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Part II

Department of Labor

Occupational Safety and Health Administration

29 CFR Parts 1910 and 1926

Standards Improvement (Miscellaneous Changes) For General Industry and Construction Standards; Paperwork Collection for Coke Oven Emissions and Inorganic Arsenic; Final Rule

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Parts 1910 and 1926

[Docket No. S–778]

RIN 1218–AB 53

Standards Improvement (Miscellaneous Changes) for General Industry and Construction Standards; Paperwork Collection for Coke Oven Emissions and Inorganic Arsenic

AGENCY: Occupational Safety and Health Administration, Labor.

ACTION: Final rule.

SUMMARY: The Occupational Safety and Health Administration (OSHA) is removing from the Code of Federal Regulations or revising provisions in its standards that are out of date, duplicative, unnecessary, or inconsistent. The Agency is making these regulatory changes to reduce the burden imposed on the regulated community by these provisions and to respond to a March 4, 1995 memorandum from the President. In this document, substantive changes are made to both health and safety standards that will revise or eliminate duplicative, inconsistent, or unnecessary regulatory requirements without diminishing employee protections. Changes being made to health standards include reducing the frequency of required chest x-rays and eliminating sputum-cytology examinations for workers covered by the coke oven and inorganic arsenic standards, and changing the emergency-response provisions of the vinyl chloride standard. Changes being made to OSHA safety standards include eliminating the public safety provisions of the temporary labor camp standard, eliminating unnecessary cross-references in the textile industry standards, and others. OSHA estimates that these changes will result in annualized savings for employers of over $9,600,000 and in reducing paperwork burden of 6600 hours annually.

EFFECTIVE DATE: This final rule becomes effective August 17, 1998.

ADDRESSES: Send petitions for review of this final rule to the Associate Solicitor for Occupational Safety and Health, Office of the Solicitor, Room S–4004, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, DC 20210.

For additional copies of this rule contact U.S. Department of Labor, Occupational Safety and Health Administration, Office of Publications, Room N–3101, 200 Constitution Avenue, N.W., Washington, DC 20210, (202) 219–9667.

For an electronic copy of this **Federal Register** notice, contact the Labor News Bulletin Board at (202) 219–4748; or OSHA's Web Site on the Internet at http://www.osha.gov. For news releases, fact sheets, and other short documents, contact OSHA FAX at (900) 555–3400 at $1.50 per minute.

FOR FURTHER INFORMATION CONTACT: Bonnie Friedman, Director, Office of Information and Consumer Affairs, Occupational Safety and Health Administration, Room N–3637, U.S. Department of Labor, 200 Constitution Avenue N.W., Washington, DC 20210, (202) 219–8151.

SUPPLEMENTARY INFORMATION:

Table of Contents

References to the rulemaking record are provided in the text of the preamble. References are identified as ''Ex.'' followed by a number to designate the reference in this rulemaking docket, S–778. For example, ''Ex. 3'' means exhibit three in Docket S–778. Exhibit 3 is a copy of the ''Notice of Proposed Rulemaking for Miscellaneous Changes to General Industry and Construction Standards; Proposed Paperwork Collection, Comment Request for Coke Oven Emissions and Inorganic Arsenic'', the first step in the rule-making action being completed today, which was published in the **Federal Register** on July 22, 1996 (61 FR 37849).

A list of exhibits and copies of the exhibits are available in the OSHA Docket Office, Room N–2625, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, DC 20210, (202) 219–7894.

I. Background

OSHA has made a continuing effort to eliminate confusing, outdated, and duplicative requirements from its standards and regulations. In 1978 and again in 1984, the Agency conducted revocation and revision projects that resulted in the elimination of hundreds of unnecessary provisions. In response to the President's Memorandum of March 4, 1995, which requested Agencies to review and stream-line their regulations, the Agency continued this effort by conducting a line-by-line review of its regulations to determine where they could be eliminated, simplified or clarified. As a result of this review, OSHA completed a document on May 31, 1995, entitled ''OSHA's Regulatory Reform Initiatives'' (Ex. L–5). That document detailed the Agency's findings as to which regulations could be deleted or revised without reducing employee health and safety. OSHA stated in that document that clarifying, deleting, or revising these regulations would improve employer compliance and, consequently, enhance safety and health protection for employees.

The Agency began the rulemaking process that would implement the changes identified in the review with an administrative notice that made minor clarifications and technical amendments to OSHA standards (61 FR 9228, March 7, 1996). In a second notice, duplicate health provisions from the shipyard and construction standards were eliminated and replaced with cross-references to the identical text in the general industry standards (61 FR 31427, June 20, 1996). Eliminating these duplicate provisions

has reduced the number of pages devoted to OSHA rules in the Code of Federal Regulations (CFR) without changing the substantive requirements of the standards.

On July 22, 1996 (61 FR 37849), OSHA proposed substantive changes to certain standards that the Agency believed are unnecessary to, duplicative of, or inconsistent with the protection of worker safety and health. OSHA requested comments and set 60 days for their receipt. The final changes supported by the public record, and reflected in the **Federal Register** notice being published today, complete the regulatory action initiated with the July, 1996 **Federal Register** notice. OSHA is also reducing paperwork burden by deleting the requirements for sputum-cytology examinations and reducing the frequency of chest x-rays for workers covered by the arsenic and coke oven emissions standards.

II. Distribution Table

For the convenience of the public, OSHA is providing a distribution table, below, which shows the section designations of those existing OSHA General Industry rules that are being removed, removed and reserved, and redesignated in this rulemaking action.

Old Section (29 CFR 1910)	New Section (29 CFR 1910)
110(b)(15)(vi)	Removed.
110(b)(15)(vii)	Removed.
110(b)(15)(viii)	Removed.
110(b)(15)(ix)	110(b)(15)(vi).
110(c)(2)(i)	110(c)(2).
110(c)(2)(ii)	Removed.
110(c)(2)(iii)	Removed.
110(c)(2)(iv)	Removed.
110(e)(10)	Removed and Reserved.
110(g)	Removed and Reserved.
111(f)(7)	Removed and Reserved.
111(f)(8)	Removed and Reserved.
141(a)(2)(i)	Removed.
141(a)(2)(ii)	Removed Paragraph Designation.
141(a)(2)(iii)	Removed Paragraph Designation.
141(a)(2)(iv)	Removed Paragraph Designation.
141(a)(2)(v)	Removed Paragraph Designation.
141(a)(2)(vi)	Removed Paragraph Designation.
141(a)(2)(vii)	Removed Paragraph Designation.
141(a)(2)(viii)	Removed Paragraph Designation.
141(a)(2)(ix)	Removed Paragraph Designation.
141(a)(2)(x)	Removed Paragraph Designation.
141(a)(2)(xi)	Removed Paragraph Designation.
142(a)(4)	Removed.
151	Added Appendix A.
156(f)(2)(iii)	Removed.
183(a)	Removed and Reserved.
261(a)(3)(ii)	Removed.
261(a)(3)(iii)	261(a)(3)(ii) .
261(a)(3)(iv)	Removed.
261(a)(3)(v)	Removed.
261(a)(3)(vi)	Removed.
261(a)(3)(vii)	261(a)(3)(iii).
261(a)(3)(viii)	261(a)(3)(iv).
261(a)(3)(ix)	Removed.
261(a)(3)(x)	261(a)(3)(v).
261(a)(3)(xi)	Removed.
261(a)(3)(xii)	Removed.
261(a)(3)(xiii)	Removed.
261(a)(3)(xiv)	261(a)(3)(vi).
261(a)(3)(xv)	Removed.
261(a)(3)(xvi)	261(a)(3)(vii).
261(a)(3)(xvii)	Removed.
261(a)(3)(xviii)	Removed.
261(a)(3)(xix)	Removed.
261(a)(3)(xx)	Removed.
261(a)(3)(xxi)	261(a)(3)(viii).
261(a)(3)(xxii)	Removed.
261(a)(3)(xxiii)	261(a)(3)(ix).
261(a)(3)(xxiv)	Removed.
261(a)(3)(xxv)	Removed.
261(a)(3)(xxvi)	Removed.
261(a)(3)(xxvii)	Removed.
261(b)(1)	Removed.
261(b)(2)	Removed.
261(b)(3)	Removed.
261(b)(4)	261(b)(1).
261(b)(5)	Removed.
261(b)(6)	Removed.
261(b)(7)	261(b)(2).
261(c)(2)(vi)	Removed.

Old Section (29 CFR 1910)	New Section (29 CFR 1910)
261(c)(2)(vii)	Removed.
261(c)(2)(viii)	261(c)(2)(vi).
261(c)(6)(i)	261(c)(6).
261(c)(6)(ii)	Removed.
261(c)(7)(i)	261(c)(7).
261(c)(7)(ii)	Removed.
261(d)(1)(i)	261(d)(1).
261(d)(1)(ii)	Removed.
261(e)(3)	Removed and Reserved.
261(e)(7)	Removed and Reserved.
261(e)(9)	Removed and Reserved.
261(g)(1)(iv)	Removed.
261(g)(1)(v)	261(g)(1)(iv).
261(g)(2)(i)	Removed.
261(g)(2)(ii)	261(g)(2)(i).
261(g)(2)(iii)	261(g)(2)(ii).
261(g)(15)(iv)	Removed.
261(g)(15)(v)	261(g)(15)(iv).
261(g)(15)(vi)	Removed.
261(h)(2)(iii)	Removed.
261(h)(2)(iv)	261(h)(2)(iii).
261(j)(1)(iv)	Removed and Reserved.
261(j)(3)	Removed and Reserved.
261(j)(4)(ii)	Removed.
261(j)(4)(iii)	261(j)(4)(ii).
261(j)(4)(iv)	261(j)(4)(iii).
261(j)(4)(v)	261(j)(4)(iv).
261(j)(4)(vi)	261(j)(4)(v).
261(j)(5)(iv)	Removed.
261(j)(6)(ii)	Removed.
261(j)(6)(iii)	261(j)(6)(ii).
261(k)(2)(i)	Removed.
261(k)(2)(ii)	261(k)(2)(i).
261(k)(2)(iii)	261(k)(2)(ii).
261(k)(2)(iv)	261(k)(2)(iii).
261(k)(2)(v)	261(k)(2)(iv).
261(k)(2)(vi)	261(k)(2)(v).
261(k)(4)	Removed and Reserved.
261(k)(16)	Removed and Reserved.
261(m)(2)	Removed and Reserved.
261(m)(4)	Removed and Reserved.
261(m)(5)(i)	Removed.
261(m)(5)(ii)	Removed.
261(m)(5)(iii)	261(m)(5).
262(c)(3)	Removed and Reserved.
262(c)(4)	Removed and Reserved.
262(gg)	Removed and Reserved.
262(ll)(1)	Removed.
262(ll)(2)	262(ll).
262(qq)(1)	Removed.
262(qq)(2)	Removed.
262(rr)	Removed.
265(a)(1)	265(a).
265(a)(2)	Removed.
265(c)(3)(i)	Removed and Reserved.
265(c)(10)	Removed and Reserved.
265(c)(14)	Removed and Reserved.
265(c)(16)	Removed and Reserved.
265(c)(17)	Removed and Reserved.
265(c)(22)	Removed and Reserved.
265(c)(24)(iv)(a)	Removed.
265(c)(24)(iv)(b)	265(c)(24)(iv).
265(c)(24)(iv)(c)	Removed.
265(c)(26)(i)	Removed and Reserved.
265(c)(30)(vi)	Removed and Reserved.
265(c)(30)(x)	Removed and Reserved.
265(e)(3)(ii)(d)	Removed and Reserved.
265(f)(9)	Removed.
265(g)	Removed.
265(h)	Removed.
265(i)	Removed.
267	Removed and Reserved.
268(f)	Removed and Reserved.
1017(g)(5)(i)	Removed.

Old Section (29 CFR 1910)	New Section (29 CFR 1910)
1017(g)(5)(ii)	Removed.
1017(g)(6)	1017(g)(5) .
1017(g)(7)	1017(g)(6).
1018(n)(2)(ii)(C)	Removed.
1018(n)(2)(ii)(D)	1018(n)(2)(ii)(C).
1018(q)(2)(iii)(F)	Removed.
1018(q)(2)(iii)(G)	Removed.
1018(q)(2)(iii)(H)	Removed.
1018 App C, Section I, General	Removed ''(4) A sputum cytology examination;''.
1018 App C, Section I, General	Redesignated paragraph 5 as paragraph 4
1018 App C, Section I, General	Removed entire section entitled ''III. Sputum cytology''.
1029(j)(2)(vii)	Removed.
1029(j)(2)(viii)	1029(j)(2)(vii). Added new 1029(j)(3)(iv).
1029(j)(3)(iv)	1029(j)(3)(v).

III. Summary and Explanation

In this section, OSHA explains the changes made to each regulatory provision being removed, revised, or redesignated. First, the changes that were proposed in the July 1996 Notice of Proposed Rulemaking (NPRM) and the reasons for proposing those changes are discussed. Next, any comments that OSHA received about the proposed changes are identified and addressed. Finally, the action that OSHA is taking with regard to the proposed changes is explained.

The proposed changes to Part 1910 standards are listed first, followed by those for Part 1926. Within this framework, provisions that received either no comments or positive comments only are listed first, in numerical order, followed by the few provisions for which minor varied comments were received.

Amendments to Part 1910 That Received No Comments or Positive Comments Only

A. Explosives and Blasting Agents (§ 1910.109)

Paragraph (d)(1)(iv) of § 1910.109 prohibits the transporting of blasting caps on a vehicle that is carrying other explosives. However, The Department of Transportation (DOT) has issued regulations that provide an approved method for safely transporting blasting caps on the same vehicle with other explosives. Therefore, OSHA proposed to amend paragraph (d)(1)(iv) of 29 CFR 1910.109 to permit transporting blasting caps on the same vehicle with other explosives if they are transported in accordance with the method specified in the DOT regulations at 49 CFR 177.835(g)(3)(i).

OSHA received supporting comments (e.g. Ex. 4: 1,10) on the proposed provision, and no commenter opposed the proposed action. As a result, OSHA is amending paragraph (d)(1)(iv) of § 1910.109 as proposed.

Paragraph (e)(2)(i) of § 1910.109 requires that boxes and packaging materials that have previously contained explosives not be used again and be destroyed by burning at an approved outdoor location. However, environmental agencies often will not permit the burning of these materials. Additionally, DOT permits the re-use of such packaging materials if such re-use is accomplished in accordance with certain criteria contained in 49 CFR 173.28.

OSHA proposed to amend paragraph (e)(2)(i) to permit reusing uncontaminated containers and packaging materials if such re-use is accomplished in accordance with DOT regulations.

All of the comments OSHA received on this provision supported the proposed action. For example, the Institute of Manufacturers of Explosives (IME) (Ex. 4: 10 pp. 1–2) stated:

In addition, IME supports OSHA's amendment to § 1910.109 (e)(2)(i). The amended regulation will allow companies to reuse, rather than burn, uncontaminated packaging materials. As a result, companies will not be forced to violate state or local prohibitions against burning in order to comply with OSHA, or vice versa.

Accordingly, OSHA is amending paragraph (e)(2)(i) of § 1910.109 as proposed.

B. Storing and Handling of Liquefied Petroleum Gases (§ 1910.110)

Paragraphs (b)(15)(v)–(vii) of § 1910.110 contain requirements for the location of backflow check valves, excess-flow valves, and shutoff valves on tank cars and transport trucks. Paragraph (b)(15)(viii) of § 1910.110 contains requirements for locating tank cars and transport trucks during loading and unloading operations.

OSHA had proposed to delete paragraphs (b)(15)(v)–(viii) of § 1910.110, because the design of transportation vehicles and the safe location of such vehicles during loading and unloading operations are under the jurisdiction of DOT and not OSHA. Upon further review of these paragraphs, OSHA has concluded that paragraph (b)(15)(v) is not under the jurisdiction of DOT, since it addresses valves associated with storage tank piping located at a worksite. Accordingly, OSHA is retaining paragraph (b)(15)(v) and deleting paragraphs (b)(15)(vi)–(viii). OSHA is also redesignating paragraph (b)(15)(ix) as new paragraph (b)(15)(vi) of § 1910.110.

Paragraphs (c)(2)(ii)–(iv) of § 1910.110 contain specifications for marking LPG cylinders. OSHA proposed deleting these marking specifications because they duplicate DOT requirements. No comments were received on the proposed changes, and OSHA is deleting the text of paragraphs (c)(2)(ii)–(iv). OSHA is also redesignating paragraph (c)(2)(i) as new paragraph (c)(2).

Paragraph (e)(10) of § 1910.110 contains limitation requirements on the capacity of LPG containers that are used to fuel passenger carrying vehicles. OSHA proposed deleting these requirements pertaining to passenger carrying vehicles because they are under the jurisdiction of DOT. No comments were received on the proposed changes, and OSHA is deleting the text of paragraph (e)(10) of § 1910.110 and reserving the paragraph designation.

Paragraph (g) of § 1910.110 contains requirements for installing LP-gas systems on commercial vehicles. OSHA proposed deleting these requirements because the installation of LP-gas systems on commercial vehicles is under the jurisdiction of DOT. No comments were received on the proposed changes. OSHA, therefore, is deleting the text from paragraph (g) of § 1910.110 and reserving the paragraph designation.

C. Storing and Handling of Anhydrous Ammonia (§ 1910.111)

Paragraph (f)(7) of § 1910.111 contains safety requirements for full trailers and semitrailers that transport ammonia. Paragraph (f)(8) of § 1910.111 contains requirements to protect such vehicles from collision. Because full trailers and semitrailers that transport ammonia are under the jurisdiction of DOT, OSHA proposed deleting the text of paragraphs (f)(7) and (f)(8) of § 1910.111 and reserving the paragraph designations.

OSHA received no comments on the proposed changes, and the text of paragraphs (f)(7) and (f)(8) of § 1910.111 is therefore being deleted and the paragraph designations are being reserved.

D. Sanitation (§ 1910.141)

OSHA proposed deleting the definition of ''lavatory'' given in paragraph (a)(2)(i) of § 1910.141. This definition stated that ''*lavatory* means a basin or similar vessel used exclusively for washing of hands, arms, faces, and head.'' OSHA believes that the meaning of the term Lavatory is self-explanatory in the context of the section and that deleting this definition will not diminish the health of employees in affected workplaces. No comments were received in opposition to the proposed deletion of the definition of ''lavatory'' in § 1910.141. The definition of ''lavatory'' is, therefore, being deleted from § 1910.141. Further, to conform to the format typically found in other OSHA standards, all paragraph designations for the definitions within paragraph (a)(2) of § 1910.141 are also being removed.

E. Temporary Labor Camps (§ 1910.142)

Paragraph 1910.142(a)(4) provides regulations for closing temporary labor camps. Upon closing a camp site, the regulations require the employer to collect all refuse, garbage, and manure, to fill all privy pits, to lock and secure any remaining privy buildings, and to leave all grounds and buildings in a clean and sanitary condition.

Because this paragraph deals with closing the site, which occurs after the employees have left, this paragraph does not relate to worker safety but to public safety, which is outside the Agency's mission. For these reasons, OSHA proposed removing paragraph 1910.142(a)(4). No comments were received on this issue, and paragraph 1910.142(a)(4) is accordingly being removed. OSHA notes, however, that employers may be responsible for adhering to other standards related to public health and safety in the locality or State in which the camp site is located.

F. Safety Color Code for Marking Physical Hazards (§ 1910.144)

Section 1910.144 provides guidance on the colors to use to mark physical hazards. These colors were required so that emergency devices and physical hazards could be identified quickly by employees. OSHA proposed removing these requirements from 29 CFR part 1910 because they have relatively narrow scope and for employers desiring guidance in this area, the American National Standards Institute standard ANSI Z535.1–91, Safety Color Code is available. No comments were received on this issue. However on reconsideration, OSHA has decided to retain this section to indicate that proper color coding is necessary for worker protection in emergencies.

G. Fire Brigades (§ 1910.156)

Section 1910.156 contains requirements for organizing, training, and providing personal protective equipment for members of fire brigades. Requirements for negative-pressure self-contained breathing apparatus are listed in § 1910.156(f)(2)(iii). These requirements were intended to remain mandatory for 18 months after the National Institute for Occupational Safety and Health (NIOSH) certified a positive-pressure breathing apparatus with the same or longer service life as the then required negative-pressure breathing apparatus. The 18-month period was to allow employers to phase in the new apparatus.

NIOSH has since certified a positive-pressure breathing apparatus, and the 18 month phase-in period has ended. This paragraph is therefore unnecessary and OSHA proposed removing it. There were no comments on the proposed change, and OSHA is therefore removing § 1910.156(f)(2)(iii) as proposed.

H. Helicopters (§ 1910.183)

Paragraph 1910.183(a) states that helicopter cranes are expected to comply with any applicable regulations of the Federal Aviation Administration (FAA). OSHA does not have the statutory authority to enforce FAA regulations for helicopters (found at 14 CFR part 133) and therefore proposed removing this paragraph. There were no comments on the proposed change and OSHA is therefore removing paragraph 1910.183(a) and reserving the paragraph designation as proposed.

I. Pulp, Paper, Paperboard Mills (§ 1910.261)

Section 1910.261 contains requirements that apply to establishments where pulp, paper, and paperboard are manufactured and converted. Paragraphs (a), (b), (c), (d), (e), (g), (h), (j), (k), and (m) of § 1910.261 require these establishments to comply with a number of standards of the American National Standards Institute (ANSI). Including these ANSI standards in § 1910.261 duplicates other standards in part 1910 that apply to general industry as a whole, cover the same hazards, and in many cases, share the same source materials as the provisions in § 1910.261.

All but one of the ANSI standards referenced in § 1910.261 were source documents for OSHA standards that have general application without regard to any specific industry. For example, ANSI Standard A12.1–1967, Safety Requirements for Floor and Wall Openings, Railings, and Toeboards is referenced in paragraph 1910.261(a)(3)(ii) and is also the source standard for Section 1910.23, Guarding Floor and Wall Openings and Holes.

OSHA believes that the OSHA standard, codified in Section 1910.23, provides equivalent or better protection for workers in this industry than the ANSI standard, A12.1–967, which is referenced in § 1910.261. Accordingly, OSHA proposed deleting paragraph 1910.261(a)(3)(ii).

Similarly, there are a number of other OSHA standards that OSHA believes can provide equivalent or better protection for pulp and paper workers than the ANSI standards referenced in paragraphs (a), (b), (c), (d), (e), (g), (h), (j), (k), and (m) in Section 1910.261. For this reason, OSHA proposed deleting many provisions of § 1910.261 and applying the corresponding provisions found elsewhere in part 1910. The following table lists the OSHA standards that were proposed for deletion, the referenced ANSI standards, and the OSHA standards that will provide equivalent or better protection.

Deleted standard	Referenced ANSI standard	Equivalent OSHA standard
1910.261(a)(3)(ii)	A12.1–1967	§ 1910.23
1910.261(a)(3)(iv)	A14.1–1968	§ 1910.25

Deleted standard	Referenced ANSI standard	Equivalent OSHA standard
1910.261(a)(3)(v)	A14.2–1956	§ 1910.26
1910.261(a)(3)(vi)	A14.3–1956	§ 1910.27
1910.261(a)(3)(ix)	B15.1–1953	§ 1910.219
1910.261(a)(3)(xi)	B30.2–1967	§ 1910.179
	B30.5–1968	§ 1910.180
1910.261(a)(3)(xii)	B30.2–1967	§ 1910.179
1910.261(a)(3)(xiii)	B30.2–1943	§ 1910.179
	B30.5–1968	§ 1910.180
1910.261(a)(3)(xv)	B56.1–1969	§ 1910.178
1910.261(a)(3)(xvii)	0.1–1954	§ 1910.213
		§ 1910.214
1910.261(a)(3)(xviii)	Z4.1–1968	§ 1910.141
1910.261(a)(3)(xix)	Z9.1–1951	§ 1910.94
1910.261(a)(3)(xx)	Z9.2–1960	§ 1910.94
1910.261(a)(3)(xxiv)	Z35.1–1968	§ 1910.145
1910.261(a)(3)(xxv)	Z87.1–1968	§ 1910.133
1910.261(a)(3)(xxvi)	Z88.2–1969	§ 1910.134
1910.261(a)(3)(xxvii)	Z89.1–1969	§ 1910.135
1910.261(b)(1)	B15.1–1953	§ 1910.219
1910.261(b)(2)	Z24.22–1957	§ 1910.132
	Z87.1–1968	§ 1910.133
	Z88.2–1968	§ 1910.134
	Z89.1–1969	§ 1910.135
1910.261(b)(3)	A12.1–1967	§ 1910.23
1910.261(b)(6)	B56.1–1969	§ 1910.178
1910.261(c)(2)(vi)	B30.2–1967	§ 1910.179
1910.261(c)(3)(i)	A12.1–1967	§ 1910.23
	A14.1–1968	§ 1910.25
	A14.2–1956	§ 1910.26
	A14.3–1956	§ 1910.27
1910.261(c)(8)(i)	B30.2–1967	§ 1910.179
1910.261(c)(11)	B56.1–1969	§ 1910.30
1910.261(d)(1)(ii)	Z87.1–1968	§ 1910.133
1910.261(e)(3)	B15.1–1955	§ 1910.219
1910.261(e)(7)	O1.1–1961	§ 1910.213
1910.261(e)(9)	B15.1–1953	§ 1910.219
1910.261(g)(15)(vi)	Z4.1–1968	§ 1910.141
1910.261(h)(2)(iii)	K13.1–1967	§ 1910.134
	Z88.2–1967	
1910.261(j)(1)(iv)	B15.1–1958	§ 1910.219
1910.261(j)(3)	A12.1–1967	§ 1910.23
1910.261(j)(4)(ii)	A12.1–1967	§ 1910.23
1910.261(j)(5)(iv)	B15.1–1953	§ 1910.219
1910.261(j)(6)(ii)	B15.1–1953	§ 1910.219
1910.261(k)(2)(i)	B15.1–1953	§ 1910.219
1910.261(k)(4)	A12.1–1967	§ 1910.23
1910.261(m)(2)	B56.1–1969	§ 1910.178
1910.261(m)(4)	Z87.1–1968	§ 1910.133
1910.261(m)(5)(i)	Z87.1–1968	§ 1910.132
1910.261(m)(5)(ii)	B56.1–1969	§ 1910.178

Similarly, OSHA believes that the OSHA standard, § 1910.95, Occupational Noise Exposure, provides worker protection that is at least equivalent to that provided by the ANSI standard, Z24.22–1957, Method of Measurement of Real-Ear Attenuation of Ear Protectors, that is referenced in § 1910.261(a)(3)(xxii). OSHA, therefore, proposed removing § 1910.261(a)(3)(xxii) to eliminate this duplicate coverage.

Paragraph (b)(5) of § 1910.261 requires workers in the pulp, paper and paperboard industry who enter closed vessels, tanks, chip bins, and similar equipment to follow specific procedures and wear personal protective equipment. This standard, however, does not provide the necessary requirements for monitoring, testing, and communication that are critical when working in a confined space.

OSHA proposed deleting paragraph (b)(5) of § 1910.261 for two reasons. First, § 1910.146, Permit-Required Confined Spaces, provides better protection for workers required to work in a confined space. Section 1910.146 provides a comprehensive regulatory program within which employers can effectively protect employees working in confined spaces. This program addresses the ongoing need for monitoring, testing, and communication at these workplaces. Second, employers are required to comply with § 1910.146 when a specific industry standard does not completely address the known hazards of working in a confined space, a principle noted in paragraph (c)(2) of § 1910.5. This means that employers must already comply with § 1910.146 rather than paragraph (b)(5) of § 1910.261.

Paragraph (c)(2)(vii) of § 1910.261 requires employers to provide personal protective equipment to workers on a job basis. Since employers are required to comply with the general requirements for personal protective equipment in § 1910.132, OSHA proposed removing paragraph (c)(2)(vii) to eliminate this

duplication of requirements in a way that will not decrease worker protection.

Paragraphs (c)(6)(ii) and (c)(7)(ii) of § 1910.261 require employers to provide workers with personal protective equipment and ear protection when the noise level may be harmful. Since employers are required to comply with the general requirements for personal protective equipment in § 1910.132 and the general requirements for occupational noise exposure in § 1910.95, OSHA proposed removing paragraphs (c)(6)(ii) and (c)(7)(ii) to eliminate this duplication of requirements.

Paragraphs (g)(1)(iv) and (k)(16) of § 1910.261 are specific electrical standards prescribed for the pulp, paper, and paperboard industry that require compliance with subpart S, Electrical, in OSHA's standards. Since all of general industry is required to comply with all of subpart S for electrical standards, OSHA proposed removing paragraphs (g)(1)(iv) and (k)(16) of § 1910.261 to eliminate this duplication.

Paragraph (g)(2)(i) of § 1910.261 requires employers to provide gas masks to employees working in the acid department. Since employers are required to comply with the general requirements for respiratory protection in § 1910.134, OSHA proposed removing paragraph (g)(2)(i) to eliminate this regulatory duplication.

Paragraph (g)(15)(iv) of § 1910.261 is a standard prescribed for the pulp, paper, and paperboard industry that addresses lead dust exposure and requires compliance with § 1910.1000, Air Contaminants. Since employers are required to comply with all of § 1910.1000, including paragraph 1910.1025 which addresses lead exposure, OSHA proposed removing paragraph (g)(15)(iv) to eliminate this duplication.

All of the proposed changes to § 1910.261 adopted by this notice were supported by two commenters, American Forest & Paper Association (AFPA) and the Pacific Coast Association of Pulp and Paper Manufacturers (PCAP&PM) (Exs.4–15, 4–24). The AFPA stated that ''AFPA wishes to commend OSHA for the substantial efforts which the Agency has made to remove or revise standards that are obsolete, duplicative, unnecessary, or inconsistent for maintaining employee protection''. There were no comments opposing these changes and OSHA is therefore removing the paragraphs listed above and shown on the table from § 1910.261, for the reasons stated above and given in the proposal.

AFPA also recommended that OSHA delete a number of other provisions. OSHA believes these suggestions require additional study and there needs to be more extensive opportunity for comment on them. Rather than holding up the deregulatory changes in this document, OSHA will consider including those suggestions in its next proposal to eliminate unneeded provisions.

J. Textiles (§ 1910.262)

For the purpose of eliminating duplicate standards coverage, OSHA proposed to delete a number of standards in § 1910.262 that reference general occupational safety and health standards. The following table lists the standards OSHA proposed to delete. The referenced general OSHA standards will continue to apply to employers in the Textile industry.

Deleted standard	Referenced OSHA standard
1910.262(c)(3)	1910.219
1910.262(c)(4)	1910.141
1910.262(gg)	1910.219
1910.262(ll)(1)	1910.23
1910.262(qq)(1)	1910.132; 1910.133; 1910.134
1910.262(qq)(2)	1910.134
1910.262(rr)	1910.1000; 1910.94(d)

No comments were received on this issue, and OSHA is therefore deleting the standards listed in the table above.

Paragraph (c)(8) of § 1910.262 requires employers to identify physical hazards in accordance with the requirements of § 1910.144. Section 1910.144 provides guidance on the colors to use to mark physical hazards. As noted earlier in Section F of this preamble, OSHA has decided to retain this provision to indicate that proper color coding is necessary for worker protection in emergencies. Because OSHA is retaining § 1910.144, which is referenced in § 1910.262(c)(8), OSHA will also retain § 1910.262(c)(8).

No comments were received on this issue, and OSHA is therefore retaining § 1910.262(c)(8).

K. Sawmills (§ 1910.265)

Section 1910.265 contains safety requirements for sawmill operations including, but not limited to, log and lumber handling, sawing, trimming, and planing; waste disposal; dry kiln operation; finishing; shipping; storage; yard and yard equipment; and for power tools and related equipment used in connection with such operations. Certain paragraphs of § 1910.265 incorporate and apply general occupational safety and health standards that apply to all employment covered by 29 CFR part 1910. As required in paragraph (a)(2) of this section, such standards apply to sawmill operations in accordance with the rules of construction set forth in § 1910.5. For example, the general standard regarding mechanical power-transmission apparatus in § 1910.219 is applicable to employment in sawmill operations covered in § 1910.265, but it is also incorporated by reference in paragraph (c)(22) of § 1910.265. OSHA believes that this repetition does not enhance worker safety, and therefore proposed removing paragraph (c)(22) of § 1910.265. Also, since § 1910.5 applies to all industries, including the sawmill industry, OSHA proposed removing paragraph (a)(2) of § 1910.265, which merely references § 1910.5.

Similarly, to eliminate duplicate standards coverage, OSHA proposed deleting various provisions currently found in § 1910.265 that reference general occupational safety and health standards. The following table lists the standards OSHA proposed deleting and the referenced general OSHA standards that will continue to apply to sawmills.

Deleted standard	Referenced OSHA standard
1910.265(c)(3)(i)	1910.23
1910.265(c)(10)	1910.25–27
1910.265(c)(14)	1910.110
1910.265(c)(16)	1910.106
1910.265(c)(17)(i)	1910.1000
1910.265(c)(17)(ii)	Subpart I
1910.265(c)(17)(iii)	1910.94(d)
1910.265(c)(22)	1910.219
1910.265(c)(26)(i)	1910.219
1910.265(c)(30)(vi)	1910.219
1910.265(c)(30)(x)	1910.178
1910.265(e)(3)(ii)(d)	1910.219
1910.265(f)(9)	1910.219
1910.265(g)	Subpart I
1910.265(h)	1910.141
1910.265(i)	Subpart L

Paragraph (c)(11) of § 1910.265 requires employers to mark physical hazards as specified in § 1910.144. Section 1910.144 provides guidance on the colors to use to mark physical hazards. As noted earlier in Section F of this preamble, OSHA is retaining § 1910.144 since the Agency believes that proper color coding is necessary for worker protection in emergencies. Since OSHA is retaining § 1910.144, which is referenced in § 1910.265(c)(11), OSHA will also retain § 1910.265(c)(11).

Paragraph (c)(24)(iv)(a) of § 1910.265 requires employers to inspect slings daily when in use, and to remove a sling from service if it is found to be defective. In addition, paragraph

(c)(24)(iv)(c) of § 1910.265 requires employers to provide suitable protection between the sling and the sharp unyielding surfaces of the load to be lifted. These provisions duplicate some of the general requirements for the use of slings in § 1910.184, which also includes provisions for sling inspection, removal, and protection. OSHA proposed deleting paragraphs (c)(24)(iv)(a) and (c)(24)(iv)(c) to eliminate the duplication of requirements for slings in § 1910.265.

The American Forest & Paper Association (AFPA) (Ex. 4–15) supported the changes to the provisions in Section 1910.265 that had been proposed by OSHA and that are now made final by this notice. There were no comments opposing these changes, and OSHA is therefore deleting the standards as proposed. The AFPA (Ex. 4–15) also suggested several other changes. OSHA concluded that they need further study, and rather than delaying this final rule, OSHA will consider including them in the next proposal to eliminate unnecessary provisions.

L. Agricultural Operations (§ 1910.267)

Section 1910.267 previously contained part 1910 requirements applicable to agricultural operations. These requirements were moved to § 1928.21 in 1975 (40 FR 18268). Since that time, § 1910.267 has been used simply to refer employers to § 1928.21 to locate these requirements. OSHA believes that § 1910.267 is now unnecessary and proposed removing and reserving this section.

No comments were received on this issue, and OSHA is therefore removing § 1910.267 and reserving this section.

M. Vinyl Chloride (§ 1910.1017)

OSHA proposed deleting paragraphs (g)(5) (i) and (ii) of § 1910.1017, vinyl chloride, which was promulgated in 1974. These paragraphs addressed entry into unknown and hazardous vinyl-chloride atmospheres. Paragraph (g)(5)(i) allows entry into unknown concentrations of vinyl chloride or concentrations greater than 36,000 ppm (lower explosive limit) only for purposes of life rescue. Paragraph (g)(5)(ii) allows entry into concentrations of vinyl chloride of less than 36,000 ppm, but greater than 3,600 ppm, only for purposes of life rescue, firefighting, or securing equipment that will prevent a greater release of vinyl chloride.

In 1989, OSHA promulgated industry-wide provisions addressing emergency response with respect to entry into unknown or hazardous atmospheres under § 1910.120, the Hazardous Waste Operations and Emergency Response (HAZWOPER) standard (54 FR 9317, Mar. 6, 1989). Included in the scope of the HAZWOPER standard are requirements for ''Emergency response operations for release of, or substantial threats of release of, hazardous substances without regard to the location of the hazard.'' Thus, vinyl chloride, which is a ''hazardous substance'' as defined under the HAZWOPER standard, is covered by the emergency response provisions in both the vinyl chloride and HAZWOPER rules. With regard to overlapping provisions, the HAZWOPER standard specifically states in paragraph (a)(2)(i) that ''If there is a conflict or overlap [between emergency-response provisions in § 1910.120 and provisions in substance-specific standards], the provisions more protective of employee safety and health shall apply. * * *''

At the time it proposed to revoke the vinyl chloride provisions, OSHA believed that the emergency-response provisions in § 1910.120 were more protective overall than the relevant provisions in the vinyl chloride standard. Further, the provisions of § 1910.120, which require employers to develop a broad program to respond appropriately to any potential emergency situation, were viewed by the Agency as giving employers more flexibility to tailor and implement effective, comprehensive emergency-response programs to suit their needs. Key provisions in § 1910.120(q) that would apply where there is a potential emergency associated with the release of vinyl chloride address the following: development and implementation of an emergency response plan, paragraph (q)(1); required elements of the emergency response plan, paragraph (q)(2); procedures for handling emergency response, paragraph (q)(3); using skilled support personnel, paragraph (q)(4); using specialist employees, paragraph (q)(5); training emergency personnel, paragraphs (q) (6), (7), and (8); medical surveillance and consultation for emergency-response personnel, paragraph (q)(9); using chemical protective clothing, paragraph (q)(10); and procedures for post-emergency operations, paragraph (q)(11).

OSHA continues to believe that deleting § 1910.1017(g)(5) (i) and (ii) in favor of § 1910.120 will not result in an increased risk to the safety or health of employees engaged in vinyl chloride emergency response operations. The Agency solicited comment on the question of the sufficiency of § 1910.120 to address the protection of vinyl chloride emergency response employees, if the emergency response provisions currently in the vinyl chloride standard were deleted.

Comments were received which fully supported the proposed action. The Vinyl Institute (Ex. 4–11) commented as follows:

> In the event of a vinyl chloride incident during transportation, storage, or manufacture, it is necessary to respond quickly to stop or minimize any release and prevent the situation from escalating. Because of the quantity of material that potentially could be involved, such an incident or leak, if not quickly corrected, could create a cloud of explosive gas within a relatively short time. The emergency response provisions contained in the Hazardous Waste Operations and Emergency Response (HAZWOPER) standard would enable the emergency responders to appropriately respond to the incident. In contrast, the vinyl chloride standard can be interpreted to prevent action if the exposure concentration is unknown or if it is expected to exceed 36,000 ppm and life rescue is not necessary.
>
> Following good emergency response practices and acting consistently with the HAZWOPER standard should produce the optimum results while protecting the life and safety of employees and other potentially exposed individuals. In addition, eliminating the emergency response provisions of the vinyl chloride standard clarifies which standard should govern in the event of such an emergency incident.
>
> OSHA's proposal to delete two specific emergency response provisions in the vinyl chloride standard and rely on the emergency response provisions in HAZWOPER will result in optimal responsive action. The HAZWOPER standard is flexible enough to allow responders and companies to develop comprehensive emergency response programs that can be adapted to the particular factual circumstances of a vinyl chloride incident.

The Vinyl Chloride Panel Transportation Committee of the Chemical Manufacturers Association (Ex. 4–12A) commented that:

> The Committee agrees with OSHA's proposal, and believes that the emergency response criteria in the HAZWOPER standard are more appropriate than the relevant provisions of the current vinyl chloride standard. HAZWOPER recognizes that entry into an unknown concentration or a confined space may be necessary for reasons other than life rescue, in order to avoid catastrophic human or environmental threats. Unlike the current vinyl chloride standard, the HAZWOPER provisions are flexible enough to allow responders and companies to develop comprehensive emergency response programs that suit their individual needs.

OSHA received no comments objecting to this proposed action.

Based on the reasoning set forth in the Notice of Proposed Rulemaking (NPRM)

(61 FR 37849, July 22, 1996), the discussion of the issues in this notice, and on supporting comments submitted to the record, OSHA has determined that deleting paragraphs (g)(5) (i) and (ii) from the vinyl chloride standard (29 CFR 1910.1017) is appropriate, and this final rule accomplishes that action.

N. Inorganic Arsenic (§ 1910.1018) and Coke Oven Emissions (§ 1910.1029)

OSHA proposed to revise the existing medical surveillance requirements in paragraph (n) of 29 CFR 1910.1018 that address inorganic arsenic and paragraph (j) of 29 CFR 1910.1029 that address coke oven emissions exposure with respect to sputum-cytology examinations and chest x-rays.

Those changes are being made in accordance with Section 6(b)(7) of the OSH Act which provides that ''The Secretary, in consultation with the Secretary of Health, Education and Welfare, may by rule promulgated pursuant to Section 553 of Title 5, United States Code, make appropriate modifications in the foregoing requirements relating to the use of labels or other forms of warning, monitoring or measuring, and medical examinations, as may be warranted by experience, information, or medical or technological developments acquired subsequent to the promulgation of the relevant standard''.

Specifically, OSHA proposed to delete the requirement in paragraph (n)(2)(ii)(C) of § 1910.1018 (the inorganic arsenic standard) that provides for sputum-cytology examination, as well as the requirement in paragraph (j)(2)(vii) of § 1910.1029 (The coke oven emission standard) that provides for sputum-cytology examination. Sputum-cytology examinations were originally included in the medical surveillance programs for inorganic arsenic and coke oven workers based on OSHA's belief that such examinations were useful in lung cancer screening. Subsequent studies indicate that sputum-cytology does not improve survival.

OSHA also proposed to revise the requirement in paragraph (n)(3)(ii) of § 1910.1018 of the inorganic arsenic standard that provided for a semi-annual chest x-ray for employees who are 45 years of age or older or who have 10 or more years of arsenic exposure over the action level. OSHA also proposed to change the required frequency of chest x-rays for these employees from semi-annual to annual. Likewise, OSHA proposed to amend the requirement in § 1910.1029, paragraph (j)(3)(ii) of the coke oven emissions standard, which provides for a semi-annual chest x-ray for employees 45 years of age or older or with 5 or more years of employment in a regulated area. OSHA proposed to amend the coke oven standard provision to require an annual chest x-ray in the medical surveillance program for the group of employees noted above. OSHA originally promulgated the provision for semi-annual x-rays in the belief that semi-annual examinations were appropriate for certain coke oven workers for lung cancer screening. Subsequent studies indicate that annual screening is equally effective.

The basis for OSHA's final determinations with respect to its proposed treatment of the relevant sputum-cytology provisions is given below, followed by a discussion addressing the relevant x-ray provisions.

Sputum-cytology. When OSHA issued its coke oven emission standard in 1976 and inorganic arsenic standard in 1978, it included sputum-cytology as a medical screening technique for lung cancer. Medical opinion at the time believed that this would improve lung cancer survival rates for those at higher risk, such as arsenic and coke oven emission exposed workers.

Two subsequent studies of persons at high risk of lung cancer did not indicate any improved survival from sputum-cytology screening. Therefore, OSHA proposed to delete the requirements.

Two randomized controlled studies evaluated the benefits of sputum-cytology examinations as a screening tool for lung cancer in a high-risk group, male smokers 45 years of age and older. The two studies included the Johns Hopkins Lung Project [Ex. 1–3] and the Memorial Sloan-Kettering Lung Project [Ex. 1–4], both part of the National Cancer Institute Cooperative Early Lung Cancer Detection Program. Together, the studies included 20,427 male smokers. These men were assigned at random to a dual-screen group (in which subjects underwent an annual chest radiograph, and sputum-cytologic study every 4 months) or to a single-screen group (in which annual chest radiographic screening was performed).

For both studies, there were no significant survival differences between the dual-screen and single-screen groups in the total number of lung-cancer cases, the number of late-stage lung-cancer cases, the number of resectable lung cancers, five year (Sloan Kettering) and eight year (Johns Hopkins) survival rates and the number of lung-cancer deaths. Therefore, sputum-cytology did not add any benefit to a lung cancer screening program that already included annual chest x-rays. Other evaluations of the same studies, (Chest X-ray Screening Improves Outcome in Lung Cancer, A Reappraisal of Randomized Trials on Lung Cancer Screening) (Ex. 1–1), and (The National Cancer Institute Cooperative Early Lung Cancer Detection Program) (Ex. 1–2), reached the same conclusion.

There are no controlled studies on the impact of sputum-cytology directly on inorganic arsenic and coke oven emission exposed workers. But inorganic arsenic and coke oven emission exposed workers are similar to the smokers studied in that both groups include older males that are placed at higher risk of lung cancer through inhalation.

The American Cancer Society's recommendations for early detection of cancer in asymptomatic persons do not include the use of sputum-cytology examinations [Ex. 1–7]. The Society's decision in this regard was based on the lack of epidemiological evidence that would support the use of sputum-cytology screening, and the risks and costs associated with false positive exams (Ex. 1–8).

OSHA solicited comments on these conclusions with respect to the value of sputum-cytology exams, and requested submission of other data and views that would support or dispute the Agency's proposed findings and conclusions.

OSHA received no comments objecting to this proposed action. Comments were submitted which support the Agency's proposal and conclusions with respect to the questionable value of sputum-cytology as a useful lung cancer screening technique (Exs. 4–2, 4–7, 4–17, 4–22, 4–27).

James Craner, MD, MPH, and a Board-Certified Occupational Medicine physician stated:

> I fully concur with the proposal to eliminate sputum cytology examinations for the reasons that OSHA has cited. In my experience, I have also found this test to be inaccurate with a significant false positive rate, particularly in smokers. The test is expensive for employers, uncomfortable for employees, and generates unacceptable costs and anxiety for all involved in chasing (false) positive results. [Ex. 4–17]

Newport News Shipbuilding's Director of Environmental Health and Safety (Ex. 4–27) commented that:

> In the 17 years since this regulation was established there has been considerable further experience with cytology and screening techniques in general. This experience and the scientific literature published since 1978 established that bronchial cytology is of no added value in the protection of industrial workers against the health hazards of arsenic.

An analysis of the NNS experience of bronchial cytology revealed that since inception of the program well over 1000 cytological examinations have been done. No case of dysplasia has been detected. This contrasts with the 16 per 1000 found in the Mayo lung project which used multiple screening techniques for cancer in high risk persons.

Also in support of OSHA's proposal, The American Iron and Steel Institute (AISI) commented that:

As OSHA points out, sputum cytology examinations were originally included in the [coke oven emissions] standard based on the belief that they ''were useful in screening for lung cancer.'' See 61 Fed. Reg. at 37855–56. Studies and information that have become available since the standard was promulgated show this belief to have been incorrect. Two large-scale studies (the Johns Hopkins and Sloan-Kettering Lung Projects) of male smokers 45 years of age or older (a high risk group) found that sputum cytology had no significant value as a screening tool for lung cancer when used in addition to annual x-ray screening. [Ex. 4–22]

AISI further indicated that:

Experience in the steel industry is consistent with the results of the Johns Hopkins and Sloan-Kettering Studies. From 1977 through 1990, the cytology laboratory at Shadyside Hospital in Pittsburgh, PA, performed almost 71,000 sputum cytology examinations of coke oven workers from various steel companies. Only two definite malignancies were detected in all of these examinations, for a detection rate of 0.000028 [Ex. 4–22]

Based on their experience, AISI asserts that ''* * * sputum cytology has not been of any more benefit in terms of lung cancer screening under the Coke Oven Emissions Standard than it was in the Johns Hopkins and Sloan-Kettering studies.'' (Ex. 4–22)

The studies indicate the sputum-cytology screening does not appear to improve survival rates of groups at higher risk of lung cancer beyond that which would be accomplished through annual chest x-rays. Arsenic and coke-oven emission exposed workers fit in this category. The commenters support this analysis and have provided additional data which tends to support these conclusions. Since the studies and analysis do not indicate survival benefits, OSHA is deleting the requirements for sputum-cytology in the inorganic arsenic and coke oven emission standards as proposed.

X-Rays. As noted above, OSHA proposed to revise the requirements in the inorganic arsenic and coke oven standards for chest x-rays from semi-annual to annual for higher risk workers covered by those standards. The basis for the proposal was studies that indicate that semi-annual x-rays did not improve lung cancer survival rates over annual x-rays.

This evidence continues to show that employees at a higher risk of lung cancer from exposures to inorganic arsenic and coke oven emissions profit from a medical surveillance program, including annual chest x-rays, for the early detection of lung cancer.

As discussed in the Notice of Proposed Rulemaking (NPRM), two recent randomized controlled studies were conducted on a group at high risk for developing lung cancer (namely, male smokers 45 years of age or older), and were evaluated with respect to the utility of periodic x-rays. These studies, which included the Mayo Lung Project [Ex. 1–9] and the Czechoslovak Study [Ex. 1–10], were designed specifically to assess the efficacy of chest x-rays in detecting early-stage lung cancer among the members of this group. The studies compared a number of outcomes between experimental groups that were assessed using chest x-rays administered at periodic intervals (4 months in the Mayo Lung Project and 6 months in the Czechoslovak Study) and control groups receiving less infrequent or, in some cases, no chest x-rays. (Participants in both the experimental and control groups were administered chest x-rays at the beginning of each study to ensure that they had no detectable lung tumors that would bias the research outcomes.)

These studies (Exs. 1–9, 1–10) found that periodic chest x-rays led to enhanced detection of early-stage lung cancer and, consequently, higher rates of resectability for this cancer. As demonstrated by a subsequent analysis of these studies (Lung Cancer Detection, Results of Randomized Prospective Study in Czechoslovakia) (Ex. 1–11), lung-cancer-specific survival based on fatality rate (i.e., number of deaths per diagnosed cases) improved significantly. This analysis also showed that the lower fatality rate among the experimental groups was not the result of over diagnosis for lung cancer or lead-time bias. For the Mayo Lung Project and the Czechoslovak Study, respectively, fatality rates of persons diagnosed with lung cancer were found to be 59% and 78% in the experimental groups, and 72% and 95% in the control group.

The efficacy of chest x-rays was also demonstrated by analyzing the outcomes for the few experimental group participants who did not undergo surgery when diagnosed with early-stage lung cancer, either because they refused surgery or surgery was contraindicated. This analysis was part of the research described in Exhibit 1–11, which combined the outcomes for experimental group participants in the Mayo Lung Project with similar experimental group participants from two other groups (the Memorial Sloan-Kettering Project and the Johns Hopkins Lung Project). The 5 year fatality rate for the nonsurgery participants was about 90 percent, compared with a 30-percent fatality rate for those participants who underwent cancer surgery. This comparison provides strong support for the efficacy of chest x-rays in detecting early-stage lung cancer and enhancing the survival of those participants who undergo subsequent surgery for removal of a detected tumor. Additionally, this comparison indicates that over-diagnosis and lead-time biases did not contribute significantly to the fatality-rate differences obtained between the experimental and control groups in the Mayo Lung Project and Czechoslovak Study.

Based on this discussion, OSHA concludes that employees exposed to inorganic arsenic and coke oven emissions continue to need medical surveillance to detect lung cancer, and that periodic chest x-rays are a necessary part of the medical surveillance to improve detection and survival from lung cancer. OSHA proposed reducing the frequency of chest x-rays from semi-annually to annually for older persons with higher risk exposures.

This frequency is based, in part, on an analysis described in Exhibit 1–11 showing that the 5-year fatality rate (about 30–35 percent) for persons diagnosed with lung cancer was the same for the experimental-group participants in the Mayo Lung Project, which administered chest x-rays every 4 months, and the experimental-group participants in the Memorial Sloan-Kettering Project and Johns Hopkins Lung Project, which performed chest x-rays once a year. [See also Exs. 1–12 and 1–13] This analysis demonstrates that fatality rates did not differ in any practical or statistically significant fashion across these three major studies. Frequent chest x-rays very slightly increase cancer rates from radiation and therefore should not be given more frequently than necessary from a health perspective.

In summary, large randomized controlled studies demonstrate that semi-annual chest radiography screenings show no benefit over annual screenings. The studies also demonstrate that annual chest radiography screening of high-risk individuals, including workers exposed to inorganic arsenic and coke oven emissions results in earlier detection of lung cancer and improved survival.

Several commenters (Exs. 4–17, 4–22) suggested that intervals between x-rays

for high-risk workers could be longer than 1 year; however, the Agency is aware of no data to demonstrate with reasonable confidence what longer interval, if any, would not reduce survival rates. In addition, no such data were received by OSHA in response to the proposal. OSHA therefore concludes that an annual x-ray provision is reasonable for the reasons set forth in the proposal and this final notice. Moreover, if the Agency has erred in this instance, it has done so on the side of over-protection rather than under-protection, as sanctioned by the U.S. Supreme Court in Industrial Union Department v. American Petroleum Institute, 448 U.S. 607 (1980).

OSHA solicited comments and data in the proposal to reduce the frequency of chest x-rays from semi-annual to annual for certain workers exposed to inorganic arsenic and coke oven emissions. OSHA received no comments objecting to this proposed action. Comment was received supporting the proposal (Exs. 4–7, 4–17, 4–22, 4–27).

AISI commented that:

* * * the requirement for semiannual x-rays originally was included in the Coke Oven Emissions Standard ''in the belief that semiannual examinations were valid for screening for lung cancer.'' *See* 61 Fed. Reg. At 37856/2. Since then, the results of several large randomized control studies have become available. These studies, the Mayo Lung Project and Czechoslovak Study, indicate that periodic chest x-rays do lead to enhanced detection of early-stage lung cancer. *See* 61 Fed. Reg. At 37856/3. However, when the results of the Mayo Lung Project (where chest x-rays were taken every four months) were compared to the results of the Johns Hopkins and Sloan-Kettering studies described above (where chest x-rays were taken only once a year), it was found that the fatality rates ''did not differ in any practical or statistically-significant fashion across these three major studies.'' See 61 Fed. Reg. At 37856/1.

What this demonstrates, as OSHA correctly points out, is that ''semiannual chest radiography screenings show no benefit over annual screenings.'' *Id.* That being the case, OSHA clearly is justified in finding that ''an annual chest x-ray satisfies the purpose of the medical surveillance program required under the standard.'' *See* 61 Fed. Reg. At 37856/1. A contrary conclusion not only would impose unjustified burdens on coke oven employers, it also would continue to expose coke oven employees to an increased risk of cancer associated with the performance of unnecessary diagnostic x-rays. For that reason, the Energy Technology Committee of the American College of Occupational and Environmental Medicine has cautioned against the routine administration of chest x-rays and stated that for individuals at increased risk of lung disease or cancer, such as persons exposed to pulmonary irritants or carcinogens, ''a chest x-ray every 12–24 months may be justified.'' (See American College of Occupational and Environmental Medicine Guidelines for Use of Routine X-Ray Examinations in Occupational Medicine; ACOEM Membership Directory 1995/1996: Addendum at 517.)

The semiannual chest x-rays currently required under the standard do not provide a significant benefit over annual chest x-ray screening in terms of early lung cancer detection...Chest x-rays under the Coke Oven Emissions Standard should, therefore, be required no more often than annually.'' (Ex. 4–22)

With respect to the arsenic standard, James Craner, MD, MPH stated that ''* * * I agree with the proposal to reduce the frequency of chest x-ray examinations' (Ex. 4–17).

In summary, available data do not indicate that semi-annual x-rays provide additional protection than do annual x-rays in improving the detection of and survival from lung cancer for higher risk persons. The record strongly supports this analysis and OSHA's proposal to reduce the x-ray frequencies from semi-annual to annual for certain workers exposed to inorganic arsenic and coke oven emission. OSHA concludes that this final action will not reduce the health of affected workers and accordingly finalizes the changes proposed.

Amendments to Part 1910 That Received Varied Comments

O. Explosives and blasting agents (§ 1910.109)

In 1978 OSHA published a final rule (43 FR 49726) which revoked certain requirements that were called ''nuisance standards'' because they did not deal directly with workplace safety and health or were within the jurisdiction of some other regulatory agency. Among the requirements revoked were the three columns of Table H–21 (American Table of Distances for Storage of Explosives)(ATD)that specified minimum distances between explosive storage magazines and inhabited buildings, passenger railways, and public highways because they dealt with public and property protection and not employee protection.

Paragraph (c)(1)(vi) of § 1910.109 was inadvertently overlooked during the 1978 rulemaking and still makes reference to the three columns of Table H–21 which were revoked. Therefore, OSHA proposed to delete the phrase in paragraph (c)(1)(vi) which made reference to these three revoked columns. OSHA also proposed to delete the word ''manufacture'' from footnote number 5 of Table H–21 to clarify that the Table applies only to the storage of explosives in magazines.

In response to the proposal, the Institute of Makers of Explosives (IME) objected to OSHA making changes to Table H-21, which is a revised version of the American Table of Distances (ATD) that is published by the IME. The IME (Ex. 4–10) asserted that the portion of the ATD published as Table H–21 comes from an outdated version of the ATD; 1991 is the current publication date for the ATD. This commenter also stated that Table H–21 only provides the distances applicable to barricaded magazines, and that OSHA fails to provide the unbarricaded distances, which are significantly greater, and which are necessary to fully protect on-site workers.

In expressing its concern, the IME (Ex. 4–10, pg.2) stated:

The ATD, in its entirety, provides anyone storing explosives with all of the key parameters for maintaining sufficient distances between magazines and buildings on-site, as well as between on-site magazines and inhabited buildings, passenger railways, and public highways. IME is adamant that an understanding of, and adherence to, all of the distances is necessary to maintain the safety of every explosives manufacturing and storage site. IME thus requires that those who use the copyright protected ATD must publish the entire ATD, with all its footnotes and columns, verbatim. In the interest of promoting overall safety, the IME suggests that OSHA publish the entire ATD.

OSHA is appreciative of the comment expressed by IME; however, after a careful evaluation of this issue, OSHA has concluded that IME's suggestion to publish the entire ATD will require additional study. In addition, the public, and specifically the user community has not had notice or an opportunity to comment on this suggestion. Therefore, more extensive opportunity is needed for public comment to be expressed on this issue. Rather than holding up the deregulatory changes in this document, OSHA will consider this suggestion in its next proposal on technical amendments to the OSHA standards. However OSHA will make the minor corrections proposed so the existing language will be consistent and correct.

P. Medical Services and First Aid (§ 1910.151)

Section 1910.151 states the employer's obligation to have medical services available to provide advice on workplace health matters, and for use by employees if needed.

Paragraph (b), in particular, requires the availability of first aid services for workplaces that do not have medical providers nearby. This paragraph also requires that employers have on hand first aid supplies approved by the consulting physician.

OSHA proposed amending § 1910.151(b) so that the approval of first aid supplies by the consulting physician is no longer required, although the standard would continue to require that adequate supplies be available. Commercial first aid kits that meet the needs of most employers and most work sites are readily available. If the workplace had unusual hazards or posed special problems that would require modifying a commercial first aid kit or developing a specialized kit, the Agency expected the employer to provide those special items. An employer who was unsure whether a commercially available kit was sufficient could seek professional advice. Such advice, however, would not have been required by OSHA as a matter of course.

Two commenters, Occupational Health Network and Gundersen Clinic Ltd. (Exs. 4–18, 4–23) opposed this amendment. One of the commenters (Ex. 4–23) said:

> While indeed commercial first aid kits are readily available and often meet the needs of many employers and many work sites, such first aid kits have been available for many years. We find that employers need improved first aid attention and protocols for use of specific first aid supplies that are in tune with the types of problems identified on their incident reports and OSHA 200 logs.

American Pulpwood Association, Inc., Southwestern Bell Telephone Company, Bell Atlantic, and Nynex (Ex. 4–5, 4–6, 4–19, 4–20, respectively) urged OSHA to adopt the proposed amendment. For example, Southwestern Bell Telephone Company said:

> Southwestern Bell Telephone Company provides employees' vehicles and work locations with the most up-to-date and well-stocked first aid kits available. We continually monitor their use and revise the kits accordingly.

Nynex stated:

> The wide variety of commercially available first aid kits have proven to be adequate for occupational settings.

After a review of the comments, OSHA concludes that workers will continue to be well protected after the change. Employers still must provide adequate first aid supplies for their workplace and can be cited if they fail to do so. As discussed below, there are many sources of information on appropriate supplies such as that provided by the American National Standards Institute (ANSI) and the American Society For Testing and Materials (ASTM). The employer may also consult with appropriate medical professionals, emergency rooms, and local fire/rescue departments if the employer prefers. If there are unique hazards in the employer's workplace, the requirement for providing adequate first aid supplies means that the employer must provide adequate supplies for those professionals who would determine what additional supplies are needed. Accordingly, OSHA is adopting the proposed amendment to § 1910.151(b).

Since some employers may find it useful to refer to a list of basic first aid supplies, OSHA is providing a reference to this information in a new non-mandatory Appendix A to § 1910.151. The Appendix refers to ANSI standard ANSI Z308.1–1978, ''Minimum Requirements for Industrial Unit-type First-aid Kits.'' OSHA is aware that ANSI Z308.1 is currently under revision. When ANSI issues its revision to the Z308.1 standard, OSHA may revise Appendix A to reference the revised ANSI standard, if the Agency determines that the new edition is as effective as the earlier edition. In addition, at that time OSHA will consider adding other consensus standards on first aid kits as references in the Appendix.

In providing references to applicable voluntary consensus standards, OSHA is complying with Section 12(d)(1) of the National Technology Transfer Act of 1995 (P.L. 104–113) which states that all Federal agencies shall use applicable technical standards that are developed by voluntary consensus standards bodies as a means to carry out their policy objectives or activities.

Q. Telecommunications (§ 1910.268)

Paragraph (f) of existing § 1910.268 contains requirements for rubber insulating equipment (gloves and blankets) used at telecommunications centers and field installations. In the notice of proposed rulemaking, OSHA presented several reasons why it believed that § 1910.268(f) was unnecessary. First, the general industry standard found at 29 CFR 1910.137, Electrical Protective Equipment, addresses all rubber insulating equipment, and removing § 1910.268(f) would eliminate this duplication of standards and the associated compliance problems. Second, § 1910.137 provides more comprehensive employee protection, since it covers requirements for manufacture and marking, electrical proof tests, test and maximum use voltages, test intervals, workmanship, and in-service care and use. Third, § 1910.137 is written in performance language that provides employers with flexibility in meeting the standard. Thus, OSHA believed that paragraph (f) of § 1910.268 could be removed without diminishing employee safety and health.

OSHA received seven comments from the telecommunications industry objecting to the proposed removal of this paragraph (Exs. 4–4, 4–6, 4–8, 4–9, 4–14, 4–19, 4–20). These commenters argued that applying § 1910.137 to their rubber gloves would increase the frequency with which the gloves had to be tested from every 9 months under § 1910.268(f) to every 6 months under § 1910.137. The commenters stated that this would increase the cost of testing rubber gloves without a commensurate increase in safety. Mr. James M. Degen of NYNEX (Ex. 4–20) worded the industry's arguments as follows:

> NYNEX does not agree, however, with OSHA's proposal to revoke the requirements for rubber insulating equipment used at telecommunications centers and field installations [29 CFR 1910.268(f)] . . . Specifically, 1910.268(f) requires the electrical testing of rubber insulating gloves on a nine month interval, while 1910.137 requires that these tests be conducted on a six month interval. NYNEX finds that the test interval in 1910.268(f) is adequate for the telecommunications industry and should be maintained for the following reasons:
>
> 1. In contrast to the electric utility industry, telecommunications workers do not work with or otherwise handle live electric lines. Rubber insulating gloves are used as a precautionary measure against an unintentional contact with energized conductors or equipment.
>
> 2. The national consensus standard that is referenced as a source of the requirements of 1910.137, ASTM F496–93b, Standard Specification for In-Service Care of Insulating Gloves and Sleeves, recognizes this difference between the electric utility industry and telecommunications in paragraph 7.3, which states:
>
> ''Industries, such as telecommunications, that utilize insulating gloves as precautionary protection against unintentional contact with energized conductors, may increase the maximum interval between issue and retest to nine months.''
>
> 3. NYNEX has not experienced any work-related injuries or fatalities as a result of the failure of rubber insulating gloves.
>
> 4. Finally, shortening the retest interval from nine months to six months would result in a fifty percent increase of direct costs to NYNEX amounting to $165,000 per year, as well as a fifty percent increase of indirect costs attributed to the administrative and lost productive time associated with exchanging, testing and reissuing of insulating gloves. These increased costs to NYNEX, as well as the rest of the telecommunications industry, will not result in any demonstrable improvement in employee safety.

OSHA agrees with this commenter's rationale. Paragraph (f)(5) of § 1910.268 reads as follows:

> (5) The employer is responsible for the periodic retesting of all insulating gloves,

blankets, and other rubber insulating equipment. This retesting shall be electrical, visual and mechanical. The following maximum retesting intervals shall apply:

Gloves, blankets, and other insulating equipment	Natural rubber	Synthetic rubber
	Months	
New	12	18
Re-issued	9	15

By contrast, Table I–6 in § 1910.137 sets intervals for testing rubber insulating equipment that differ from the intervals for such equipment in the telecommunications. Table I–6 requires rubber blankets to be tested before first use and every 12 months thereafter. It requires rubber insulating gloves to be tested before first use and every 6 months thereafter. No distinction is made between natural and synthetic rubber.

As noted by the commenters, removing § 1910.268(f) in its entirety would effectively increase the amount of testing performed by telecommunications employers on rubber gloves.[1] This would consequently increase the industry's testing costs.

Employees performing telecommunications work wear rubber insulating gloves to protect them against accidental contact with energized parts. These employees use specific work practices required in § 1910.268, including maintaining minimum approach distances from energized parts, to protect them against electric shock hazards. The gloves provide secondary protection in case the work practices are not followed. This contrasts with the way rubber insulating gloves are used for other types of electrical work, such as electric power transmission and distribution work. In this type of work, employees wearing rubber insulating gloves handle energized conductors directly, and the gloves provide the primary form of protection for the worker.

All the commenters on this issue maintained that they had experienced no injuries as a result of the failure of rubber insulating gloves. For these reasons, OSHA has decided not to remove § 1910.268(f)(5).

[1] The testing intervals for synthetic rubber insulating blankets would also be shorter. However, the commenters did not object on that basis. Additionally, the national consensus standard for this equipment, American Society for Testing and Materials F479 Specification for In-Service Care of Insulating Blankets, which formed the basis for the test intervals in § 1910.137, provides a maximum interval of 12 months between tests, regardless of whether the rubber is natural or synthetic.

OSHA is also retaining paragraph (f)(6) of Section 1910.268 because of its connection with paragraph (f)(5). This paragraph requires that rubber gloves and blankets be marked to indicate compliance with the test schedule required under paragraph (f)(5) and that rubber gloves be destroyed if they fail the tests or if they are otherwise found to be defective.

OSHA continues to believe that the remaining provisions contained in existing § 1910.268(f) unnecessarily duplicate requirements in § 1910.137. None of the interested persons who commented on § 1910.268(f) presented reasons why any paragraphs other than § 1910.268 (f)(5) and (f)(6) should be retained. Therefore, the Agency is revising paragraph (f)(1), removing paragraphs (f)(2) through (f)(4) and (f)(7) through (f)(9) and redesignating paragraphs (f)(5) and (f)(6) as (f)(2) and (f)(3) of § 1910.268. Paragraph (f)(1) as revised explains that 1910.137 applies to telecommunications except for Table I–6.

Amendments to Part 1926 That Received No Comments or Positive Comments Only

A. Incorporation by reference (§ 1926.31)

This final rule amends § 1926.31 to clarify that only mandatory provisions of standards incorporated by reference are adopted as OSHA standards.

As stated in the proposal, based on its ongoing review of compliance and enforcement activities and recommendations from its Advisory Committee on Construction Safety and Health (ACCSH), OSHA is aware that difficulties have arisen regarding certain provisions of part 1926 that were adopted under section 6(a) of the Act. Many of the standards adopted under Section 6(a) were American National Standards Institute (ANSI) or National Fire Protection Association (NFPA) consensus standards which were incorporated by reference and contained advisory provisions (e.g., use the word ''should'' rather than ''shall'').

In the past, OSHA maintained that all standards, regardless of whether the term ''should'' or ''shall'' is used, created mandatory compliance responsibilities. Employers have consistently challenged this position on the basis that Section 6(a) of the Act only gave OSHA the authority to adopt ANSI standards verbatim. In ANSI standards, using the term ''should'' means that the provision is only advisory. Therefore, employers maintained that ANSI ''should'' standards could only be advisory when adopted or incorporated by reference by OSHA under Section 6(a).

OSHA's ability to enforce ''should'' standards has been denied by the Occupational Safety and Health Review Commission and by most of the appellate courts in which contested cases have been heard. For example, in *Marshall* v. *Pittsburgh-Des Moines Steel Company,* 584 F.2d 638, 643–44 (1978), the Third Circuit Court of Appeals determined that ''should'' standards were merely advisory because the consensus organization had reached ''substantial agreement'' that these provisions be viewed only as *recommendations,* and not as mandatory standards.

The courts have also ruled that failure to adopt an ANSI provision verbatim renders the resulting OSHA Section 6(a) provision invalid and unenforceable [see *Usery* v. *Kennecott Copper Corporation,* 577 F.2d 1113, 1117 (10th Cir. 1977)].

Although the ''should'' standards have not been enforceable in and of themselves, OSHA has used them to help demonstrate the existence of ''recognized hazards'' under the general duty clause [Section 5(a)(1)] of the Act. However, the Review Commission has ruled that, as long as the ''should'' provision remains in effect as an OSHA standard, OSHA may not issue a general duty clause citation for the hazard it addresses (see A. Prokosch & Sons Sheet Metal and Mid Hudson Automatic Sprinkler, 1980 CCH OSH ¶ 24,840).

In order to address these issues, the Agency is revising § 1926.31(a) to clarify that only the mandatory requirements of incorporated consensus standards are adopted as OSHA standards. The removal of the advisory provisions will also simplify and streamline the existing Part 1926 standards.

In 1984, OSHA conducted a rulemaking for 29 CFR part 1910 (General Industry Standards) that was similar to the one described above for the construction standards in part 1926. At that time, paragraph (a)(1) of § 1910.6 was revised to clarify that ''only the mandatory provisions * * * of standards incorporated by reference are adopted as standards under the Occupational Safety and Health Act'' (49 FR 5318).

In the present rule making, OSHA proposed to revise paragraph (a) of § 1926.31 to read the same as § 1910.6 by adding a sentence to existing § 1926.31(a) to read as follows: ''Only the mandatory provisions (i.e., provisions containing the word ''shall'' or other mandatory language) of standards incorporated by reference are adopted as standards under the

Occupational Safety and Health Act.'' No comments were received on the proposed revision, and this paragraph (§ 1926.31(a)) is therefore being revised as proposed.

B. Flammable and combustible liquids (§ 1926.152)

Paragraph (a)(1) of § 1926.152 requires employers to use a safety can, which is defined as a container with a capacity of 5 gallons or less that is equipped with a spring-closing lid and spout cover, a means to relieve internal pressure, and a flash arresting screen, for the storage, use, and handling of flammable and combustible liquids. As stated in the proposal, while approved metal safety cans are still acceptable, various nationally recognized testing laboratories have also approved the use of plastic safety cans for flammable liquids. The Agency has determined that Department of Transportation (DOT) approved containers of 5 gallon capacity or less that are not equipped with a spring closing lid, spout cover, and flash-arresting screen are also acceptable for the storage, use, and handling of flammable and combustible liquids because they sufficiently reduce the risk from fire, spills and explosions.

Furthermore, the Agency has determined that it is sufficient to require the use of the original container only for quantities of flammable liquids that are one gallon or less because that will adequately protect against the risk of fire and explosion. Where the original container is available, the employer may choose to use it instead of an approved safety can for quantities of one gallon or less. If the original container is not available, an approved safety can must be used.

One comment was received on the proposed revision to § 1926.152(a)(1), (Ex. 4–2). This commenter supported the proposed revision as written. Based on the reasons stated above, OSHA is revising § 1926.152(a)(1) as proposed.

C. Initiation of explosive charges—Electric blasting (§ 1926.906)

OSHA proposed revising paragraph (q) of § 1926.906 to allow the use of other types of specifically designed instruments, in addition to those equipped with silver chloride cells, when testing circuits to charged holes.

The general industry standard, § 1910.109(e)(4)(vii), Explosives and Blasting Agents, states that ''Blasters, when testing circuits to charged holes, shall use only blasting galvanometers designed for this purpose.'' The standard does not specifically require using silver chloride cells. In addition, the Mine Safety and Health Administration (MSHA) currently allows for the use of a blasting galvanometer or other instruments that are specifically designed for testing blasting circuits (30 CFR CH.1 § 56.6407). The revision of § 1926.906(q) will correct the inconsistency with the above mentioned standards.

One comment was received on the proposed revision to § 1926.906(q). This commenter (Ex. 4–10) substantially supported the proposed revision to § 1926.906(q). OSHA is therefore revising § 1926.906(q) as proposed.

Amendments to Part 1926 That Received Varied Comments

D. Medical services and first aid (§ 1926.50)

OSHA proposed revising paragraphs (d)(1) and (d)(2) of § 1926.50 to eliminate the requirement for physician approval of first aid supplies. As stated in the proposal, since first aid kits that are commercially available will meet the needs of most employers, it is unnecessary for most employers to have a physician approve the contents of a first aid kit. However, if the workplace has unusual hazards or special situations which would require modification of a commercial first aid kit, or the development of a specialized kit, the Agency expects that the employer will provide these special items. If the employer is unsure whether a commercially available kit is sufficient, professional advice should be obtained. Such advice, however, would not be required as a matter of course. The Agency believes that this change will allow the employer more flexibility in meeting the first aid requirements without affecting employee safety.

No comments were received on this proposed revision; however, nine comments were received addressing the proposal to revise the identical provision in the General Industry standard § 1910.151(b) (Exs. 4–5, 4–6, 4–18, 4–19, 4–20, 4–23, 4–26, 4–28 and 4–30). Those comments are discussed in the General Industry section above. In addition, as stated in the § 1910.151(b) discussion, OSHA is providing a reference for basic first aid supplies and their use in a new non-mandatory Appendix A to § 1910.151. In order to be consistent with the General Industry standards, and for the reasons stated in the discussion of the General Industry standard, this final rule revises § 1926.50 in the same manner as § 1910.151 with the addition of a non-mandatory Appendix A to § 1926.50.

Appendix A for § 1910.151 includes a statement that employers are to follow the provisions of § 1910.1030(d)(3) of the OSHA standard on occupational exposure to blood borne pathogens (56 FR 64175). As that standard is not applicable to employers in the construction industry, this statement is not repeated in Appendix A to § 1926.50. Additional First aid supplies (other than those referenced in Appendix A) may be necessary to address specific work hazards and prevalent injuries.

OSHA is revising Paragraph (f) of § 1926.50 to limit the requirement for posting the telephone numbers of physicians, hospitals or ambulances to those areas where the 911 emergency number is not available. OSHA believes that requiring all employers to post the numbers where the 911 emergency number is available could lead to confusion and might slow emergency response, and would place an unnecessary burden on the employers.

IV. Summary of the Final Economic Analysis Introduction

Based on the record of this rulemaking, this final rule eliminates a number of provisions in OSHA standards that are duplicative, unnecessary, or potentially in conflict with the rules of other Federal agencies. All of the changes OSHA is making are expected to benefit the regulated community by making the rules clearer, simple and easier to understand and apply. Quantifiable economic benefits can be estimated only for four of these changes, however.[2] By eliminating these ''problem provisions'' from its standards, this Standards Improvement rule will lessen the burden employers currently experience, and will, in turn, generate cost savings. No commenters disputed these findings, reported by OSHA in the Preliminary Economic Analysis that accompanied the proposed rule. The following paragraphs discuss the Final Economic Analysis in detail.

First Aid Kits

The final rule eliminates the requirements in § 1910.151(b) and § 1926.50(d)(1) that employers must have certain first aid supplies approved by a consulting physician before they are used. This requirement applied only in cases where no infirmary, clinic, or hospital was in close proximity to the worksite and the employer intended to treat first aid injuries at the site.

[2] For example, the Duke Power Company [Ex. 4–2] applauded OSHA's elimination of a provision (§ 1926.152) on storage cans for flammable and combustible liquids that conflicts with a DOT requirement on the same topic. Unfortunately, the Agency does not have sufficient data to estimate the apparent cost savings from this change.

Although the number of establishments meeting these criteria is not known, the Agency believes that its estimate of 10 percent of establishments is reasonable, and no commenter disagreed with this estimate. The provisions being eliminated did not specify how the physician was to provide this consultation, but OSHA assumed that, at most, five minutes of a physician's time, valued at $100/hr,[3] would be required to approve the contents of the first aid kit at these establishments. For purposes of this analysis, OSHA also assumed that the physician provided five minutes of his or her time at an hourly wage rate, i.e., at a cost of $8.33.

The analysis further assumed that the physician would need to approve the first aid supplies once every 10 years, after which time the development of new kinds of medical supplies and the possibility of new hazards at the worksite would make a new consultation necessary. The cost of five minutes of a physician's time annualized over 10 years is $1.19 per year.

The Agency estimates that approximately 6.4 million employers fall under OSHA jurisdiction and will be affected by this change [*County Business Patterns,* 1993]. Of these, 10% would be affected by the change; the annualized cost for employers to comply with these provisions in the past was approximately $761,600 ((6.4 million × 10%) × $1.19). By eliminating the requirement for a physician's approval of an establishment's first aid kit, OSHA will eliminate this burden.

Coke Oven Emissions

The final rule will eliminate the requirement at § 1910.1029(j) for employers to conduct semiannual sputum cytology tests and will reduce the frequency at which they must supply chest x-rays from twice a year to once a year for workers who are 45 years of age or older or who have five or more years of employment in areas defined by the standard as regulated areas. Regulated areas encompass the coke oven battery, including topside and its machinery, pushside and its machinery, cokeside and its machinery, and battery ends; the wharf; the screening station; and the beehive oven and its machinery.

The Inflationary Impact Statement developed by OSHA in support of the Coke Oven standard (§ 1910.1029), [*Inflationary Impact Statement: Coke Oven Emissions, 1976*] estimated total employment in coke ovens at 29,600 workers. The same analysis estimated that 75 percent of these employees worked in regulated areas. The *1992 Census of Manufacturers* (Industry Series) indicated total employment for SIC 33121 (Coke Oven and Blast Furnace Products) at 8,600 and total production person-hours at 15.7 million. A separate Census Industry Series count specific to coke ovens indicates a total of 11.2 million production person-hours, which constitutes approximately 71 percent of SIC 3312's productive person-hours, suggesting a current total number of 6,135 coke oven workers.

Assuming that the proportion of coke oven employees working in regulated areas has remained constant, approximately 4,600 coke oven employees currently work in regulated areas. Approximately 30 percent of the workforce in 1994 was over 45 years of age [BLS data presented in *Statistical Abstract of the United States, 1995,* p. 402]. Turnover rates in SIC 33, which includes coke ovens, are estimated at 5 percent annually [*National Occupational Exposure Survey: Analysis of Management Interview Responses, 1988*]. Thus, approximately 77 percent of the current regulated area workforce will have been exposed to coke oven emissions for five years or more.[4] Adjusting this percentage to reflect the assumption that 30 percent of employees are over 45 years of age yields an estimate of 84 percent[5] of coke oven employees (3,864 workers) potentially affected by the revocation or revision of these requirements.

Data for 1994 obtained from the Physician Payment Review Commission [E-mail from Christopher Hogan, PPRC, to Tom Mockler, OSHA] indicate that the average x-ray charge nationally is $54.40 and the average lab charge for cytological examination of bodily fluids is $51.90. (OSHA assumes that the additional average charge of $19.00 for sputum specimen collection is included in the fee for the medical exam required by the standard.) Therefore the savings associated with the elimination of one chest x-ray and two sputum cytologies annually is $158.20 per worker ($54.40 for one x-ray, and $103.80 for two sputum cytology tests). For the group of 3,864 employees, the annual savings is thus $611,285.

The American Iron and Steel Institute (AISI) [Ex. 4–22] agreed with the Preliminary Economic Analysis's finding that this change would save employers money. AISI's analysis, which assumed higher wage rates and a larger affected population than OSHA's analysis, estimated a cost savings of $925,000 per year. Thus, the Agency's cost savings estimate for this regulatory action may be understated.

Inorganic Arsenic

As in the case of the coke oven standard, OSHA is eliminating the requirement for sputum cytology and reducing the frequency of chest x-ray exams from semi-annual to annual for workers exposed above the inorganic arsenic action level of 5μg/m^3 (29 CFR 1910.1018). Paragraph (n) of § 1910.1018 formerly required employees exposed above the action level for 30 days per year to receive these medical surveillance elements semi-annually if they were 45 years of age or older or had had more than 10 years of exposure above the action level.

The **Federal Register** notice for the inorganic arsenic rulemaking [May 5, 1978, p. 19585] indicated that, of 660,000 workers exposed to inorganic arsenic, 7,400 were exposed above an 8-hour TWA 4μg/m^3, i.e., close to or above the action level. Although arsenic uses and related exposures have shifted over time, the level of inorganic arsenic use in the U.S. appears to be approximately the same as it was at the time of the original rulemaking.[6] Therefore, for the purposes of this analysis, the Agency assumes that the size of the exposed population is unchanged.

At the time of the original rulemaking, the Inflationary Impact Statement [*Inflationary Impact Statement: Inorganic Arsenic,* 1976] estimated that 50% of employees exposed above the action level would need the semi-annual x-ray exams, based on OSHA's analysis of age, job tenure and turnover. Using the same assumptions, the Agency estimates that approximately 3,700 workers will be affected by the final rule's revision to this provision. This change will eliminate the need for x-ray and sputum cytology testing valued at $158.20 (see the explanation above for coke ovens for cost details) for 3,700 employees, for an annual cost savings of $584,340.

Pulp and Paper

OSHA's existing pulp and paper standard, § 1910.261, contains paragraph (b)(5), ''vessel entering,'' which states:

[3] Opportunity cost measured as the market price for occupational physical exams, i.e., at the rate of about $100 an hour.

[4] $(1-0.05)^5 = 0.77$ This calculation assumes an equal probability of turnover in each year thereafter.

[5] $((0.77) \times (1-0.30)) + (0.30) = 0.84$ All other things equal, at least 30 percent of those with 5 or more years of exposure would be over 45.

[6] Based on the estimated level of raw arsenic trioxide consumed in the U.S. [*Arsenic: Industrial, Biomedical, Environmental Perspectives,* 1983, p. 7; Bureau of Mines, Mineral Commodity Summary, 1995].

Lifelines and safety harness shall be worn by anyone entering closed vessels, tanks, chip bins, and similar equipment, and a person shall be stationed outside in a position to handle the line and to summon assistance in the case of emergency.

Paragraph (b)(5) also prescribes other safety precautions for similar confined spaces in pulp and paper mills.

OSHA is eliminating these specific separate requirements for confined space entry in pulp and paper mills and instead is cross-referencing § 1910.146, OSHA's generic permit-required confined space standard. In other words, employers in the pulp and paper industry will no longer have to comply with § 1910.261(b)(5) but will instead be required to comply with § 1910.146. § 1910.146 requires employers to assess the hazards associated with their confined spaces and take appropriate safety precautions to deal with those hazards. Although § 1910.146 may require employers under certain circumstances to complete additional checklists, conduct training, and plan for rescue, depending on the hazard(s) present, pulp and paper mill employers will in some cases no longer need to require employees to wear lifelines or provide for outside ''attendants'',[7] as was required by § 1910.261.

The costs of complying with § 1910.146 in the pulp and paper industry were included in OSHA's supporting Regulatory Impact Analysis [*Final Regulatory Impact Analysis and Regulatory Flexibility Analysis of the Final Permit-Required Confined Spaces Standard,* December 1992]. They were estimated to be approximately $4 million. No economic or technological feasibility problems were identified.

By deleting the more rigid confined space requirements of the pulp and paper industry-specific standard and requiring employers to comply with the more performance-oriented requirement for attendants and lifelines of the permit-required confined spaces standard, OSHA is simultaneously relieving a burden and enhancing safety. Based on the underlying analysis used by OSHA in producing the RIA for § 1910.146, a comparison of the costs associated with the requirement that an attendant be present (§ 1910.261 (b)(5)) with the more flexible requirements in § 1910.146 indicates a savings to employers of approximately 450,000 person-hours annually. Given the hourly compensation rate of $17 used in the RIA, this represents an annual savings of $7.7 million.

In summary, by revoking or revising these four unnecessary or duplicative requirements, the Agency is reducing annual employer burdens related to first aid kits by $761,000, to medical surveillance for coke oven emission workers by $611,285 and inorganic arsenic workers $584,340, and to confined space entry in pulp and paper mills by $7.7 million, for a total annualized employer savings of $9,656,625.

Technological Feasibility

OSHA could not identify any provision of the final rule that raised technological feasibility problems for employers. OSHA therefore concludes that technological feasibility is not an issue for the changes made to these standards in this regulatory action.

V. Regulatory Flexibility Certification

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 *et seq.*), as amended, requires that the Agency examine its regulatory actions to determine if they have a significant economic impact on a substantial number of small entities. As stated at the time of the proposal, and confirmed by this final economic analysis and comments to the record, these modifications to existing regulations are expected to reduce the regulatory burden on all affected employers, large and small. No commenters disputed this conclusion. For that reason, the Agency hereby certifies that the final rule will not have a significant economic impact on a substantial number of small entities.

VI. Environmental Assessment

The final rule has been reviewed in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 *et seq.*), the regulations of the Council of Environmental Quality (CEQ) (40 CFR part 1500), and DOL NEPA procedures (29 CFR part 11). As a result of this review, OSHA has concluded that the rule will have no significant environmental impact.

VII. International Trade

This revision and revocation of OSHA standards is not likely to have a significant effect on international trade, since the changes involve the revocation of obsolete provisions, consolidation of repetitious provisions, and clarification of confusing language.

VIII. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information collection requirements contained in the final ''Standards Improvement For General Industry and Construction Standards'' standard. OMB has approved the collections of information contained in the Inorganic Arsenic standard and has assigned the OMB Control Number of 1218–0104 to these collections. OMB has also approved the collections of information contained in the Coke Oven Emissions standard and has assigned the OMB Control Number of 1218–0128 to them. Both approvals expire on 3/31/2000. Under 5 CFR 1320.5(b), an agency may not conduct or sponsor a collection of information unless: (1) the collection of information displays a currently valid OMB control number; and (2) the agency informs the potential persons who are to respond to the collection of information that such persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

IX. Federalism

This revision and revocation of OSHA standards has been reviewed in accordance with Executive Order 12612 (52 FR 41685, October 30, 1987), regarding Federalism. This Order requires that agencies, to the extent possible, refrain from limiting State policy options, consult with States prior to taking any actions which would restrict State policy actions, and take such actions only when there is clear constitutional authority and the presence of a problem of national scope. The Order provides for preemption of State law only if there is a clear Congressional intent for the Agency to do so. Any such preemption is to be limited to the extent possible.

Section 18 of the Occupational Safety and Health Act (OSH Act) expresses Congress' intent to preempt State laws relating to issues on which Federal OSHA has promulgated occupational safety and health standards. Under the OSH Act, a State can avoid preemption in issues covered by Federal standards only if it submits, and obtains Federal approval of, a plan for the development of such standards and their enforcement. Occupational safety and health standards developed by such Plan States must, among other things, be at least as effective in providing safe and healthful employment and places of employment as the Federal standards.

The revision and revocation of standards is meant to reduce the volume and complexity of OSHA standards, and

[7] For example, § 1910.146(c)(5) states that, if an employer can certify that ventilation alone can reliably control atmospheric hazards in a space, and that is the only hazard posed by the space, the employer is exempt from many requirements of the standard, including the need for an outside attendant. Similarly, in § 1910.146(k)(3), employers are expressly exempt from using a lifeline if such usage is either valueless or counterproductive from a safety standpoint.

to improve compliance by employers, without diminishing worker safety and health. Those States which have elected to participate under Section 18 of the OSH Act are not preempted by the revocation and revision of these standards and will be able to address any special conditions within the framework of the Federal Act while ensuring that the State standards are at least as effective as the Federal standard.

X. State Plan Standards

The States with their own approved occupational safety and health plans must have at least as effective standards in place within 6 months of the publication date of the final standard. These States are: Alaska, Arizona, California, Connecticut (for State and local government employees only), Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Mexico, New York (for State and local government employees only), North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, and Wyoming.

XI. Authority and Signature

This document was prepared under the direction of Charles N. Jeffress, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

List of Subjects

29 CFR Part 1910

Business and industry, Coke oven emission, Explosives, Fire prevention, Hazardous substances, Inorganic arsenic, Occupatioal safety and health.

29 CFR Part 1926

Construction industry, Electric power, First-aid, Fire prevention

Signed at Washington, D.C. this 11th day of June 1998.

Charles N. Jeffress,

Assistant Secretary of Labor.

Accordingly, pursuant to sections 4, 6, 6(b) (7) and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657), section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333) and Secretary of Labor's Order No. 6–96 (62 FR 111), 29 CFR Parts 1910 and 1926 are amended as set forth below.

PART 1910—[AMENDED]

Subpart H—Hazardous Materials

1. The authority citation for subpart H is revised to read as follows:

Authority: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111), as applicable, and 29 CFR part 1911.

1a. Remove the phrase, ''from inhabited buildings, passenger railways, and public highways and'' from paragraph (c)(1)(vi) of § 1910.109.

2. Remove the words, ''manufacture and'' from the first sentence in footnote number 5, of Table H–21, of § 1910.109.

3. Revise paragraphs (d)(1)(iv) and (e)(2)(i) of § 1910.109 to read as follows:

§ 1910.109 Explosives and blasting agents.

* * * * *

(d) * * *

(1) * * *

(iv) Blasting caps or electric blasting caps shall not be transported over the highways on the same vehicles with other explosives, unless packaged, segregated, and transported in accordance with the Department of Transportation's Hazardous Materials Regulations (49 CFR parts 177–180).

* * * * *

(e) * * *

(2) * * *

(i) Empty containers and paper and fiber packing materials which have previously contained explosive materials shall be disposed of in a safe manner, or reused in accordance with the Department of Transportation's Hazardous Materials Regulations (49 CFR parts 177–180).

§ 1910.110 [Amended]

1. Remove paragraphs (b)(15)(vi) through (b)(15)(viii) of § 1910.110, and redesignate paragraph (b)(15)(ix) as (b)(15)(vi).

2. Remove paragraphs (c)(2)(ii) through (c)(2)(iv) of § 1910.110 and redesignate paragraph (c)(2)(i) as (c)(2).

3. Remove and reserve paragraph (e)(10) of § 1910.110.

4. Remove and reserve paragraph (g) of § 1910.110.

§ 1910.111 [Amended]

5. Remove and reserve paragraphs (f)(7) and (f)(8) of § 1910.111.

Subpart J—General Environmental Controls

1. The authority citation for subpart J is revised to read as follows:

Authority: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111), as applicable, 29 CFR Part 1911.

§ 1910.141 [Amended]

2. Remove paragraph (a)(2)(i) of § 1910.141 and all paragraph designations for the definitions within paragraph (a)(2) of § 1910.141.

§ 1910.142 [Amended]

3. Remove paragraph (a)(4) of § 1910.142.

Subpart K—Medical and First Aid

1. The authority citation for subpart K is revised to read as follows:

Authority: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111), as applicable, 29 CFR part 1911.

2. Revise the final sentence in paragraph (b) of § 1910.151 to read as follows:

§ 1910.151 Medical services and first aid.

* * * * *

(b) * * * Adequate first aid supplies shall be readily available.

* * * * *

3. In § 1910.151, add Appendix A to read as follows:

Appendix A to § 1910.151—First aid kits (Non-Mandatory)

First aid supplies are required to be readily available under paragraph § 1910.151(b). An example of the minimal contents of a generic first aid kit is described in American National Standard (ANSI) Z308.1–1978 ''Minimum Requirements for Industrial Unit-Type First-aid Kits.'' The contents of the kit listed in the ANSI standard should be adequate for small worksites. When larger operations or multiple operations are being conducted at the same location, employers should determine the need for additional first aid kits at the worksite, additional types of first aid equipment and supplies and additional quantities and types of supplies and equipment in the first aid kits.

In a similar fashion, employers who have unique or changing first-aid needs in their workplace may need to enhance their first-aid kits. The employer can use the OSHA 200 log, OSHA 101's or other reports to identify these unique problems. Consultation from the local fire/rescue department, appropriate medical professional, or local emergency room may be helpful to employers in these circumstances. By assessing the specific needs of their workplace, employers can ensure that reasonably anticipated supplies are available. Employers should assess the specific needs of their worksite periodically and augment the first aid kit appropriately.

If it is reasonably anticipated that employees will be exposed to blood or other potentially infectious materials while using first aid supplies, employers are required to provide appropriate personal protective equipment (PPE) in compliance with the provisions of the Occupational Exposure to Blood borne Pathogens standard,

§ 1910.1030(d)(3) (56 FR 64175). This standard lists appropriate PPE for this type of exposure, such as gloves, gowns, face shields, masks, and eye protection.

Subpart L—Fire Protection

1. The authority citation for subpart L is revised to read as follows:

Authority: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111) as applicable; 29 CFR part 1911.

§ 1910.156 [Amended]

2. Remove paragraph (f)(2)(iii) of § 1910.156.

Subpart N—Materials Handling and Storage

1. The authority citation for subpart N is revised to read as follows:

Authority: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111), as applicable; and 29 CFR part 1911.

§ 1910.183 [Amended]

2. Remove and reserve paragraph (a) of § 1910.183.

Subpart R—Special Industries

1. The authority citation for subpart R is revised to read as follows:

Authority: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111), as applicable; and 29 CFR part 1911.

§ 1910.261 [Amended]

2. Remove the following paragraphs in § 1910.261: (a)(3) (ii), (iv) through (vi), (ix), (xi) through (xiii), (xv), (xvii) through (xix), (xx), (xxii), (xxiv) through (xxvii).

3. The following paragraphs in § 1910.261 are redesignated as follows:

a. paragraph (a)(3)(iii) as paragraph (a)(3)(ii),

b. paragraph (a)(3)(vii) as paragraph (a)(3)(iii),

c. paragraph (a)(3)(viii) as paragraph (a)(3)(iv),

d. paragraph (a)(3)(x) as paragraph (a)(3)(v),

e. paragraph (a)(3)(xiv) as paragraph (a)(3)(vi),

f. paragraph (a)(3)(xvi) as paragraph (a)(3)(vii),

g. paragraph (a)(3)(xxi) as paragraph (a)(3)(viii),

h. paragraph (a)(3)(xxiii) as paragraph (a)(3)(ix).

4. Remove paragraphs (b)(1) through (b)(3), (b)(5), and (b)(6) of § 1910.261.

5. Redesignate paragraph (b)(4) as paragraph (b)(1) and paragraph (b)(7) as paragraph (b)(2) of § 1910.261.

6. Remove the following paragraphs in § 1910.261: (c) (2)(vi), (2)(vii), (6)(ii), and (7)(ii).

7. Remove and reserve the following paragraphs of § 1910.261: (c) (3)(i), (8)(i), and (11).

8. The following paragraphs in § 1910.261 are redesignated as follows:

a. paragraph (c)(2)(viii) as paragraph (c)(2)(vi),

b. paragraph (c)(6)(i) as paragraph (c)(6),

c. paragraph (c)(7)(i) as paragraph (c)(7),

d. paragraph (d)(1)(i) as paragraph (d)(1).

9. Remove paragraph (d)(1)(ii) of § 1910.261.

10. Remove and reserve paragraphs (e)(3), (e)(7), and (e)(9) of § 1910.261.

11. Remove paragraphs (g)(1)(iv) and (g)(2)(i) of § 1910.261.

12. Remove paragraphs (g)(15)(iv) and (g)(15)(vi) of § 1910.261.

13. The following paragraphs in § 1910.261 are redesignated as follows:

a. paragraph (g)(1)(v) as paragraph (g)(1)(iv),

b. paragraph (g)(2)(ii) as paragraph (g)(2)(i),

c. paragraph (g)(2)(iii) as paragraph (g)(2)(ii),

d. paragraph (g)(15)(v) as paragraph (g)(15)(iv).

14. Remove paragraph (h)(2)(iii) of § 1910.261, and redesignate (h)(2)(iv) as (h)(2)(iii).

15. Remove paragraphs (j)(1)(iv), (j)(4)(ii), (j)(5)(iv) and (j)(6)(ii) of § 1910.261.

16. Remove and reserve paragraph (j)(3) of § 1910.261.

17. The following paragraphs in § 1910.261 are redesignated as follows:

a. paragraph (j)(4)(iii) through paragraph (j)(4)(vi) as paragraph (j)(4)(ii) through paragraph (j)(4)(v),

b. paragraph (j)(6)(iii) as paragraph (j)(6)(ii).

18. Remove paragraph (k)(2)(i) of § 1910.261, and redesignate paragraphs (k)(2)(ii) through (k)(2)(vi) as paragraphs (k)(2)(i) through (k)(2)(v), respectively.

19. Remove and reserve paragraphs (k)(4) and (k)(16) of § 1910.261.

20. Remove and reserve paragraphs (m)(2) and (m)(4) of § 1910.261.

21. Remove paragraphs (m)(5)(i) and (m)(5)(ii) of § 1910.261.

22. Redesignate paragraph (m)(5)(iii) of § 1910.261 as paragraph (m)(5), and add a heading to paragraph (m)(5) to read ''Unloading Cars.''

§ 1910.262 [Amended]

23. Remove and reserve paragraphs (c)(3) and (c)(4) of § 1910.262.

24. Remove and reserve paragraph (gg) of § 1910.262.

25. Remove paragraphs (ll)(1), (qq), and (rr) of § 1910.262.

26. Redesignate paragraph (ll)(2) of § 1910.262 as paragraph (ll).

§ 1910.265 [Amended]

27. Remove paragraph (a)(2) of § 1910.265.

28. Redesignate paragraph (a)(1) of § 1910.265 as paragraph (a).

29. Remove and reserve paragraphs (c)(3)(i), (c)(10), (c)(14), and (c)(16) of § 1910.265.

30. Remove and reserve paragraph (c)(17) of § 1910.265.

31–32. Remove and reserve paragraph (c)(22) of § 1910.265.

33. Remove paragraph (c)(24)(iv)(*a*) of § 1910.265 and redesignate paragraph (c)(24)(iv)(*b*) as paragraph (*c*)(24)(iv).

34. Remove paragraph (c)(24)(iv)(c) of § 1910.265.

35. Remove and reserve paragraphs (c)(26)(i), (c)(30)(vi), (c)(30)(x), and (e)(3)(ii)(*d*) of § 1910.265.

36. Remove paragraphs (f)(9), (g), (h), and (i) of § 1910.265.

§ 1910.267 [Removed and Reserved]

37. Remove and reserve § 1910.267.

§ 1910.268 [Amended]

38. Revise paragraph (f)(1), remove paragraphs (f)(2) through (f)(4) and (f)(7) through (f)(9) and redesignate paragraphs (f)(5) and (f)(6) as (f)(2) and (f)(3) as follows:

§ 1910.268 Telecommunications.

* * * * *

(f) *Rubber insulating equipment.* (1) Rubber insulating equipment designed for the voltage levels to be encountered shall be provided and the employer shall ensure that they are used by employees as required by this section. The requirements of § 1910.137, Electrical Protective Equipment, shall be followed except for Table I–6.

* * * * *

Subpart Z—Toxic and Hazardous Substances

1. The authority citation for subpart Z is revised to read as follows:

Authority: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111), as applicable; and 29 CFR part 1911.

All of subpart Z issued under sec. 6(b) of the Occupational Safety and Health Act, except those substances that have exposure limits listed in Tables Z–1, Z–2, and Z–3 of 29 CFR 1910.1000. The latter were issued under sec. 6(a) (29 U.S.C. 655(a)).

Section 1910.1000, Tables Z–1, Z–2 and Z–3 also issued under 5 U.S.C. 553, Section 1910.1000 Tables Z–1, Z–2, and Z–3 not issued under 29 CFR part 1911 except for the arsenic (organic compounds), benzene, and cotton dust listings.

Section 1910.1001 also issued under section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333) and 5 U.S.C. 553.

Section 1910.1002 not issued under 29 U.S.C. 655 or 29 CFR part 1911; also issued under 5 U.S.C. 553.

Sections 1910.1018, 1910.1029 and 1910.1200 are also issued under 29 U.S.C. 653.

§ 1910.1017 [Amended]

2. In § 1910.1017, remove paragraph (g)(5).

3. Redesignate paragraphs (g)(6) and (g)(7) of § 1910.1017 as paragraphs (g)(5) and (g)(6), respectively.

4. In § 1910.1018, remove paragraph (n)(2)(ii)(C); redesignate paragraph (n)(2)(ii)(D) as (n)(2)(ii)(C); add the word ''and'' after paragraph (n)(2)(ii)(B); and revise the reference in paragraph (n)(3)(i) that reads ''(n)(2)(ii)(A) (B) and (D)'' to read ''(n)(2)(ii)''; and revise paragraph (n)(3)(ii) to read as follows:

§ 1910.1018 Inorganic arsenic.

* * * * *

(n) * * * *

(3) * * * *

(ii) The employer shall provide the examinations specified in paragraphs (n)(2)(i) and (n)(2)(ii)(B) and (C) of this section at least semiannually, and the x-ray requirement specified in paragraph (n)(2)(ii)(A) of this section at least annually, for other covered employees.

* * * * *

§ 1910.1018 [Amended]

5. In § 1910.1018, remove paragraphs (q)(2)(iii)(F), (q)(2)(iii)(G), and (q)(2)(iii)(H); and insert the word ''and'' after paragraph (q)(2)(iii)(D).

6. In Appendix A to § 1910.1018, revise paragraph VI to read as follows:

Appendix A to § 1910.1018—Inorganic Arsenic Substance Information Sheet

* * * * *

VI. MEDICAL EXAMINATIONS

If your exposure to arsenic is over the Action Level (5 mg/m3)—(including all persons working in regulated areas) at least 30 days per year, or you have been exposed to arsenic for more than 10 years over the Action Level, your employer is required to provide you with a medical examination. The examination shall be every 6 months for employees over 45 years old or with more than 10 years exposure over the Action Level and annually for other covered employees. The medical examination must include a medical history; a chest x-ray; skin examination and a nasal examination. The examining physician will provide a written opinion to your employer containing the results of the medical exams. You should also receive a copy of this opinion. The physician must not tell your employer any conditions he detects unrelated to occupational exposure to arsenic but must tell you those conditions.

Appendix C—[Amended]

* * * * *

7. In Appendix C to § 1910.1018, Section I, General, remove paragraph (4) which reads ''(4) A Sputum Cytology examination;'' redesignate paragraph (5) as paragraph (4); and insert the word ''and'' after paragraph (3).

8. In Appendix C to § 1910.1018, remove the entire section entitled ''III. Sputum Cytology''.

9. In § 1910.1029, remove paragraph (j)(2)(vii) and redesignate paragraph (j)(2)(viii) as paragraph (j)(2)(vii) and insert the word ''and'' after paragraph (j)(2)(vi).

10. In paragraph (j)(3)(ii) of § 1910.1029, the reference ''(j)(2)(i)–(viii)'' is revised to read ''(j)(2)(i) and (j)(2)(iii) through (vii).''

11. In paragraph (j)(3)(iii) of § 1910.1029, the reference ''(j)(2)(i)–(viii)'' is revised to read ''(j)(2)(i) and (j)(2)(iii) through (vii).''

12. In § 1910.1029, redesignate paragraph (j)(3)(iv) as paragraph (j)(3)(v), and add a new paragraph (j)(3)(iv) to read as follows:

§ 1910.1029 Coke oven emissions.

* * * * *

(j) * * *

(3) * * *

(iv) The employer shall provide the x-ray specified in paragraph (j)(2)(ii) of this section at least annually for employees covered under paragraph (j)(3) of this section.

13. In Appendix A to § 1910.1029, paragraph VI is revised to read as follows:

Appendix A to § 1910.1029—Coke Oven Emissions Substance Information Sheet

* * * * *

VI. MEDICAL EXAMINATIONS

If you work in a regulated area at least 30 days per year, your employer is required to provide you with a medical examination every year. The medical examination must include a medical history, a chest x-ray, pulmonary function test, weight comparison, skin examination, a urinalysis, and a urine cytology exam for early detection of urinary cancer. The urine cytology exam is only included in the initial exam until you are either 45 years or older, or have 5 or more years employment in the regulated areas when the medical exams including this test, but excepting the x-ray exam, are to be given every six months; under these conditions, you are to be given an x-ray exam at least once a year. The examining physician will provide a written opinion to your employer containing the results of the medical exams. You should also receive a copy of this opinion.

14. In Appendix B to § 1910.1029, Section II, paragraph A is revised to read as follows:

Appendix B to § 1910.1029—Industrial Hygiene and Medical Surveillance Guidelines

* * * * * *

II. Medical Surveillance Guidelines

A. *General.* The minimum requirements for the medical examination for coke oven workers are given in paragraph (j) of the standard. The initial examination is to be provided to all coke oven workers who work at least 30 days in the regulated area. The examination includes a 14″ × 17″ posterior-anterior chest x-ray reading and a ILO/UC rating to assure some standardization of x-ray reading, pulmonary function tests (FVC and FEV 1.0), weight, urinalysis, skin examination, and a urinary cytologic examination. These tests are needed to serve as the baseline for comparing the employee's future test results. Periodic exams include all the elements of the initial exams, except that the urine cytologic test is to be performed only on those employees who are 45 years or older or who have worked for 5 or more years in the regulated area; periodic exams, with the exception of x-rays, are to be performed semiannually for this group instead of annually; for this group, x-rays will continue to be given at least annually. The examination contents are minimum requirements; additional tests such as lateral and oblique x-rays or additional pulmonary function tests may be performed if deemed necessary.

15. In Appendix B to § 1910.1029, Section II, the paragraphs entitled ''C. Sputum Cytology,'' are removed.

PART 1926—[AMENDED]

Subpart C—General Safety and Health Standards

1. The authority citation for subpart C is revised to read as follows:

Authority: Sec. 107, Contract Work Hours and Safety Standards Act (40 U.S.C. 333); secs. 4, 6, and 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111), as applicable; and 29 CFR part 1911.

2. Revise paragraph (a) of § 1926.31 to read as follows:

§ 1926.31 Incorporation by reference.

(a) The standards of agencies of the U.S. Government, and organizations which are not agencies of the U.S. Government which are incorporated by reference in this part, have the same

force and effect as other standards in this part. Only the mandatory provisions (i.e., provisions containing the word ''shall'' or other mandatory language) of standards incorporated by reference are adopted as standards under the Occupational Safety and Health Act. The locations where these standards may be examined are as follows:

(1) Offices of the Occupational Safety and Health Administration, U.S. Department of Labor, Frances Perkins Building, Washington, DC 20210.

(2) The Regional and Field Offices of the Occupational Safety and Health Administration, which are listed in the U.S. Government Manual.

* * * * *

Subpart D—Occupational Health and Environmental Controls

1. The authority citation for subpart D is revised to read as follows:

Authority: Sec. 107, Contract Work Hours and Safety Standards Act (40 U.S.C. 333); secs. 4, 6, and 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111), as applicable; and 29 CFR part 1911.

2. Revise paragraphs (d)(1), (d)(2) and (f) of § 1926.50 to read as follows:

§ 1926.50 Medical services and first aid.

* * * * *

(d)(1) First aid supplies shall be easily accessible when required.

(2) The contents of the first aid kit shall be placed in a weatherproof container with individual sealed packages for each type of item, and shall be checked by the employer before being sent out on each job and at least weekly on each job to ensure that the expended items are replaced.

* * * * *

(f) In areas where 911 is not available, the telephone numbers of the physicians, hospitals, or ambulances shall be conspicuously posted.

* * * * *

4. In § 1926.50, add Appendix A to read as follows:

Appendix A to § 1926.50—First aid Kits (Non-Mandatory)

First aid supplies are required to be easily accessible under paragraph § 1926.50(d)(1). An example of the minimal contents of a generic first aid kit is described in American National Standard (ANSI) Z308.1–1978 ''Minimum Requirements for Industrial Unit-Type First-aid Kits''. The contents of the kit listed in the ANSI standard should be adequate for small work sites. When larger operations or multiple operations are being conducted at the same location, employers should determine the need for additional first aid kits at the worksite, additional types of first aid equipment and supplies and additional quantities and types of supplies and equipment in the first aid kits.

In a similar fashion, employers who have unique or changing first-aid needs in their workplace, may need to enhance their first-aid kits. The employer can use the OSHA 200 log, OSHA 101's or other reports to identify these unique problems. Consultation from the local Fire/Rescue Department, appropriate medical professional, or local emergency room may be helpful to employers in these circumstances. By assessing the specific needs of their workplace, employers can ensure that reasonably anticipated supplies are available. Employers should assess the specific needs of their worksite periodically and augment the first aid kit appropriately.

If it is reasonably anticipated employees will be exposed to blood or other potentially infectious materials while using first-aid supplies, employers should provide personal protective equipment (PPE). Appropriate PPE includes gloves, gowns, face shields, masks and eye protection (see ''Occupational Exposure to Blood borne Pathogens'', 29 CFR 1910.1030(d)(3)) (56 FR 64175).

Subpart F—Fire Protection and Prevention

1. The authority citation for subpart F is revised to read as follows:

Authority: Sec. 107, Contract Work Hours and Safety Standards Act (40 U.S.C. 333); secs. 4, 6, and 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111) as applicable; and 29 CFR part 1911.

2. In § 1926.152, revise paragraph (a)(1) to read as follows:

§ 1926.152 Flammable and combustible liquids.

(a) * * * (1) Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids. Approved safety cans or Department of Transportation approved containers shall be used for the handling and use of flammable liquids in quantities of 5 gallons or less, except that this shall not apply to those flammable liquid materials which are highly viscid (extremely hard to pour), which may be used and handled in original shipping containers. For quantities of one gallon or less, the original container may be used, for storage, use and handling of flammable liquids.

Subpart U—Blasting and Use of Explosives

1. The authority citation for subpart U is revised to read as follows:

Authority: Sec. 107, Contract Work Hours and Safety Standards Act (40 U.S.C. 333); secs. 4, 6, 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), or 6–96 (62 FR 111), as applicable; and 29 CFR part 1911.

2. Revise paragraph (q) of § 1926.906 to read as follows:

§ 1926.906 Initiation of explosive charges—electric blasting.

* * * * *

(q) Blasters, when testing circuits to charged holes, shall use only blasting galvanometers or other instruments that are specifically designed for this purpose.

* * * * *

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