shall take one sample at each sampling point in the compliance period beginning January 1, 1993 and ending December 31, 1995.
  - (2) After the initial sample, systems where an analytical result for nitrite is  $< 50$  percent of the MCL shall monitor at the frequency specified by the State.
  - (3) For community, non-transient, non-community, and transient non-community water systems, the repeat monitoring frequency for any water system shall be quarterly for at least one year following any one sample in which the concentration is  $\geq 50$  percent of the MCL. The State may allow a system to reduce the sampling frequency to annually after determining the system is reliably and consistently less than the MCL.
  - (4) Systems which are monitoring annually shall take each subsequent sample during the quarter(s) which previously resulted in the highest analytical result.
- (f) Confirmation samples:

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(1) Where the results of sampling for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium or thallium indicate an exceedance of the maximum contaminant level, the State may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point.

(2) Where nitrate or nitrite sampling results indicate an exceedance of the maximum contaminant level, the system shall take a confirmation sample within 24 hours of the system's receipt of notification of the analytical results of the first sample. Systems unable to comply with the 24-hour sampling requirement must immediately notify persons served by the public water system in accordance with § 141.202 and meet other Tier 1 public notification requirements under subpart Q of this part. Systems exercising this option must take and analyze a confirmation sample within two weeks of notification of the analytical results of the first sample.

(3) If a State-required confirmation sample is taken for any contaminant, then the results of the initial and confirmation sample shall be averaged. The resulting average shall be used to determine the system's compliance in accordance with paragraph (i) of this section. States have the discretion to delete results of obvious sampling errors.

(g) The State may require more frequent monitoring than specified in paragraphs (b), (c), (d) and (e) of this section or may require confirmation samples for positive and negative results at its discretion.

(h) Systems may apply to the State to conduct more frequent monitoring than the minimum monitoring frequencies specified in this section.

(i) Compliance with §§ 141.11 or 141.62(b) (as appropriate) shall be determined based on the analytical result(s) obtained at each sampling point.

(1) For systems which are conducting monitoring at a frequency greater than annual, compliance with the maximum contaminant levels for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium or thallium is determined by a running annual average at any sampling point. If the average at any sampling point is greater than the MCL, then the system is out of compliance. If any one sample would cause the annual average to be exceeded, then the system is out of compliance immediately. Any sample below the method detection limit shall be calculated at zero for the purpose of determining the annual average. If a system fails to collect the required number of samples, compliance (average concentration) will be based on the total number of samples collected.

(2) For systems which are monitoring annually, or less frequently, the system is out of compliance with the maximum contaminant levels for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium or thallium if the level of a contaminant is greater than the MCL. If confirmation samples are required by the State, the determination of compliance will be based on the annual average of the initial MCL exceedance and any State-required confirmation samples. If a system fails to collect the required number of samples, compliance (average concentration) will be based on the total number of samples collected.

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(3) Compliance with the maximum contaminant levels for nitrate and nitrite is determined based on one sample if the levels of these contaminants are below the MCLs. If the levels of nitrate and/or nitrite exceed the MCLs in the initial sample, a confirmation sample is required in accordance with paragraph (f)(2) of this section, and compliance shall be determined based on the average of the initial and confirmation samples.

(4) Arsenic sampling results will be reported to the nearest 0.001 mg/L.

(j) Each public water system shall monitor at the time designated by the State during each compliance period.

(k) Inorganic analysis:

(1) Analysis for the following contaminants shall be conducted in accordance with the methods in the following table, or the alternative methods listed in appendix A to subpart C of this part, or their equivalent as determined by EPA. Criteria for analyzing arsenic, barium, beryllium, cadmium, calcium, chromium, copper, lead, nickel, selenium, sodium, and thallium with digestion or directly without digestion, and other analytical test procedures are contained in Technical Notes on Drinking Water Methods, EPA-600/R-94-173, October 1994. This document is available from the National Service Center for Environmental Publications (NSCEP), P.O. Box 42419, Cincinnati, OH 45242-0419 or <http://www.epa.gov/nscep/>.

Contaminant	Methodology <sup>13</sup>	EPA	ASTM <sup>3</sup>	SM <sup>4</sup> (18th, 19th ed.)	SM <sup>4</sup> (20th ed.)	SM Online <sup>22</sup>	Other
1. Alkalinity.....	Titrimetric .....		D1067-92, 02 B	2320 B	2320 B	2320 B-97	
	Electrometric titration .....					I-1030-85 <sup>5</sup>	
2. Antimony.....	Inductively Coupled Plasma (ICP) —Mass Spectrometry	200.8 <sup>2</sup>					
	Hydride- Atomic Absorption .....		D3697-92, 02				
	Atomic Absorption; Platform	200.9 <sup>2</sup>					

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	Atomic Absorption; Furnace	.....	3113 B	.....	3113 B-99
3. Arsenic <sup>14</sup> .....	ICP- Mass Spectrometry	2 200.8			
.....	Atomic Absorption; Platform	2 200.9			
.....	Atomic Absorption; Furnace		D2972-97, 03 C	3113 B	3113 B-99
.....	Hydride Atomic Absorption		D1972-97, 03 B	3114 B	3114 B-97
4. Asbestos.....	Transmission Electron Microscopy	100.1 <sup>9</sup>			
	Transmission Electron Microscopy	100.2 <sup>10</sup>			
5. Barium.....	Inductively Coupled Plasma	200.7 <sup>2</sup> .....	3120 B	3120 B	3120 B-99
	ICP- Mass Spectrometry	200.8 <sup>2</sup>			
	Atomic Absorption; Direct	.....	3111D	.....	3111 D-99
	Atomic Absorption; Furnace	.....	3113 B	.....	3113 B-99
6. Beryllium.....	Inductively Coupled Plasma	200.7 <sup>2</sup> .....	3120 B	3120 B	3120 B-99
	ICP- Mass Spectrometry	200.8 <sup>2</sup>			
	Atomic Absorption; Platform	200.9 <sup>2</sup>			

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	Atomic Absorption; Furnace	.....	D3645-97, 03 B	3113 B	.....	3113 B-99
7. Cadmium.....	Inductively Coupled Plasma	200.7 <sup>2</sup>				
	ICP- Mass Spectrometry	200.8 <sup>2</sup>				
	Atomic Absorption; Platform	200.9 <sup>2</sup>				
	Atomic Absorption; Furnace	.....		3113 B	.....	3113 B-99
8. Calcium.....	EDTA titrimetric	.....	D511-93, 03 A	3500- Ca D	3500- Ca B	3500- Ca B-97
	Atomic Absorption; Direct Aspiration	.....	D511-93, 03 B	3111 B	.....	3111 B-99
	Inductively Coupled Plasma	200.7 <sup>2</sup>	.....	3120 B	3120 B	3120 B-99
	Ion Chromatography	.....	D6919-03			
9. Chromium.....	Inductively Coupled Plasma	200.7 <sup>2</sup>	.....	3120 B	3120 B	3120 B-99
	ICP- Mass Spectrometry	200.8 <sup>2</sup>				
	Atomic Absorption; Platform	200.9 <sup>2</sup>				
	Atomic Absorption; Furnace	.....		3113 B	.....	3113 B-99

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10. Copper.....	Atomic Absorption; Furnace	.....	D1688-95, 02 C	3113 B	.....	3113 B-99	
.....	Atomic Absorption; Direct Aspiration	.....	D1688-95, 02 A	3111 B	.....	3111 B-99	
.....	Inductively Coupled Plasma	200.7 <sup>2</sup>	.....	3120 B	3120 B	3120 B-99	
.....	ICP- Mass spectrometry	200.8 <sup>2</sup>					
.....	Atomic Absorption; Platform	200.9 <sup>2</sup>					
11. Conductivity.....	Conductance	.....	D1125-95 (Reapproved 1999) A	2510 B	2510 B	2510 B-97	
12. Cyanide.....	Manual Distillation followed by	.....	D2036-98 A	4500- CN <sup>-</sup> C	4500- CN <sup>-</sup> C		
.....	Spectrophotometric, Amenable	.....	D2036-98 B	4500- CN <sup>-</sup> G	4500- CN <sup>-</sup> G	4500- CN <sup>-</sup> G-99	
.....	Spectro- photometric Manual	.....	D2036-98 A	4500- CN <sup>-</sup> E	4500- CN <sup>-</sup> E	4500- CN <sup>-</sup> E-99	I-3300-85 <sup>5</sup>
.....	Spectro- photometric Semi- automated	335.4 <sup>6</sup>					
.....	Selective Electrode	.....		4500- CN <sup>-</sup> F	4500- CN <sup>-</sup> F	4500- CN <sup>-</sup> F-99	
.....	UV, Distillation, Spectrophotometric	.....					Kelada-01 <sup>17</sup>
.....	Micro Distillation, Flow	.....					QuikChem 10-204-00-1- X <sup>18</sup>

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	Injection, Spectrophotometric						
	Ligand Exchange and Amperometry <sup>21</sup>		D6888-04				OIA-1677, DW <sup>20</sup>
13. Fluoride.....	Ion Chromatography	300.0 <sup>6</sup> , 300.1 <sup>19</sup>	D4327-97, 03	4110 B	4110 B	4110 B-00	
	Manual Distill.; Color. SPADNS			4500- F <sup>-</sup> B, D	4500- F <sup>-</sup> B, D	4500- F <sup>-</sup> B, D-97	
	Manual Electrode		D1179-93, 99 B	4500- F <sup>-</sup> C	4500- F <sup>-</sup> C	4500- F <sup>-</sup> C-97	
	Automated Electrode						380-75WE <sup>11</sup>
	Automated Alizarin			4500- F <sup>-</sup> E	4500- F <sup>-</sup> E	4500- F <sup>-</sup> E-97	129-71W <sup>11</sup>
	Capillary Ion Electrophoresis						D6508, Rev. 2 <sup>23</sup>
14. Lead.....	Atomic Absorption; Furnace		D3559-96, 03 D	3113 B		3113 B-99	
	ICP- Mass spectrometry	200.8 <sup>2</sup>					
	Atomic Absorption; Platform	200.9 <sup>2</sup>					
	Differential Pulse Anodic Stripping Voltametry						Method 1001 <sup>16</sup>
15. Magnesium.....	Atomic Absorption		D511-93, 03 B	3111 B		3111 B-99	

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.....	ICP	200.7 <sup>2</sup>	.....	3120 B	3120 B	3120 B-99	
.....	Complexation Titrimetric Methods		D511-93, 03 A	3500- Mg E	3500- Mg B	3500- Mg B-97	
.....	Ion Chromatography		D6919-03				
16. Mercury.....	Manual, Cold Vapor	245.1 <sup>2</sup>	D3223-97, 02	3112 B	.....	3112 B-99	
.....	Automated, Cold Vapor	245.2 <sup>1</sup>					
.....	ICP- Mass Spectrometry	200.8 <sup>2</sup>					
17. Nickel.....	Inductively Coupled Plasma	200.7 <sup>2</sup>	.....	3120 B	3120 B	3120 B-99	
.....	ICP- Mass Spectrometry	200.8 <sup>2</sup>					
.....	Atomic Absorption; Platform	200.9 <sup>2</sup>					
.....	Atomic Absorption; Direct			3111 B	.....	3111 B-99	
.....	Atomic Absorption; Furnace			3113 B	.....	3113 B-99	
18. Nitrate.....	Ion Chromatography	300.0 <sup>6</sup> , 300.1 <sup>19</sup>	D4327-97, 03	4110 B	4110 B	4110 B-00	B-1011 <sup>8</sup>
.....	Automated Cadmium Reduction	353.2 <sup>6</sup>	D3867-90 A	4500- NO <sub>3</sub> F	4500- NO <sub>3</sub> F	4500- NO <sub>3</sub> F-00	
.....	Ion Selective Electrode		.....	4500- NO <sub>3</sub> D	4500- NO <sub>3</sub> D	4500- NO <sub>3</sub> D-00	601 <sup>7</sup>

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.....	Manual Cadmium Reduction		D3867-90 B	4500- NO <sub>3</sub> E	4500- NO <sub>3</sub> E	4500- NO <sub>3</sub> E-00	
.....	Capillary Ion Electrophoresis		D6508-00.				
19. Nitrite.....	Ion Chromatography	300.0 <sup>6</sup> , 300.1 <sup>19</sup>	D4327-97, 03	4110 B	4110 B	4110 B-00	B-1011 <sup>8</sup>
.....	Automated Cadmium Reduction	353.2 <sup>6</sup>	D3867-90 A	4500- NO <sub>3</sub> F	4500- NO <sub>3</sub> F	4500- NO <sub>3</sub> F-00	
.....	Manual Cadmium Reduction		D3867-90 B	4500- NO <sub>3</sub> E	4500- NO <sub>3</sub> E	4500- NO <sub>3</sub> E-00	
.....	Spectrophotometric		.....	4500- NO <sub>2</sub> B	4500- NO <sub>2</sub> B	4500- NO <sub>2</sub> B-00	
.....	Capillary Ion Electrophoresis		D6508-00				
20. Ortho-phosphate....	Colorimetric, Automated, Ascorbic Acid	365.1 <sup>6</sup>		4500- P F	4500- P F		
.....	Colorimetric, ascorbic acid, single reagent		D515-88 A	4500- P E	4500- P E		
.....	Colorimetric Phosphomolybdate; Automated- segmented- flow; Automated Discrete		.....	.....	.....		I-1601-85 <sup>5</sup>
.....							I-2601-90 <sup>5</sup>
.....							I-2598-85 <sup>5</sup>
.....	Ion Chromatography	300.0 <sup>6</sup> , 300.1 <sup>19</sup>	D4327-97, 03	4110 B	4110 B	4110 B-00	

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.....	Capillary Ion Electrophoresis		D6508-00			
21. pH.....	Electrometric	150.1, 150.2 <sup>1</sup>	D1293-95, 99	4500- H <sup>+</sup> B	4500- H <sup>+</sup> B	4500- H <sup>+</sup> B-00
22. Selenium.....	Hydride- Atomic Absorption	.....	D3859-98, 03 A	3114 B	.....	3114 B-97
.....	ICP- Mass Spectrometry	200.8 <sup>2</sup>				
.....	Atomic Absorption; Platform	200.9 <sup>2</sup>				
.....	Atomic Absorption; Furnace	.....	D3859-98, 03 B	3113 B	.....	3113 B-99
23. Silica.....	Colorimetric, Molybdate Blue	.....				I-1700-85 <sup>5</sup>
.....	Automated- segmented Flow	.....				I-2700-85 <sup>5</sup>
.....	Colorimetric	.....	D859-94, 00			
.....	Molybdosilicate.....			4500- Si D	4500- SiO <sub>2</sub> C	4500- SiO <sub>2</sub> C-97
.....	Heteropoly blue	.....		4500- Si E	4500- SiO <sub>2</sub> D	4500- SiO <sub>2</sub> D-97
.....	Automated for Molybdate- reactive Silica	.....		4500- Si F	4500- SiO <sub>2</sub> E	4500- SiO <sub>2</sub> E-97
.....	Inductively Coupled Plasma	200.7 <sup>2</sup>	.....	3120 B	3120 B	3120 B-99

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24. Sodium.....	Inductively Coupled Plasma	200.7 <sup>2</sup>			
.....	Atomic Absorption; Direct Aspiration		3111 B		3111 B-99
.....	Ion Chromatography		D6919-03		
25. Temperature.....	Thermometric		2550	2550	2550-00
26. Thallium.....	ICP- Mass Spectrometry	200.8 <sup>2</sup>			
.....	Atomic Absorption; Platform	200.9 <sup>2</sup>			

(2) Sample collection for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, nitrate, nitrite, selenium, and thallium under this section shall be conducted using the sample preservation, container, and maximum holding time procedures specified in the table below:

Contaminant	Preservative <sup>1</sup>	Container <sup>2</sup>	Time <sup>3</sup>
Antimony.....	HNO <sup>3</sup> .....	P or G.....	6 months
Arsenic.....	Conc HNO <sub>3</sub> to pH <2.....	P or G.....	6 months
Asbestos.....	4°C.....	P or G.....	48 hours <sup>4</sup>
Barium.....	HNO <sup>3</sup> .....	P or G.....	6 months
Beryllium.....	HNO <sup>3</sup> .....	P or G.....	6 months
Cadmium.....	HNO <sup>3</sup> .....	P or G.....	6 months
Chromium.....	HNO <sup>3</sup> .....	P or G.....	6 months
Cyanide.....	4°C, NaOH.....	P or G.....	14 days

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Fluoride.....	None.....	P or G.....	1 month
Mercury.....	HNO <sup>3</sup> .....	P or G.....	28 days
Nickel.....	HNO <sup>3</sup> .....	P or G.....	6 months
Nitrate.....	4°C.....	P or G.....	48 hours <sup>5</sup>
Nitrate-Nitrite <sup>6</sup> .....	H <sup>2</sup> SO <sup>4</sup> .....	P or G.....	28 days
Nitrite.....	4°C.....	P or G.....	48 hours
Selenium.....	HNO <sup>3</sup> .....	P or G.....	6 months
Thallium.....	HNO <sup>3</sup> .....	P or G.....	6 months

(3) Analysis under this section shall only be conducted by laboratories that have been certified by EPA or the State. Laboratories may conduct sample analysis under provisional certification until January 1, 1996. To receive certification to conduct analyses for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, nitrate, nitrite and selenium and thallium, the laboratory must:

(i) Analyze Performance Evaluation (PE) samples provided by EPA, the State or by a third party (with the approval of the State or EPA) at least once a year.

(ii) For each contaminant that has been included in the PE sample and for each method for which the laboratory desires certification achieve quantitative results on the analyses that are within the following acceptance limits:

Contaminant	Acceptance limit
Antimony.....	±30 at ≥0.006 mg/l
Arsenic.....	±30 at ≥0.003 mg/L
Asbestos.....	2 standard deviations based on study statistics.
Barium.....	±15% at ≥0.15 mg/l
Beryllium.....	±15% at ≥0.001 mg/l
Cadmium.....	±20% at ≥0.002 mg/l

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Chromium.....	±15% at ≥0.01 mg/l
Cyanide.....	±25% at ≥0.1 mg/l
Fluoride.....	±10% at ≥1 to 10 mg/l
Mercury.....	±30% at ≥0.0005 mg/l
Nickel.....	±15% at ≥0.01 mg/l
Nitrate.....	±10% at ≥0.4 mg/l
Nitrite.....	±15% at ≥0.4 mg/l
Selenium.....	±20% at ≥0.01 mg/l
Thallium.....	±30% at ≥0.002 mg/l

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(l) Analyses for the purpose of determining compliance with § 141.11 shall be conducted using the requirements specified in paragraphs (l) through (q) of this section.

(1) Analyses for all community water systems utilizing surface water sources shall be completed by June 24, 1978. These analyses shall be repeated at yearly intervals.

(2) Analyses for all community water systems utilizing only ground water sources shall be completed by June 24, 1979. These analyses shall be repeated at three-year intervals.

(3) For non-community water systems, whether supplied by surface or ground sources, analyses for nitrate shall be completed by December 24, 1980. These analyses shall be repeated at intervals determined by the State.

(4) The State has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by their sanctioned representatives and agencies.

(m) If the result of an analysis made under paragraph (l) of this section indicates that the level of any contaminant listed in § 141.11 exceeds the maximum contaminant level, the supplier of the water shall report to the State within 7 days and initiate three additional analyses at the same sampling point within one month.

(n) When the average of four analyses made pursuant to paragraph (m) of this section, rounded to the same number of significant figures as the maximum contaminant level for the substance in question, exceeds the maximum contaminant level, the supplier of water shall notify the State pursuant to § 141.31 and give notice to the public pursuant to subpart Q. Monitoring after public notification shall be at a frequency designated by the State and shall continue until the maximum contaminant level has not been exceeded in two successive samples or until a monitoring schedule as a condition to a variance, exemption or enforcement action shall become effective.

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(o) The provisions of paragraphs (m) and (n) of this section notwithstanding, compliance with the maximum contaminant level for nitrate shall be determined on the basis of the mean of two analyses. When a level exceeding the maximum contaminant level for nitrate is found, a second analysis shall be initiated within 24 hours, and if the mean of the two analyses exceeds the maximum contaminant level, the supplier of water shall report his findings to the State pursuant to § 141.31 and shall notify the public pursuant to subpart Q.

(p) For the initial analyses required by paragraph (1)(1), (2) or (3) of this section, data for surface waters acquired within one year prior to the effective date and data for ground waters acquired within 3 years prior to the effective date of this part may be substituted at the discretion of the State.

(q) [Reserved]

**Credits**

[40 FR 59570, Dec. 24, 1975, as amended at 45 FR 57344, Aug. 27, 1980; 47 FR 10998, March 12, 1982; 51 FR 11410, April 2, 1986; 51 FR 24329, July 3, 1986; 53 FR 5146, Feb. 19, 1988; 56 FR 3579, Jan. 30, 1991; 56 FR 30274, July 1, 1991; 57 FR 31838, July 17, 1992; 59 FR 34322, July 1, 1994; 59 FR 62466, Dec. 5, 1994; 60 FR 33932, 34085, June 29, 1995; 63 FR 47107, Sept. 3, 1998; 63 FR 72200, Dec. 31, 1998; 64 FR 67461, 67464, Dec. 1, 1999; 65 FR 26022, May 4, 2000; 66 FR 3493, Jan. 16, 2001; 66 FR 7061, Jan. 22, 2001; 66 FR 16134, March 23, 2001; 66 FR 26795, May 15, 2001; 66 FR 28350, May 22, 2001; 67 FR 65246, Oct. 23, 2002; 67 FR 65897, Oct. 29, 2002; 67 FR 68911, Nov. 13, 2002; 68 FR 14506, March 25, 2003; 72 FR 11241, March 12, 2007; 74 FR 30957, June 29, 2009; 77 FR 26095, May 2, 2012]

SOURCE: 40 FR 59570, Dec. 24, 1975; 50 FR 46900, Nov. 13, 1985; 52 FR 20674, June 2, 1987; 52 FR 41546, Oct. 28, 1987; 53 FR 37410, Sept. 26, 1988; 54 FR 27526, June 29, 1989; 63 FR 43846, Aug. 14, 1998; 63 FR 44526, Aug. 19, 1998, unless otherwise noted.

AUTHORITY: 42 U.S.C. 300f, 300g-1, 300g-2, 300g-3, 300g-4, 300g-5, 300g-6, 300j-4, 300j-9, and 300j-11.

**Notes of Decisions (9)**

Current through Dec. 8, 2022, 87 FR 75386. Some sections may be more current. See credits for details.

**Footnotes**

- 1 MFL = million fibers per liter >10 µm.
- 2 Using a 2X preconcentration step as noted in Method 200.7. Lower MDLs may be achieved when using a 4X preconcentration.
- 3 Screening method for total cyanides.

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- 4 Measures “free” cyanides when distillation, digestion, or ligand exchange is omitted.
- 5 Lower MDLs are reported using stabilized temperature graphite furnace atomic absorption.
- 6 The value for arsenic is effective January 23, 2006. Until then, the MCL is 0.05 mg/L.
- 7 The MDL reported for EPA method 200.9 (Atomic Absorption; Platform—Stabilized Temperature) was determined using a 2x concentration step during sample digestion. The MDL determined for samples analyzed using direct analyses (i.e., no sample digestion) will be higher. Using multiple depositions, EPA 200.9 is capable of obtaining MDL of 0.0001 mg/L.
- 8 Using selective ion monitoring, EPA Method 200.8 (ICP-MS) is capable of obtaining a MDL of 0.0001 mg/L.
- 9 Measures total cyanides when UV-digester is used, and “free” cyanides when UV-digester is bypassed.

The procedures shall be done in accordance with the documents listed below. The incorporation by reference of the following documents listed in footnotes 1-11, 16-20, and 22-23 was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the documents may be obtained from the sources listed below. Information regarding obtaining these documents can be obtained from the Safe Drinking Water Hotline at 800-426-4791. Documents may be inspected at EPA's Drinking Water Docket, EPA West, 1301 Constitution Avenue, NW., Room 3334, Washington, DC 20460 (Telephone: 202-566-2426); 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 “Methods for Chemical Analysis of Water and Wastes,” EPA/600/4-79/020, March 1983. Available at NTIS, PB84-128677.
- 2 “Methods for the Determination of Metals in Environmental Samples—Supplement I,” EPA/600/R-94/111, May 1994. Available at NTIS, PB95-125472.
- 3 Annual Book of ASTM Standards, ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428, <http://www.astm.org>; Annual Book of ASTM Standards 1994, Vols. 11.01 and 11.02; Annual Book of ASTM Standards 1996, Vols. 11.01 and 11.02; Annual Book of ASTM Standards 1999, Vols. 11.01 and 11.02; Annual Book of ASTM Standards 2003, Vols. 11.01 and 11.02.
- 4 Standard Methods for the Examination of Water and Wastewater, American Public Health Association, 800 I Street NW., Washington, DC 20001-3710; Standard Methods for the Examination of Water and Wastewater, 18th edition (1992); Standard Methods for the Examination of Water and Wastewater, 19th edition (1995); Standard Methods for the Examination of Water and Wastewater, 20th edition (1998). The following methods from this edition cannot be used: 3111 B, 3111 D, 3113 B, and 3114 B.
- 5 U.S. Geological Survey, Federal Center, Box 25286, Denver, CO 80225-0425; Methods for Analysis by the U.S. Geological Survey National Water Quality Laboratory—Determination of Inorganic and Organic Constituents in Water and Fluvial Sediment, Open File Report 93-125, 1993; Techniques of Water Resources Investigation of the U.S. Geological Survey, Book 5, Chapter A-1, 3rd edition, 1989.
- 6 “Methods for the Determination of Inorganic Substances in Environmental Samples,” EPA/600/R-93/100, August 1993. Available as Technical Report PB94-120821 at National Technical Information Service (NTIS), 5301 Shawnee Road, Alexandria, VA 22312. <http://www.ntis.gov>.

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**§ 141.23 Inorganic chemical sampling and analytical requirements., 40 C.F.R. § 141.23**

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- 7 The procedure shall be done in accordance with the Technical Bulletin 601 “Standard Method of Test for Nitrate in Drinking Water,” July 1994, PN 221890-001, Analytical Technology, Inc. Copies may be obtained from ATI Orion, 529 Main Street, Boston, MA 02129.
- 8 Method B-1011. “Waters Test Method for Determination of Nitrite/Nitrate in Water Using Single Column Ion Chromatography,” August, 1987. Copies may be obtained from Waters Corporation, Technical Services Division, 34 Maple Street, Milford, MA 01757, Telephone: 508/482-2963, Fax: 508/482-4056.
- 9 Method 100.1, “Analytical Method For Determination of Asbestos Fibers in Water,” EPA/600/4-83/043, EPA, September 1983. Available at NTIS, PB83-260471.
- 10 Method 100.2, “Determination of Asbestos Structure Over 10- $\mu$ m In Length In Drinking Water,” EPA/600/R-94/134, June 1994. Available at NTIS, PB94-201902.
- 11 Industrial Method No. 129-71W, “Fluoride in Water and Wastewater,” December 1972, and Method No. 380-75WE, “Fluoride in Water and Wastewater,” February 1976, Technicon Industrial Systems. Copies may be obtained from Bran & Luebbe, 1025 Busch Parkway, Buffalo Grove, IL 60089.
- 12 Unfiltered, no digestion or hydrolysis.
- 13 Because MDLs reported in EPA Methods 200.7 and 200.9 were determined using a 2x preconcentration step during sample digestion, MDLs determined when samples are analyzed by direct analysis (i.e., no sample digestion) will be higher. For direct analysis of cadmium and arsenic by Method 200.7, and arsenic by Method 3120 B, sample preconcentration using pneumatic nebulization may be required to achieve lower detection limits. Preconcentration may also be required for direct analysis of antimony, lead, and thallium by Method 200.9; antimony and lead by Method 3113 B; and lead by Method D3559-90D, unless multiple in-furnace depositions are made.
- 14 If ultrasonic nebulization is used in the determination of arsenic by Method 200.8, the arsenic must be in the pentavalent state to provide uniform signal response. For direct analysis of arsenic with Method 200.8 using ultrasonic nebulization, samples and standards must contain 1 mg/L of sodium hypochlorite.
- 15 [Reserved]
- 16 The description for Method Number 1001 for lead is available from Palintest, LTD, 21 Kenton Lands Road, P.O. Box 18395, Erlanger, KY 41018. Or from the Hach Company, P.O. Box 389, Loveland, CO 80539.
- 17 The description for the Kelada-01 Method, “Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, And Thiocyanate,” Revision 1.2, August 2001, EPA # 821-B-01-009 for cyanide is available from the National Technical Information Service (NTIS), PB 2001-108275, 5285 Port Royal Road, Springfield, VA 22161. The toll free telephone number is 800-553-6847. Note: A 450-W UV lamp may be used in this method instead of the 550-W lamp specified if it provides performance within the quality control (QC) acceptance criteria of the method in a given instrument. Similarly, modified flow cell configurations and flow conditions may be used in the method, provided that the QC acceptance criteria are met.
- 18 The description for the QuikChem Method 10-204-00-1-X, “Digestion and distillation of total cyanide in drinking and wastewaters using MICRO DIST and determination of cyanide by flow injection analysis,” Revision 2.1, November 30, 2000, for cyanide is available from Lachat Instruments, 6645 W. Mill Rd., Milwaukee, WI 53218. Telephone: 414-358-4200.

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**§ 141.23 Inorganic chemical sampling and analytical requirements., 40 C.F.R. § 141.23**

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- 19 “Methods for the Determination of Organic and Inorganic Compounds in Drinking Water,” Vol. 1, EPA 815-R-00-014, August 2000. Available as Technical Report PB2000-106981 at National Technical Information Service (NTIS), 5301 Shawnee Road, Alexandria, VA 22312. <http://www.ntis.gov>.
- 20 Method OIA-1677, DW “Available Cyanide by Flow Injection, Ligand Exchange, and Amperometry,” January 2004. EPA-821-R-04-001, Available from ALPKEM, A Division of OI Analytical, P.O. Box 9010, College Station, TX 77842-9010.
- 21 Sulfide levels below those detected using lead acetate paper may produce positive method interferences. Test samples using a more sensitive sulfide method to determine if a sulfide interference is present, and treat samples accordingly.
- 22 Standard Methods Online, American Public Health Association, 800 I Street NW., Washington, DC 20001, available at <http://www.standardmethods.org>. The year in which each method was approved by the Standard Methods Committee is designated by the last two digits in the method number. The methods listed are the only online versions that may be used.
- 1 For cyanide determinations samples must be adjusted with sodium hydroxide to pH 12 at the time of collection. When chilling is indicated the sample must be shipped and stored at 4°C or less. Acidification of nitrate or metals samples may be with a concentrated acid or a dilute (50% by volume) solution of the applicable concentrated acid. Acidification of samples for metals analysis is encouraged and allowed at the laboratory rather than at the time of sampling provided the shipping time and other instructions in Section 8.3 of EPA Methods 200.7 or 200.8 or 200.9 are followed.
- 2 P=plastic, hard or soft; G=glass, hard or soft.
- 3 In all cases samples should be analyzed as soon after collection as possible. Follow additional (if any) information on preservation, containers or holding times that is specified in method.
- 4 Instructions for containers, preservation procedures and holding times as specified in Method 100.2 must be adhered to for all compliance analyses including those conducted with Method 100.1.
- 5 If the sample is chlorinated, the holding time for an unacidified sample kept at 4°C is extended to 14 days.
- 6 Nitrate–Nitrite refers to a measurement of total nitrate.

## Section P2906 Materials, Joints and Connections

### P2906.1 Soil and Groundwater

The installation of water service pipe, water distribution pipe, fittings, valves, appurtenances and gaskets shall be prohibited in soil and groundwater that is contaminated with solvents, fuels, organic compounds or other detrimental materials that cause permeation, corrosion, degradation or structural failure of the water service or water distribution piping material.

#### P2906.1.1 Investigation Required

Where detrimental conditions are suspected by or brought to the attention of the *building official*, a chemical analysis of the soil and groundwater conditions shall be required to ascertain the acceptability of the water service material for the specific installation.

#### P2906.1.2 Detrimental Condition

Where a detrimental condition exists, *approved* alternate materials or alternate routing shall be required.

### P2906.2 Lead Content

The lead content in pipe and fittings used in the water supply system shall be not greater than 8 percent.

#### P2906.2.1 Lead Content of Drinking Water Pipe and Fittings

Pipe, pipe fittings, joints, valves, faucets and fixture fittings utilized to supply water for drinking or cooking purposes shall comply with NSF 372 and shall have a weighted average lead content of 0.25-percent lead or less.

### P2906.3 Polyethylene Plastic Piping Installation

Polyethylene pipe shall be cut square using a cutter designed for plastic pipe. Except where joined by heat fusion, pipe ends shall be chamfered to remove sharp edges. Pipe that has been kinked shall not be installed. For bends, the installed radius of pipe curvature shall be greater than 30 pipe diameters or the coil radius where bending with the coil. Coiled pipe shall not be bent beyond straight. Bends within 10 pipe diameters of any fitting or valve shall be prohibited. Joints between polyethylene plastic pipe and fittings shall comply with Section P2906.3.1 or P2906.3.2.

#### P2906.3.1 Heat-Fusion Joints

Joint surfaces shall be clean and free from moisture. Joint surfaces shall be heated to melting temperature and joined. The joint shall be undisturbed until cool. Joints shall be made in accordance with ASTM D2657.

#### P2906.3.2 Mechanical Joints

Mechanical joints shall be installed in accordance with the manufacturer's instructions.

### P2906.4 Water Service Pipe

Water service pipe shall conform to NSF 61 and shall conform to one of the standards indicated in Table P2906.4. Water service pipe or tubing, installed underground and outside of the structure, shall have a working pressure rating of not less than 160 pounds per square inch at 73°F (1103 kPa at 23°C). Where the water pressure exceeds 160 pounds per square inch (1103 kPa), piping material shall have a rated working pressure equal to or greater than the highest available pressure. Water service piping materials not third-party certified for water distribution shall terminate at or before the full open valve located at the entrance to the structure. Ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104/A21.4.

**TABLE P2906.4**  
**WATER SERVICE PIPE**

<b>MATERIAL</b>	<b>STANDARD</b>
Acrylonitrile butadiene styrene (ABS) plastic pipe	ASTM D1527; ASTM D2282
Chlorinated polyvinyl chloride (CPVC) plastic pipe	ASTM D2846; ASTM F441; ASTM F442/F442M; CSA B137.6
Chlorinated polyvinyl chloride/aluminum/chlorinated polyvinyl chloride (CPVC/AL/CPVC) plastic pipe	ASTM F2855
Copper or copper-alloy pipe	ASTM B42; ASTM B43; ASTM B302
Copper or copper-alloy tubing (Type K, WK, L, WL, M or WM)	ASTM B75/B75M; ASTM B88; ASTM B251; ASTM B447
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe	ASTM F1281; ASTM F2262; CSA B137.10
Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE) pipe	ASTM F1986
Cross-linked polyethylene (PEX) plastic tubing	ASTM F876; AWWA C904; CSA B137.5
Ductile iron water pipe	AWWA C115/A21.15; AWWA C151/A21.51
Galvanized steel pipe	ASTM A53
Polyethylene/aluminum/polyethylene (PE-AL-PE) pipe	ASTM F1282; CSA B137.9
Polyethylene (PE) plastic pipe	ASTM D2104; ASTM D2239; AWWA C901; CSA B137.1
Polyethylene (PE) plastic tubing	ASTM D2737; AWWA C901; CSA B137.1
Polyethylene of raised temperature (PE-RT) plastic tubing	ASTM F2769; CSA B137.18
Polypropylene (PP) plastic tubing	ASTM F2389; CSA B137.11
Polyvinyl chloride (PVC) plastic pipe	ASTM D1785; ASTM D2241; ASTM D2672; CSA B137.3
Stainless steel (Type 304/304L) pipe	ASTM A312; ASTM A778
Stainless steel (Type 316/316L) pipe	ASTM A312; ASTM A778

#### **P2906.4.1 Separation of Water Service and Building Sewer**

Trenching, pipe installation and backfilling shall be in accordance with Section P2604. Where water service piping is located in the same trench with the building sewer, such sewer shall be constructed of materials listed in Table P3002.1(2). Where the building sewer piping is not constructed of materials indicated in Table P3002.1(2), the water service pipe and the building sewer shall be horizontally separated by not less than 5 feet (1524 mm) of undisturbed or compacted earth. The required separation distance shall not apply where a water service pipe crosses a sewer pipe, provided that the water service is sleeved to a point not less than 5 feet (1524 mm) horizontally from the sewer pipe centerline on both sides of such crossing. The sleeve shall be of pipe materials indicated in Table P2906.4, P3002.1(2) or P3002.2. The required separation distance shall not apply where the bottom of the water service pipe that is located within 5 feet (1524 mm) of the sewer is not less than 12 inches (305 mm) above the highest point of the top of the building sewer.

#### **P2906.5 Water Distribution Pipe**

Water distribution piping within *dwelling units* shall conform to NSF 61 and shall conform to one of the standards indicated in Table P2906.5. Water distribution pipe and tubing shall have a pressure rating of not less than 100 psi at 180°F (689 kPa at 82°C).

**TABLE P2906.5**  
**WATER DISTRIBUTION PIPE**

<b>MATERIAL</b>	<b>STANDARD</b>
Chlorinated polyvinyl chloride (CPVC) plastic pipe and tubing	ASTM D2846; ASTM F441; ASTM F442/F442M; CSAB137.6
Chlorinated polyvinyl chloride/aluminum/chlorinated polyvinyl chloride (CPVC/AL/CPVC) plastic pipe	ASTM F2855
Copper or copper-alloy pipe	ASTM B42; ASTM B43; ASTM B302
Copper or copper-alloy tubing (Type K, WK, L, WL, M or WM)	ASTM B75/B75M; ASTM B88; ASTM B251; ASTM B447
Cross-linked polyethylene (PEX) plastic tubing	ASTM F876; CSAB137.5
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe	ASTM F1281; ASTM F2262; CSAB137.10
Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE) pipe	ASTM F1986
Galvanized steel pipe	ASTM A53
Polyethylene/aluminum/polyethylene (PE-AL-PE) composite pipe	ASTM F1282
Polyethylene of raised temperature (PE-RT) plastic tubing	ASTM F2769; CSAB137.18
Polypropylene (PP) plastic pipe or tubing	ASTM F2389; CSAB137.11
Stainless steel (Type 304/304L) pipe	ASTM A312; ASTM A778

#### **P2906.6 Fittings**

Pipe fittings shall be *approved* for installation with the piping material installed and shall comply with the applicable standards indicated in Table P2906.6. Pipe fittings used in water supply systems shall comply with NSF 61.

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**§ 27-37-40. Tenant ejected on failure to show cause., SC ST § 27-37-40**

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Code of Laws of South Carolina 1976 Annotated  
Title 27. Property and Conveyances (Refs & Annos)  
Chapter 37. Ejectment of Tenants (Refs & Annos)

Code 1976 § 27-37-40

§ 27-37-40. Tenant ejected on failure to show cause.

**Currentness**

If the tenant fails to appear and show cause within the aforesaid ten days then the magistrate shall issue a warrant of ejectment and the tenant shall be ejected by his regular or special constable or by the sheriff of the county.

**Credits**

HISTORY: 1962 Code § 41-104; 1952 Code § 41-104; 1946 (44) 2584; 1950 (46) 2305.

**Notes of Decisions (4)**

Code 1976 § 27-37-40, SC ST § 27-37-40

Current through 2022 Act No. 268, subject to final approval by the Legislative Council, technical revisions by the Code Commissioner, and publication in the Official Code of Laws.

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**§ 27-40-440. Landlord to maintain premises., SC ST § 27-40-440**

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Code of Laws of South Carolina 1976 Annotated  
Title 27. Property and Conveyances (Refs & Annos)  
Chapter 40. Residential Landlord and Tenant Act (Refs & Annos)  
Article 3. Landlord Obligations

Code 1976 § 27-40-440

§ 27-40-440. Landlord to maintain premises.

Currentness

(a) A landlord shall:

(1) comply with the requirements of applicable building and housing codes materially affecting health and safety;

(2) make all repairs and do whatever is reasonably necessary to put and keep the premises in a fit and habitable condition;

(3) keep all common areas of the premises in a reasonably safe condition, and, for premises containing more than four dwelling units, keep in a reasonably clean condition;

(4) make available running water and reasonable amounts of hot water at all times and reasonable heat except where the building that includes the dwelling unit is not required by law to be equipped for that purpose, or the dwelling unit is so constructed that heat or hot water is generated by an installation within the exclusive control of the tenant and supplied by a direct public utility connection;

(5) maintain in reasonably good and safe working order and condition all electrical, gas, plumbing, sanitary, heating, ventilating, air conditioning, and other facilities and appliances, including elevators, supplied or required to be supplied by him. Appliances present in the dwelling unit are presumed to be supplied by the landlord unless specifically excluded by the rental agreement. No appliances or facilities necessary to the provision of essential services may be excluded.

(b) If the duty imposed by paragraph (1) of subsection (a) is greater than any duty imposed by any other paragraph of that subsection, the landlord's duty must be determined by reference to paragraph (1) of subsection (a).

(c) The landlord and tenant of a single family residence may agree in writing that the tenant perform the landlord's duties specified in paragraph (5) of subsection (a) and also specified repairs, maintenance tasks, alterations, and remodeling, but only if the transaction is entered into in good faith and not for the purpose of evading the obligations of the landlord.

(d) The landlord and tenant of any dwelling unit other than a single family residence may agree that the tenant is to perform specified repairs, maintenance tasks, alterations, or remodeling only if:

§ 27-40-440. Landlord to maintain premises., SC ST § 27-40-440

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- (1) the agreement of the parties is entered into in good faith and not for the purpose of evading the obligations of the landlord;
- (2) the work is not necessary to cure noncompliance with subsection (a)(1) of this section;
- (3) the agreement does not diminish or affect the obligations of the landlord to other tenants in the premises.

**Credits**

HISTORY: 1986 Act No. 336, § 1.

[Notes of Decisions \(23\)](#)

Code 1976 § 27-40-440, SC ST § 27-40-440

Current through 2022 Act No. 268, subject to final approval by the Legislative Council, technical revisions by the Code Commissioner, and publication in the Official Code of Laws.

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**SECTION VI. ASBESTOS BUILDING INSPECTION..., SC ADC 61-86.1 § VI**

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South Carolina Code of State Regulations Annotated

Regulations

Chapter 61. Department of Health and Environmental Control (Refs & Annos)

61-86.1. Standards of Performance for Asbestos Projects. (Refs & Annos)

S.C. Code of Regulations R. 61-86.1 § VI

Formerly cited as SC ADC 61-86.1

**SECTION VI. ASBESTOS BUILDING INSPECTION REQUIREMENTS.****Currentness****A. Applicability.**

1. Prior to beginning a renovation or demolition operation at any facility, the facility owner and/or owner's representative shall ensure that an asbestos building inspection is performed to identify the presence of ACM.
2. The asbestos building inspection shall include the facility or part of the facility affected by the renovation or demolition operation.
3. The facility owner and/or owner's representative shall ensure the asbestos building inspection is completed by a person licensed as an asbestos building inspector or management planner.
4. When materials that will be disturbed by the renovation or demolition operation are assumed to be asbestos without the use of laboratory bulk sample results, the provisions of Section VI.A.3 of this regulation does not apply.
5. In a multi-unit building, each separate room in each part of the building or areas affected by the renovation or demolition operation shall be inspected to confirm and quantify ACM homogeneous areas for sampling purposes.
6. To be acceptable, a building inspection shall have been performed no earlier than three years prior to the renovation or demolition, or, if more than three years have elapsed since the most recent inspection, the previous inspection shall be confirmed and verified by a person licensed as a building inspector.
7. The Department will not accept an asbestos building inspection or written report for any structure from an employee of an abatement company also involved in the removal of asbestos-containing materials from that structure, unless the licensed inspector is an employee of an entity regulated under Section XX of this regulation.
8. An asbestos building inspector shall not participate in the analysis of the bulk samples he or she has collected.

**SECTION VI. ASBESTOS BUILDING INSPECTION..., SC ADC 61-86.1 § VI**

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**B. Asbestos Inspection.**

The building inspector or management planner shall:

1. Visually inspect the areas that may be affected by the renovation or demolition operation to identify the locations of all suspected ACM. For a pre-demolition inspection, destructive sampling techniques shall be utilized;
2. Touch all suspected ACM to determine condition, friability, and whether ACM is a regulated material in areas that may be affected by the renovation or demolition operation;
3. Identify all homogeneous areas of suspected ACM in areas that may be affected by the renovation or demolition operation;
4. In areas that may be affected by the renovation or demolition operation, assume that some or all of the homogeneous areas are ACM, and/or for each homogeneous area that is not assumed to be ACM, collect and submit bulk samples for analysis in compliance with this Section;
5. Material Safety Data Sheets (MSDS), statements from the manufacturer, and architecture signoff will not be accepted as proof that a building product contains no asbestos, except in cases where the owner can verify the direct correlation of the building product to the MSDS, statements from the manufacturer, and/or architecture signoff documents. The Department reserves the right to reject documentation that it deems unacceptable.

**C. Asbestos Inspection Report Contents.**

1. Prior to each demolition operation and upon request for renovations, the Department shall be provided with a complete, legible copy of the asbestos building inspection report.
2. The inspection report shall include:
  - a. A title page denoting:
    - (1) The client's name, company, address, and telephone number, and the name and exact location of the facility inspected;
    - (2) The date the inspection was performed;
    - (3) The date the inspection report was written; and

**SECTION VI. ASBESTOS BUILDING INSPECTION..., SC ADC 61-86.1 § VI**

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(4) The printed name and telephone number of the inspector(s), and his or her affiliated company name, address, and telephone number.

b. A cover letter to the building owner or owner's representative that describes the purpose of the inspection; a general synopsis of the inspection and results; and the name, title, and signature of the inspector(s) and report writer, if different.

c. A detailed narrative of the physical description of the building or part of the building affected by the renovation or demolition operation that includes:

(1) The square footage of the building or part of the building affected by the renovation or demolition operation;

(2) The building materials used in the construction of the exterior, roof, interior, and basement or crawlspace of the building affected by the demolition or affected by the renovation materials operation; and

(3) An estimated or exact quantity (square or linear feet) for all suspect materials whether sampled for or assumed to be asbestos that may be affected by the renovation or demolition operation;

(4) Also include a description of non-suspect materials excluding: glass, metals, kiln brick, cement, fiberglass, concrete, pressed wood, cinder block, and rubber.

d. An executive summary that details:

(1) The type of suspect ACM (e.g., TSI, floor tile, mastic), total square or linear footage, and the total number of samples collected for each separate homogenous area affected by the renovation or demolition operation;

(2) The date of the inspection, type, condition, quantity, sample results, and exact location of ACM positively identified or assumed to be ACM in the part of the building affected by the renovation or demolition operation; and

(3) A list of the homogeneous areas identified are:

(a) Surfacing material that includes, but is not limited to, joint compound; plaster; and painted, troweled on, or spray-applied textured material;

(b) Thermal system insulation (TSI) that includes, but is not limited to, pipe and boiler insulation; or

**SECTION VI. ASBESTOS BUILDING INSPECTION..., SC ADC 61-86.1 § VI**

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(c) Miscellaneous material that includes, but is not limited to, flooring, roofing, mastics, gaskets, cementitious materials, caulking, ceiling tiles, fire doors, wall boards, and flexible duct connections;

(4) Whether the material is accessible for the building or part of the building affected by the renovation or demolition operation; and

(5) The material's potential for disturbance for the building or part of the building affected by the renovation or demolition operation.

e. For renovation and demolition operations, the inspector's determination that ACM is friable or non-friable.

f. Except when suspect ACM materials are assumed to be asbestos, include a complete, clear, legible copy of all laboratory bulk sample results.

g. Clear, legible drawings and/or photographs to clarify the scope of the renovation or demolition operation. Illustrate the exact location of each sample collected. For facilities that involve a trade secret or confidential component or an affected area process, a request for a variance may be submitted.

h. The printed name and signature of each accredited inspector who collected the samples, and a clear legible copy of his or her Department issued asbestos building inspector or management planner license.

**D. Sampling.**

1. A licensed asbestos inspector shall collect, in a statistically random manner, a minimum of three bulk samples from each homogeneous area of any surfacing that is not assumed to be ACM, and shall collect the samples as follows:

a. At least three bulk samples shall be collected from each homogeneous area that is 1,000 or fewer square feet (sf) or linear feet (Lf) in size.

b. At least five bulk samples shall be collected from each homogeneous area that is greater than 1,000 but fewer than or equal to 5,000 sf or Lf.

c. At least seven bulk samples shall be collected from each homogeneous area that is greater than 5,000 sf or Lf.

2. A licensed asbestos inspector shall collect, in a statistically random manner, at least three bulk samples from each homogeneous area of TSI and any miscellaneous material that is not assumed to be ACM. In accordance with ASTM

**SECTION VI. ASBESTOS BUILDING INSPECTION..., SC ADC 61-86.1 § VI**

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**E2356**, and any subsequent amendments and editions, negative results for non-friable organically bound materials such as flooring and roofing shall be verified with at least one TEM analysis.

3. Each owner/operator shall have all bulk samples collected per this regulation analyzed for asbestos using laboratories accredited by the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP), or an equivalent standard as approved by the Department.

4. Bulk samples shall be analyzed for asbestos content by polarized light microscopy (PLM) using the “Interim Method for the Determination of Asbestos in Bulk Insulation Samples” found in Appendix E to subpart E of 40 CFR 763, the “Method for the Determination of Asbestos in Bulk Building Materials” (EPA/600/R-93/116), ASTM **E2356**, or other method(s) deemed acceptable by the Department on a case-by-case basis.

5. A homogeneous area is not considered to contain ACM only if the results of all samples required to be collected from the area show asbestos in amounts of one percent (1%) or less.

6. A homogeneous area shall be determined to contain ACM based on a finding that the results of at least one sample collected from that area shows that asbestos is present in an amount greater than one percent (1%).

Current through State Register Volume 46, Issue 11, eff November 25, 2022.

S.C. CODE REGS. 61-86.1 § VI, SC ADC 61-86.1 § VI

**71-8300.2. Codes and Standards., SC ADC 71-8300.2**

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South Carolina Code of State Regulations Annotated

Regulations

Chapter 71. Department of Labor, Licensing and Regulation--Division of Labor (Refs & Annos)

Article 8. Office of State Fire Marshal

Subarticle 1. Fire Prevention and Life Safety

71-8300. Fire Prevention and Life Safety. (Refs & Annos)

S.C. Code of Regulations R. 71-8300.2

Formerly cited as SC ADC 71-8300

71-8300.2. Codes and Standards.

**Currentness**

A. All references to codes and standards found in these regulations refer to the editions specified in the IFC unless otherwise stated in these regulations or adopted by state statutes.

B. The requirements of the IFC, International Fire Code, (as adopted pursuant to [S.C. Code Ann. Section 6-9-5, et. seq.](#), 1976, as amended) shall constitute the minimum standards for fire prevention and life safety protection for construction, occupancy, and use of all buildings, structures, and premises within the scope of these regulations except as modified by these regulations. In addition, to the extent to which they can be applied without conflicting with other state regulations or state statutes, the following sections of Chapter 1 of the IFC shall apply:

1. Scope and General Requirements (Section 101). “The State of South Carolina” shall be used for the Name of Jurisdiction.
2. Applicability (Section 102)
3. Liability (Section 103.4)
4. General Authority and Responsibilities (Section 104)
5. Maintenance (Section 107)
6. Unsafe Buildings (Section 110)

C. The requirements of NFPA 10, Standard for Portable Fire Extinguishers, shall be used as referenced within the adopted ICC codes for the installation, servicing, maintenance, recharging, repairing, and hydrostatic testing of all portable fire extinguishers.

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D. The requirements of the following NFPA standards shall be used as referenced within the adopted ICC codes for the design, installation, testing and maintenance of fixed fire extinguishing systems in South Carolina except as modified by these regulations.

1. NFPA 11, Standard for Low-, Medium-, and High-Expansion Foam
2. NFPA 12, Standard on Carbon Dioxide Extinguishing Systems
3. NFPA 12A, Standard on Halon 1301 Fire Extinguishing Systems
4. NFPA 17, Standard for Dry Chemical Extinguishing Systems
5. NFPA 17A, Standard for Wet Chemical Extinguishing Systems
6. NFPA 750, Standard on Water Mist Fire Protection Systems
7. NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems
8. NFPA 2010, Standard for Fixed Aerosol Fire Extinguishing Systems

E. The requirements of the following NFPA standards shall be used as referenced within the adopted ICC codes for the design, installation, testing, and maintenance of water-based extinguishing systems in South Carolina except as modified by these regulations.

1. NFPA 13, Standard for the Installation of Sprinkler Systems
2. NFPA 13D, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes
3. NFPA 13R, Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies
4. NFPA 14, Standard for the Installation of Standpipe and Hose Systems
5. NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection

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6. NFPA 16, Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems

7. NFPA 18, Standard on Wetting Agents

8. NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection

9. NFPA 22, Standard for Water Tanks for Private Fire Protection

10. NFPA 24, Standard for the Installation of Private Fire Service Mains and Their Appurtenances

11. NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems

12. NFPA 214, Standard on Water-Cooling Towers

F. The requirements of NFPA 30, Flammable and Combustible Liquids Code, shall be used as referenced within the adopted ICC codes for the storing and handling of flammable and combustible liquids in South Carolina except as modified by these regulations.

G. The requirements of NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages, shall be used as referenced within the adopted ICC codes for the storing, handling, and dispensing of flammable and combustible liquids at service stations, farms, and isolated sites in South Carolina except as modified by these regulations.

H. The requirements of NFPA 52, Vehicular Gaseous Fuel Systems Code, shall be used as referenced within the adopted ICC codes for storing, handling, and dispensing vehicular alternative fuels in South Carolina except as modified by these regulations.

I. The requirements of NFPA 54, National Fuel Gas Code, shall be used as referenced within the adopted ICC codes for design, materials, components, fabrication, assembly, installation, testing, inspection, operation, and maintenance installation of fuel gas piping systems, appliances, equipment, and related accessories, installation, combustion, and ventilation air and venting in South Carolina except as modified by these regulations.

J. The requirements of NFPA 58, Liquefied Petroleum Gas Code, shall be used as referenced within the adopted ICC codes for the design, construction, location, installation and operation of equipment for storing, handling, transporting by tank truck or tank trailer, and use of LP-Gases and the odorization of such gases in South Carolina except as modified by these regulations.

K. The requirements of NFPA 59, Utility LP-Gas Plant Code, shall be used as referenced within the adopted ICC codes for the design, construction, location, installation, operation, and maintenance of refrigerated and non-refrigerated utility gas plants to

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the point where LP-Gas or an LP-Gas and air mixture is introduced into the utility distribution system in South Carolina except as modified by these regulations.

L. The requirements of NFPA 70, National Electrical Code, shall be used as referenced within the adopted ICC codes for fire prevention and life safety from hazards of electricity in South Carolina except as modified by these regulations.

M. The requirements of NFPA 72, National Fire Alarm and Signaling Code, shall be used as referenced within the adopted ICC codes for the design, installation, testing, and maintenance of fire alarm systems in South Carolina except as modified by these regulations.

N. The requirements of NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, shall be used as referenced within the adopted ICC codes for ventilation control and fire protection of commercial cooking operations in South Carolina except as modified by these regulations.

O. The requirements of NFPA 99, Health Care Facilities Code, shall be used as referenced within the adopted ICC codes for flammable and non-flammable medical gasses used in health care and other facilities intended for inhalation or sedation, but not limited to, analgesia systems for dentistry, podiatry, veterinary, and similar uses in South Carolina except as modified by these regulations.

P. The requirements of NFPA 101, Life Safety Code, shall be used as referenced within the adopted ICC codes for fire prevention and life safety in South Carolina when evaluating alternative methods of fire and life safety per R. 71-8300.10 except as modified by these regulations.

Q. The requirements of the NFPA 102, Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures, shall be used as referenced within the adopted ICC codes for fire prevention and life safety for all tents and membrane structures normally used in South Carolina except as modified by these regulations.

R. The requirements of NFPA 160, Standard for the Use of Flame Effects Before an Audience, including Annexes B and C, shall be used as referenced within the adopted ICC codes for all flame effects use in proximate audience pyrotechnics displays or motion picture special effects in South Carolina except as modified by these regulations.

S. The requirements of NFPA 407, Standard for Aircraft Fuel Servicing, shall be used as referenced within the adopted ICC codes for the storing, handling, and dispensing of flammable and combustible liquids at private aircraft fueling facilities in South Carolina except as modified by these regulations.

T. The requirements of NFPA 409, Standard on Aircraft Hangars, shall be used as referenced within the adopted ICC codes for the design construction, occupancy, and use of aircraft hangars in South Carolina except as modified by these regulations.

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U. The requirements of NFPA 495, Explosive Materials Code, shall be used as referenced within the adopted ICC codes for the manufacture, transportation, use and storage for all explosives in South Carolina, except as modified herein.

V. The requirements of NFPA 1122, Code for Model Rocketry, shall be used as referenced within the adopted ICC codes for model rocketry associated with public firework displays or proximate audience pyrotechnic displays or motion picture special effects in South Carolina except as modified by these regulations.

W. The requirements of NFPA 1123, Code for Fireworks Display, including Annex A and E, shall be used as referenced within the adopted ICC codes for all firework displays in South Carolina except as modified by these regulations.

X. The requirements of NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles, shall be used as referenced within the adopted ICC codes for transportation, storage, and use of all display fireworks and pyrotechnic articles used for proximate audience pyrotechnic displays or motion picture special effects in South Carolina except as modified by these regulations.

Y. The requirements of NFPA 1126, Standard for the Use of Pyrotechnics Before a Proximate Audience, including Annexes A, B, and D, shall be used as referenced within the adopted ICC codes for all proximate audience displays in South Carolina except as modified by these regulations.

Z. The requirements of NFPA 1127, Code for High Power Rocketry, shall be used as referenced within the adopted ICC codes for all high power rockets used for proximate audience pyrotechnic displays or motion picture special effects in South Carolina except as modified by these regulations.

AA. The requirements of NFPA 1142, Standard on Water Supplies for Suburban and Rural Fire Fighting, shall be used as referenced within the adopted ICC codes for water supplies for rural fire fighting in South Carolina except as modified by these regulations.

BB. The OSFM shall post and maintain a list of the currently adopted editions of the codes and standards listed above on the OSFM website.

CC. The codes and standards listed in R.71-8300.2 that are adopted by the OSFM shall be accessible for viewing at no cost to the public through the OSFM website.

**Credits**

HISTORY: Added by State Register Volume 23, Issue No. 6, eff June 25, 1999. Amended by State Register Volume 33, Issue No. 5, eff May 22, 2009; State Register Volume 38, Issue No. 4, eff April 25, 2014; State Register Volume 38, Issue No. 6, Doc. No. 4445, eff June 27, 2014; State Register Volume 39, Issue No. 6, Doc. No. 4555, eff June 26, 2015; State Register Volume 40, Issue No. 6, Doc. No. 4618, eff June 24, 2016.

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Current through State Register Volume 46, Issue 11, eff November 25, 2022.

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**CERTIFICATE OF SERVICE**

I certify that on December 12, 2022, I electronically filed the foregoing with the Clerk of the U.S. Court of Appeals for the D.C. Circuit via the Court's CM/ECF system. Counsel for all parties will be electronically served via the Court's CM/ECF system.

Dated: December 12, 2022

/s/ Jacob M. Karr

Jacob M. Karr

Counsel for *Amicus Curiae*