North Carolina Department of Labor
Division of Occupational Safety and Health
Raleigh, North Carolina

Chapter 7 CFR Revision 164

Subchapter 7F

Field Information System

Dipping and Coating Operations

29 CFR 1910.122-.126

Discussion:

On March 23, 1999, Federal OSHA promulgated the final rule, 29 CFR 1910.122-.126, Dipping and Coating Operations. The final rule incorporates 29 CFR 1910.94(d) and 1910.108 into this plain language rewrite and increases the compliance options available to employers to achieve these goals.

Action:

The N.C. Commissioner of Labor adopted the federal Dipping and Coating Operations Standard verbatim with an effective date of September 3, 1999. Refer to the 3/23/1999 *Federal Register* (Volume 64, No. 55) for the details related to these requirements.

Cancellation:

This final rule removes 29 CFR 1910.94(d) & 1910.108. In addition, it also cancels STD 1-5.5, "Flammable and Combustible Liquids - Sinks Used for Cleaning."

NC APA Effective Date: September 3, 1999

NCAC Number: 13 NCAC 7F.0101

Signed on Original
Robert K. Andrews, Jr.
Deputy Commissioner

9/3/99
Date of Signature

Authority: 34 CFR 256; sec. 104, Pub. L. 93–638, 88 Stat. 2203, 2207 (25 U.S.C. 450h).

§ 276.11 [Amended]

36. In § 276.11, in paragraphs (b) introductory text, (b)(1), and (c) introductory text, the words ''part 272'' are revised to read ''part 900.''

[FR Doc. 99–6695 Filed 3–22–99; 8:45 am]
BILLING CODE 4310–02–P

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Part 1910

[Docket No. S–022]

RIN 1218–AB55

Dipping and Coating Operations

AGENCY: Occupational Safety and Health Administration (OSHA), Labor.

ACTION: Final rule.

SUMMARY: OSHA's standards for dipping and coating operations, codified at sections 1910.108 and 1910.94(d), are designed to protect employees from fire, explosion, and other hazards associated with these operations. On April 7, 1998 (63 FR 16918), OSHA published proposed revisions to these standards in the **Federal Register**. The Federal Register announcement requested comments on the proposed rule, as well as on three major issues identified by OSHA. Based on these comments and other considerations, the Agency has developed the final standard to accomplish several goals: To rewrite the former standards in plain language; to consolidate the former requirements in sequential sections (sections 1910.122 through 1910.126 in subpart H of part 1910); and to update the former standards to increase the compliance options available to employers. In addition to achieving these goals, OSHA concludes that the final rule being published today will enhance employee protection by making it more understandable and useful to employers and employees and more flexible and performance-oriented than the former rules. The final rule accomplishes these goals without increasing the regulatory burden of employers or reducing employee protection.

DATES: The final rule becomes effective April 22, 1999. The incorporation by reference of certain publications listed in the final rule is approved by the Director of the Federal Register as of April 22, 1999.

ADDRESSES: In accordance with 28 U.S.C. 2112(a), the Agency designates the Associate Solicitor for Occupational Safety and Health, Office of the Solicitor of Labor, Room S–4004, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, DC 20210 to receive petitions for review of the final rule.

FOR FURTHER INFORMATION CONTACT: Ms. Bonnie Friedman, Director, Office of Public Affairs, Room N–3647, Occupational Safety and Health Administration, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, DC 20210; telephone: (202) 693–1999. For additional copies of this Federal Register notice contact: OSHA, Office of Publications, U.S. Department of Labor, Room N–3101, 200 Constitution Avenue, N.W., Washington, DC 20210; telephone: (202) 693–1888. Electronic copies of this Federal Register notice, as well as news releases, fact sheets, and other relevant documents, can be obtained from OSHA's web page on the Internet at http://www.OSHA.gov.

SUPPLEMENTARY INFORMATION:

I. Background

In May 1995, President Clinton asked all Federal regulatory agencies to review their regulations to determine if they were inconsistent, duplicative, outdated, or in need of being rewritten in plain language. In response, OSHA conducted a line-by-line review of its standards, and committed the Agency to eliminating those found to be unnecessary, duplicative, or inconsistent and to rewriting those found to be complex and outdated. The Agency's dip-tank standards were identified by that review as needing clarification.

OSHA chose to rewrite these standards in plain language because dip tanks pose serious hazards to employees engaged in dipping and coating operations. There are hundreds of thousands of dip tanks in America. Wherever metals are coated, furniture is stripped and refinished, automobiles are repaired, aircraft are maintained, and leather is tanned, dip tanks are an essential part of the process. The liquids used to perform these operations are often dangerous, both from a safety and health standpoint. These liquids include flammable substances such as acetone, corrosive materials such as cyanide acids and chromic acids, and chronic toxins such as perchloroethylene and methylene chloride. Most facilities with dip tanks are small: OSHA estimates that the majority of these facilities have fewer than 20 employees. Industries with large numbers of dip tanks include automobile manufacturing, electronic manufacturing, electroplating, defense, transportation equipment, computer manufacturing, automobile repair, paint stripping, and other service industries.

The final rule does not change the technical substance of the former standards or alter the regulatory obligations placed on employers or the safety and health protections provided to employees. OSHA believes, moreover, that the performance-oriented language of the final rule will facilitate compliance because it gives employers more compliance options than they had under the former standards.

II. Summary and Explanation of the Final Rule

This section consists of five parts. Part 1 summarizes the comments received by OSHA on the three issues raised in the proposal. The issues are listed together, followed by the comments on each issue and OSHA's responses. The second part summarizes the comments on specific paragraphs of the proposal, as well as OSHA's discussion of the comments. In the third part, OSHA responds to general comments made about the rulemaking, while the fourth part describes technical and editorial revisions made by OSHA to the final regulatory text. Part 5 consists of tables that compare provisions of the former and final rules.

Note that OSHA has redesignated the section numbers in the final rule as 1910.122 through 1910.126, instead of 1910.121 through 1910.125, as proposed. This revision is explained more fully in Part 4, paragraph a.

Part 1

OSHA received the following comments on the three issues raised in the proposal.

(a) *The first issue,* which addressed whether the plain-language version of the final rule reduces employee protections or increases employer burden when compared with the former standards, received only one comment (Ex. 4–13). This commenter stated that the plain-language version improved employee protection because the performance-oriented language would ''accommodate technical advancement in industries impacted by the standard.'' This comment substantiates the Agency's finding that the proposed standard ''will enhance employee protection by * * * providing additional compliance flexibility to employers.'' (63 FR 16918)

(b) *The second issue,* which concerned commenters' preference for the traditional format or question-and-

answer format (both of which were proposed), elicited five comments. One commenter (Ex. 4–6) had no preference, stating that ''either plain language alternative format * * * [is] acceptable and more user friendly than the current standard.'' Another commenter (Ex. 4–7) preferred the traditional format but provided no rationale for this preference. Three commenters (Exs. 4–3, 4–5, and 4–13) preferred the traditional format on the grounds that it simplified the regulatory text and made it easy to follow. One of these commenters (Ex. 4–5) noted that the paragraph headings in the traditional format are ''informative and useful; they should make it easier [to find information quickly].'' Another commenter (Ex. 4–12) objected to the question-and-answer format because it is ''redundant and more time consuming to review,'' adding that locating a specific requirement depends too much on the reader's asking of the correct question. Additionally, this commenter stated that existing training programs ''are built around the traditional format, and a change of format would require a more comprehensive approach than proposed here.'' One commenter (Ex. 4–8) favored the question-and-answer format because the simple paragraphs are ''devoted to a single, unified topic'' and ''are more 'user friendly' and thus will be more easily understood.''

Existing Federal policy favors the use, when appropriate, of the question-and-answer format and personal pronouns to enhance understandability and directness. Based on a recent memorandum from President Clinton (Presidential Memorandum for the Heads of Executive Departments and Agencies, June 1, 1998) and additional guidance received from the National Partnership for Reinventing Government (Vice Presidential Memorandum to the Heads of Executive Departments and Agencies, July 29, 1998), OSHA decided that the final rule will follow the question-and-answer plain-language format. To address commenters' concerns (Exs. 4–3, 4–5, and 4–13), OSHA removed proposed sentences that were repeated in both the question and answer to the question, shortened the questions, and made them specific to the topic of the provision.

(c) *The third issue* raised in the proposal asked whether provisions of the former dip-tank standards should be updated. Only one comment (Ex. 4–12) was received on this topic, and this commenter stated that there was no need to update the standards further. The Agency, therefore, concludes that no further updating of the dip-tank standards is necessary at this time.

Part 2

OSHA received the following comments on specific proposed paragraphs.

Proposed paragraphs 1910.122(a) and (b) (final paragraphs 1910.123(a) and (b)), which addressed the scope of the rule, received one comment (Ex. 4–4). This commenter stated that the two paragraphs should be combined because ''[s]eparating them serves no purpose.'' OSHA has not combined paragraphs (a) and (b) in the final rule because the Agency believes it is appropriate to separate provisions establishing the final rule's applicability from those providing examples of covered operations.

Four commenters (Exs. 4–6, 4–7, 4–9, and 4–11) were concerned that the scope of the proposed rule had been enlarged over that of the former standards because the proposal used the phrase ''liquid other than water.'' For example, one commenter (Ex. 4–6) interpreted this phrase as including, for example, water-based materials. According to this commenter, ''the hazard associated with materials having high flash points (e.g. greater than 140 or 200 degrees Fahrenheit; Class II or Class IIIA liquids), and low toxicity, do [sic] not appear to warrant inclusion in this type of a standard. This can include numerous water-based materials that can be used for cleaning, coating or treating.''

Another commenter (Ex. 4–7) argued that the scope of the proposed rule was broader than that of the former standard because the hazard assessment required by paragraph (d)(2) of former section 1910.94 had been removed and ''[w]ithout a hazard assessment the proposed rule's coverage would significantly expand and add burdensome requirements where there is little hazard.'' Another commenter (Ex. 4–9) stated, ''Logically, the proposed rule should [require employers to] assess the severity and exposure to a hazard based on existing OSHA requirements (Z table). Then if the hazard or exposure warranted employee protection, the proposed rules would be required.''

The major concern of these commenters was that the scope of the rule had been broadened beyond that of former sections 1910.94(d) and 1910.108. In situations where the ventilation requirements of former paragraph 1910.94(d) did not apply (because employers were using cleaning solutions such as soap and water in their dip tanks), the commenters assumed that the training, personal-protection, hygiene-facilities, physical-examination, and first-aid requirements also did not apply. This assumption is not correct. Under the former rule (1910.94(d)(2)) and the final rule (1910.124(b)), even if a dipping or coating operation is exempt from the ventilation requirements, it may still be covered by other provisions, depending on the characteristics of the operation. For example, the hygiene facilities provision of the final rule applies when employees are exposed to ''liquids that may burn, irritate, or otherwise harm their skin''; this clarification is explained below in OSHA's response to the comments on proposed paragraph 1910.123(g). Similarly, the physical-examination and first-aid requirements also apply when specific conditions exist (see the discussion of paragraph 1910.123(h) below). As discussed below, these provisions are no broader in scope in the final rule than they were before.

In addition, the final rule cross-references the personal-protective equipment (PPE) requirements of subpart I, instead of including them in the rule. The effect of this change, which is described in connection with the discussion below of paragraphs 1910.123(e) and (f), is that the final rule's PPE requirements will only be triggered when the contents of the dip tank warrant use of PPE.

Proposed paragraph 1910.122(d) (final paragraph 1910.123(d)) defined ''approved'' to mean that the ''equipment is listed or approved by a nationally recognized testing laboratory as defined by § 1910.7.'' One commenter (Ex. 4–4) recommended that the definition be revised to ''allow equipment and systems that can be shown to meet a recognized design standard.'' OSHA has not adopted this suggestion because 29 CFR 1910.7 ensures that a nationally recognized testing laboratory (NRTL) has evaluated approved equipment and found it to be safe.

In defining the term ''approved,'' OSHA refers to section 1910.7 because it permits uniform and high-quality evaluation of health and safety equipment required by OSHA standards. OSHA has recognized many NRTLs under 29 CFR 1910.7 to provide equipment manufacturers with testing services; a list of these laboratories can be obtained from OSHA's Technical Support Directorate. In addition, this commenter is recommending a substantive revision to the former standards that OSHA has not considered, and which, therefore, is beyond the scope of this rulemaking.

Proposed paragraph 1910.122(d) (final paragraph 1910.123(d)) defined

''combustible liquid'' as ''a liquid having a flash point of 100° F (37.8° C) or above.'' One commenter (Ex. 4–1) recommended that ''[t]he * * * definition should be expanded to state 'but less than 200° F,' '' and another commenter (Ex. 4–7) stated that Class III liquids should not be covered and Class II liquids should be defined as having ''a flash point above * * * 100 degrees Fahrenheit and below 140 degrees Fahrenheit.''

OSHA has retained the proposed definition of ''combustible liquids'' in the final rule because it is consistent with the definition of such liquids in section 1910.106(a) (as well as NFPA 34–1995); in addition, the regulated community has considerable experience using this definition when managing flammable and combustible liquids. However, the Agency also has added a statement at the beginning of section 1910.125 of the final rule excepting combustible liquids with flashpoints of 200° F or above from the rule unless the liquid is heated as part of the dipping or coating operation or a heated object is placed in an unheated liquid having such a flashpoint. This exception, which responds to the comments on this provision, is warranted because no combustible or explosive vapors are produced under these conditions.

Proposed paragraph 1910.122(d) (final paragraph 1910.123(d)) defined ''dip tank'' as ''a tank, vat, or container that holds liquids used for dipping or coating operations. In dipping or coating operations, an object may be immersed totally or partially in a dip tank, or held in the vapor above the dip tank.'' There were four comments on this definition (Exs. 4–1, 4–6, 4–7, and 4–10). One commenter (Ex. 4–1) observed that objects are often held ''within the vapor layer, which is above the liquid level and below the condensing coils *within* the tank.'' OSHA agrees with this commenter and, in the final rule, revised the last part of the second sentence of the definition to read ''or suspended in a vapor coming from the dip tank.''

This commenter (Ex. 4–1) also noted that OSHA Instruction STD 1–5.5 states that parts-washing sinks are not dip tanks. Other commenters (Exs. 4–6, 4–7, and 4–10) argued that containers having a capacity or surface area below a specific level (e.g., 60 gallons or 25 square feet) should not be covered by the definition.

The proposed definition of ''dip tank'' was adopted from those in former paragraphs 1910.94(d)(1)(i) and 1910.108(a)(1), which contained no exceptions based on the dip tank's type, capacity, or surface area. Therefore, all containers, regardless of capacity or surface area, are covered by the applicable requirements of the final rule; to exempt some tanks based on these considerations would diminish the protections provided to employees by the final rule. The Agency also notes that OSHA Instruction STD 1–5.5, which was published in 1978, pertained to parts-washing tanks that were supplied with drains. The use of such tanks is no longer permitted by Environmental Protection Agency rules, which prohibit the draining of flammable or combustible liquids into sewer systems or ground-water reservoirs. Consequently, OSHA will soon issue a directive canceling STD 1–5.5.

Another commenter (Ex. 4–7) recommended that ''OSHA should use [its] existing definition [of dip tanks] in 29 CFR 1910.108(a)(1).'' In response, OSHA notes that the definition of ''dip tank'' in former paragraph 1910.108(a)(1) covered only flammable and combustible liquids, while other liquids were covered by the definition in former paragraph 1910.94(d)(1)(i). The final standard's definition of dip tank combines the coverage and operations addressed by the definitions in both sections 1910.94(d) and 1910.108.

Proposed paragraph 1910.122(d) (final paragraph 1910.123(d)) defined ''vapor area'' as ''any space containing dipping or coating operations, its drain boards, and associated drying or conveying equipment.'' Four commenters (Exs. 4–1, 4–2, 4–4, and 4–7) stated that the definition was vague and should be revised to ''provide an objective and simple test to determine the boundaries of a 'vapor area' so that employers complying with the standard can clearly establish the point in their operations at which such precautions as explosion-proof or intrinsically electrical equipment must be used'' (Ex. 4–2). A second commenter (Ex. 4–4) stated that ''[t]he definition [of vapor area] should include any associated equipment that might operate above 25% of the LFL, as is the case in NFPA 34's definition in Section 1–6.'' This commenter also recommended that OSHA adopt the definition of ''vapor source'' from section 1–6 of NFPA 34–1995. Finally, a third commenter (Ex. 4–7) urged OSHA to ''consider adding 'or hazardous concentrations of vapors' [to the definition] so that this encompasses both [former] regulations.''

OSHA agrees with these commenters that the definition of ''vapor area'' in the final rule should be more specific. Consequently, the Agency revised the definition to include areas in which the concentration of flammable vapors exceeds 25% of the LFL. The revised definition, therefore, is consistent with the phrase ''dangerous quantities'' in the definition of ''vapor area'' in former paragraph 1910.108(a)(2). However, OSHA sees no need to adopt a definition for ''vapor source'' because this term is not used in the regulatory text.

Proposed paragraph 1910.123(a) (final paragraph 1910.124(a)), which addressed the construction requirements for dip tanks and would have required the tank and its drain boards to be able ''to withstand any expected load,'' received only one comment (Ex. 4–7): ''A more concise wording would read 'Dip tanks must be constructed for their intended service.' '' The Agency interprets the phrase ''to withstand any expected load'' in the standard as referring to the strength of the dip tank. The term ''service'' in the commenter's recommended language appears to address the usefulness of a dip tank, not its strength. Therefore, OSHA is not adopting this commenter's suggestion.

Proposed paragraph 1910.123(b) (final paragraph 1910.124(b)), which specified the requirements for adequate ventilation, elicited only the following comment (Ex. 4–4): ''NFPA 34 Section 5–2 is more definitive [than the parallel provision in the proposed rule] in that it sets a performance requirement for the ventilation system to limit the extent of the vapor area to not more than 5 feet beyond the vapor source, as defined in NFPA 34.'' OSHA believes that, for optimal employee protection and consistency with the requirements of former paragraphs 1910.94(d)(3) and 1910.108(b)(1), no area above the dip tank may have a concentration greater than 25% of the lower flammable limit for the substance in the tank. Additionally, paragraph 1910.124(b)(4) of the final standard states, as did the proposal, that the employer who complies with NFPA 34–1995 also meets the mechanical-ventilation requirements of the OSHA standard.

Proposed paragraph 1910.123(b)(2) (final paragraph 1910.124(b)(3)), which concerned tank covers and materials that may be used as alternatives to ventilation in some circumstances, elicited only one comment. This commenter (Ex. 4–4) stated that ''[w]hile a tank cover will reduce ignitable vapors, it can be argued that the floating beads [allowed by the standard to replace or supplement ventilation in some cases] will increase the surface area from which vapors can evolve.'' According to the final rule, however, tank covers or floating materials

(including floating beads) cannot be used when these controls do not ''maintain the airborne concentrations of the hazardous material and the worker's exposure below the limits specified in paragraphs (b)(1) and (b)(2) of this section.'' OSHA, therefore, believes that this commenter's concern has been addressed by this revision to the final rule.

Proposed paragraph 1910.123(b)(3) (final paragraph 1910.124(b)(4)), which contained ventilation specifications, elicited only one comment (Ex. 4–4); this commenter urged OSHA to adopt the ventilation design and installation requirements in NFPA 91. OSHA reviewed the most recent NFPA 91 consensus standard and believes that it is a useful reference for constructing and installing ventilation systems; unlike the references specified in final paragraph 1910.124(b)(4), however, NFPA 91 does not contain the information necessary to determine the volumes and flow rates necessary to remove vapor hazards from the workplace.

Proposed paragraph 1910.123(b)(4) (final paragraph 1910.124(b)(5)), which addressed mechanical ventilation, received only one comment (Ex. 4–7). This commenter stated that this paragraph does not allow employers to use dilution (non-mechanical) ventilation to control low-level exposures to airborne contaminants. This is a misinterpretation of proposed paragraph 1910.123(b)(4), however, because that paragraph does not require that mechanical ventilation be used, only that it ''draw the flow of air into a hood or exhaust duct'' when it *is* used. Therefore, non-mechanical dilution ventilation (e.g., open windows and doors) can be used when it meets the specifications of final paragraphs 1910.124(b)(1) and (b)(2).

Proposed paragraph 1910.123(c)(2)(i) (final paragraph 1910.124(c)(2)(i)), which specified that recirculated exhaust air be free of solid particulates, was the subject of a comment (Ex. 4–7) that stated ''this requirement is unnecessary unless the particulate poses a health or fire hazard.'' OSHA agrees that this requirement applies only to particulates that pose health and fire hazards to employees, and has revised the final provision accordingly.

Proposed paragraph 1910.123(c)(3)(iii), which required that the flow rate of make-up air be measured when an exhaust hood is installed, elicited two comments (Exs. 4–3 and 4–10). The first commenter (Ex. 4–3) endorsed the proposed revision because it would improve compliance, while the second commenter (Ex. 4–10) noted, ''[For small operations, t]here [may be] numerous exhausts and numerous sources of make-up air. In these cases the flow rate of make up air can not be measured.''

OSHA has decided that this provision is redundant with the requirements of final paragraph 1910.124(d)(1), which requires that the correct airflow be evaluated and maintained to ensure that the volume of outside air is at least 90 percent of the volume of the exhaust air. Therefore, the paragraph as proposed is not included in the final rule.

Proposed paragraph 1910.123(d) (final paragraph 1910.124(e)), which addressed employee entry into dip tanks, received only one comment (Ex. 4–7). This commenter asked whether the permit requirements of OSHA's Permit-Required Confined Spaces standard (29 CFR 1910.146) will apply to dip tanks because that standard defines confined-space entry as ''breaking the plane of the confined space with any part of the body.'' This commenter observed that ''[i]n dipping and coating operations employees may be required to break the plane of the tank to dip or coat parts.''

According to paragraph (b) of 29 CFR 1910.146, a permit-required confined space must be ''large enough and so configured that an employee can bodily enter and perform assigned work,'' have ''limited or restricted means for entry or exit,'' and not be ''designed for continuous employee occupancy.'' In response to this commenter, OSHA notes that entry into dip tanks that meet this definition must be done in accordance with the requirements of 29 CFR 1910.146, and that the standard would be cited if improper entry occurs.

Proposed paragraph 1910.123(e) (final paragraph 1910.124(f)), which addressed training requirements for employees who work in or near a vapor area, was found by two commenters (Exs. 4–1 and 4–7) to duplicate other OSHA training requirements. The proposed provision would have required employers to instruct employees working in or near a vapor area in the hazards of their jobs, first-aid products, and PPE. One commenter (Ex. 4–7) stated that ''[t]he requirements of 29 CFR 1910.1200 already require [hazard training]. This [proposed] requirement is duplicative and burdensome. [Also, 29 CFR 1910.38 and 1910.151 specify first-aid procedures.]''

OSHA agrees that the proposed requirement for hazard training would have duplicated the provisions of paragraph (h) of the Hazard Communication standard, 29 CFR 1910.1200, and has therefore deleted it from the final Dipping and Coating Operations standard. However, OSHA does not agree that paragraph (a) of section 1910.38 addresses first aid directly; instead, it requires that designated employees be trained to assist ''in the safe and orderly emergency evacuation of [other] employees.'' Paragraph (c) of section 1910.151 requires that ''a person or persons be trained to render first aid'' when ''an infirmary, clinic, or hospital is not in near proximity * * * for the treatment of all injured employees * * *.'' The first-aid provision of section 1910.151, therefore, does not duplicate the proposed requirement, which stated that ''all employees who work in or near a vapor area must receive ''appropriate first-aid instruction.'' Adopting the first-aid requirements of section 1910.151 in lieu of the proposed requirement would reduce substantially the protection afforded to employees by this paragraph of the final rule, and OSHA has thus not adopted this suggestion.

For clarity, OSHA has revised the language of paragraph 1910.124(f) to state that employees must ''know'' about the first-aid procedures appropriate to the dipping and coating hazards to which they are exposed. This revision eliminates the proposed provision, which would have required employers to document that employees involved in dipping or coating operations had received the required instruction.

Proposed paragraph 1910.123(f), which specified requirements for personal protective equipment (PPE), elicited two comments (Exs. 4–1 and 4–7) recommending that the provision be dropped because it duplicated the hazard-assessment, training, and PPE requirements of 29 CFR subpart I. Two other commenters (Exs. 4–10 and 4–11) noted that a hazard assessment conducted under the proposed provision would require PPE when employees were exposed to minor hazards, such as soap-and-water solutions. A fifth commenter (Ex. 4–13) recommended that the ANSI consensus standard for eye and face protection, ANSI Z87.1–1989, be referenced in this paragraph.

OSHA agrees that this proposed paragraph would have duplicated the requirements of 29 CFR 1910, subpart I, and has accordingly deleted it from the final standard. OSHA notes that the requirements of 29 CFR 1910, subpart I, including the Respiratory Protection requirements at section 1910.134, have always applied, as appropriate, to employers who are involved in dipping or coating operations, and will continue to do so. Paragraph (b)(1) of section 1910.133 (''Eye and Face Protection''),

which applies to employers who engage in dipping or coating operations, refers to ANSI Z87.1–1987; thus, adding a cross-reference to the ANSI standard is not necessary, as suggested by one commenter (Ex. 4–1).

Proposed paragraph 1910.123(g) (final paragraph 1910.124(g)), which addressed hygiene facilities, elicited two comments. The first commenter (Ex. 4–3) stated that proposed paragraph (g)(3), which would have regulated washing facilities, was too vague and recommended that a minimum number of basins be specified. The second commenter (Ex. 4–7), however, found that proposed paragraph (g)(3) was ''well stated'' but that proposed paragraphs (g)(1) and (g)(2), which would have required storage, emergency-shower, and eye-wash facilities, were ''unnecessary and burdensome.''

On review of these provisions (proposed paragraphs (g)(1) and (g)(2)), OSHA has decided to narrow their application to those employees exposed to liquids that ''burn, irritate, or otherwise [are] harmful to the skin.'' This revision is consistent with section 1910.94(d) of the former rule.

To clarify the requirement in proposed paragraph (g)(3) and to ensure that an adequate number of hygiene facilities is provided to employees, OSHA has revised this provision to specify, consistent with former section 1910.94(d)(9)(ix), that ''at least one basin with a hot-water faucet [be provided] for every 10 employees who work with such liquids.''

Proposed paragraph 1910.123(h) (final paragraph 1910.124(h)), which specified physical examination and first-aid requirements, received two comments (Exs. 4–7, 4–10) that were concerned with the regulatory burden imposed by the proposed paragraph. One commenter stated that ''[p]hysical exams may be required dependent on the health risk but certainly [are] not required for cleaning operations using mild surfactants'' (Ex. 4–7). This commenter noted that the medical service and first-aid requirements of section 1910.151 appear to duplicate the provisions of this paragraph, and that many employers ''utilize first aid providers who bring their supplies with them to an emergency.'' The second commenter (Ex. 4–10) believed that the requirement proposed in paragraph (h)(4), which would have required first-aid supplies to be located near dipping and coating operations, contradicted the provision in proposed paragraph (h)(2) for a properly designated person to treat skin abrasions, cuts, rashes, or open sores, stating that ''[t]he presence of first aid supplies near the operation would encourage administration of first aid by the operators [who] are not necessarily the properly designated people.''

OSHA has not adopted the suggestions of these commenters because doing so would reduce the level of employee protection provided by the final rule. For example, even a mild surfactant may worsen a serious skin lesion and cause it to require the attention of a health care provider. Further, requiring that the first-aid kit be located ''near the dipping and coating operations'' could facilitate more rapid intervention in a medical emergency than merely having such supplies ''readily available,'' as required by paragraph (b) of section 1910.151. The Agency notes, however, that paragraph (h)(4) of the final rule specifies only that the first-aid supplies be ''appropriate.'' This means that less hazardous dipping or coating operations would be likely to require fewer first-aid supplies than more hazardous operations. In response to the comments in Ex. 4–10, the Agency finds that final rule paragraphs 1910.124 (h)(2) and (h)(4) do not contradict each other; paragraph (h)(2) addresses the treatment of skin abrasions, cuts, rashes, or open sores to prevent skin exposure to hazardous chemicals, while paragraph (h)(4) designates the location of first-aid supplies to be used after an injurious exposure has occurred.

As noted above in the summary and explanation for final rule paragraph 1910.124(g), the Agency has determined that these requirements apply only when specific liquids are being used. Accordingly, paragraph 1910.124 (h) of the final rule has been revised to require physical examination and first aid only when employees are exposed to ''liquids that may burn, irritate, or otherwise harm their skin[.]''

Proposed paragraph 1910.123(j) (final paragraph 1910.124(j)), addressed the inspection and maintenance of dipping and coating operations, including quarterly inspections of ventilation systems. One commenter (Ex. 4–3) endorsed the proposed language because it would improve compliance, while another commenter (Ex. 4–7) found the requirement ''too prescriptive'' and recommended that it be replaced with more performance-based language. This commenter stated that ''[i]n some corrosive atmospheres[,] quarterly [inspections] would be too infrequent. In other non-corrosive atmospheres[,] quarterly [inspections] would be too frequent and a waste of maintenance resources'' (Ex. 4–7).

The proposed requirement was adapted from paragraph (d)(8)(i) of former section 1910.94, which specified inspections ''[a]t intervals of not more than 3 months operation.'' Consequently, this commenter (Ex. 4–7) is recommending a substantive revision to the standard that is beyond the scope of this rulemaking. OSHA also believes that the final rule's phrase, ''at least quarterly,'' imposes a duty on employers to inspect at more frequent intervals when doing so is necessary ''to ensure that proper rates are maintained.''

Proposed paragraph 1910.124 (final paragraph 1910.125), which specified requirements for dipping and coating operations that use flammable or combustible liquids, elicited only one comment (Ex. 4–4). This commenter encouraged OSHA to reinstate the former rule's requirement for bottom drains, at least for large tanks, and to adopt the language of NFPA 34–1995, section 3–6, because ''draining the tank, particularly a large one, also removes a substantial amount of the fuel from the fire area quickly. Deleting this requirement presents a much greater risk for a severe and long-lived fire.''

OSHA agrees with the commenter that properly installed bottom drains are necessary to quickly remove the substantial quantities of flammable and combustible liquids often present in large dip tanks; such removal reduces the risk of severe and long-lived fires that, under some conditions (e.g., delayed evacuation/exit), could pose serious risks to employees. Accordingly, paragraph 1910.125(c) of the final rule requires bottom drains for large dip tanks. However, unlike paragraph (c)(3) of former section 1910.108 or section 3–6 of the NFPA standard, this paragraph of the final rule uses performance-based language. For example, the final rule requires only that tanks discharge to a safe location, not to ''closed properly vented salvage tanks or to a safe location outside,'' as specified by the former standard. The Agency believes that the term ''safe location'' includes ''closed and vented salvage tanks.'' The former standard and NFPA 34–1995 also specify the pipe sizes that must be used to drain dip tanks of various capacities, while this paragraph of the final rule requires only that the pipes be ''correctly sized'' to remove the flammable liquid. The revised language does specify, however, that the pipes be capable of removing the dip tank's contents ''within five minutes after the fire begins,'' consistent with the language in NFPA 34–1995. This revision thus replaces the table in former paragraph 1910.108(c)(3)(iii) that specified correct pipe size and clarifies the requirement in former paragraph

1910.108(c)(3)(i) that ''bottom drains [be] * * * arranged to quickly drain the tank * * *''

Paragraph 1910.125(c) of the final rule retains the exception from the bottom-drain requirements for dip tanks that contain highly viscous liquids. To clarify the provision, however, OSHA has replaced the phrase ''makes this impractical'' with the language ''does not allow the liquid to flow or be pumped easily.'' Also included in this paragraph of the final rule is the provision in NFPA 34–1995 that excepts dip tanks that have automatic-closing doors from the bottom-drain requirements; former section 1910.108 did not have this exception. OSHA believes that automatic-closing doors eliminate fire and explosion hazards if they meet the requirements of paragraph (f)(3) of final section 1910.125 and, therefore, will protect employees at least as well as bottom drains.

Proposed paragraph 1910.124(b)(5) (final paragraph 1910.125(b)(2)), which addressed the clogging of overflow pipes, elicited only the following comment (Ex. 4–4): ''[The NFPA Committee is] not aware of any problems with firefighting foam clogging the overflow pipe on a dip tank.'' The proposed provision was adopted from a requirement in paragraph (g)(3) of former section 1910.108, and OSHA believes that it is necessary to address the possibility of overflow pipe blockage. Paragraph 1910.125(b)(2) of the final rule thus includes the provision as proposed.

Proposed paragraph 1910.124(d) (final paragraph 1910.125(e)), which required the control of ignition sources, received only one comment (Ex. 4–4). This commenter stated that OSHA should substitute chapter 4 of NFPA 34–1995 for this entire paragraph of the final rule because, in the commenter's opinion, the NFPA chapter provides ''diagrams that greatly simplify interpreting the requirements and establishing the limits of the hazardous (classified) location.'' OSHA finds that by defining the vapor area and the hazardous area surrounding the vapor area in objective terms, paragraph 1910.125(e) of the final rule will provide employers with the information necessary to identify hazardous areas and sources of ignition. Paragraph 1910.125(e) of the final rule also specifies the means of controlling ignition sources. OSHA has therefore not accepted this commenter's suggestion.

Proposed paragraph 1910.124(d)(2) (final paragraph 1910.125(e)(1)(i)), which specified the area that must be free of ignition sources, elicited several comments (Exs. 4–3, 4–7, 4–11). One commenter (Ex. 4–3) generally endorsed the proposed provision. Two commenters, however, recommended that the paragraph be revised. The first of these commenters (Ex. 4–7) stated that the requirement should be performance based and recommended the following language: ''Open flames must be kept out of the vapor area * * * to prevent ignition.'' The second commenter (Ex. 4–11) believed that the proposed paragraph expanded the requirement in former section 1910.108 because it did not define hazardous areas by the quantity of flammable vapors present; this commenter recommended that OSHA instead adopt ''the same distances as described in NFPA 34–1995.''

OSHA believes that keeping ignition sources (including open flames) out of areas that are within 20 feet of the vapor area, which is a requirement taken from paragraphs (e)(1)(i) and (e)(2) of former section 1910.108, will afford employees more protection than merely excluding ''open flames'' from the vapor area (as specified in Ex. 4–7's recommended language). OSHA believes that the revised definition of ''vapor area'' in the final rule, which states that a vapor area is an ''area where the vapor concentration exceeds 25% of the LFL,'' when used in combination with the definition of an ''adjacent area'' as an ''area within 20 feet * * * of a vapor area,'' will make paragraph 1910.125(e) of the final rule consistent with the requirements of former paragraph 1910.108(e)(2) and satisfy these commenters' concerns.

Proposed paragraph 1910.124(d)(6) (final paragraphs 1910.125(e)(4)(ii) and (e)(4)(iii)), which delineated the procedure for disposing of rags and other contaminated material, was found by the single commenter (Ex. 4–3) to be a ''[g]ood change, [because it] removes all confusion.'' The language of the final rule is thus unchanged from that proposed.

Proposed paragraph 1910.124(d)(7) (final paragraph 1910.125(e)(5)), which prohibited smoking in a vapor area, elicited one comment (Ex. 4–13). This commenter recommended that the no-smoking signs required by this paragraph conform to the characteristics for such signs specified in the ANSI Z535.2–1991 consensus standard.

The proposed no-smoking provision was adopted from paragraph (f)(4) of former section 1910.108. The Agency also regulates warning signs in § 1910.145 to ensure that warning signs used in general industry conform with uniform specifications and are readily understood by employees. OSHA believes, therefore, that employer familiarity with the former standard and the provisions of § 1910.145 will enhance their compliance with final paragraph 1910.125(e)(5). Adopting ANSI Z535.2–1991 would require employers to comply with new sign requirements, thereby increasing their regulatory burden. Adopting ANSI Z535.2–1991 would require substantial changes to the former rule and, therefore, is beyond the scope of this plain-language rulemaking. (OSHA also notes that ANSI has since issued an updated version of this consensus standard, ANSI Z535.2–1998. Either version (1991 or 1998) will be acceptable for the design of no-smoking signs to comply with final paragraph 1910.125(e)(5).)

Proposed paragraph 1910.124(e)(1)(i) (final paragraph 1910.125(f)(1)), which prescribed fire protection for dip tanks having a specified volume or surface area, received only one comment (Ex. 4–4). This commenter stated that section 7–6 of NFPA 34–1995 should be substituted for this paragraph because the NFPA standard ''covers the smaller processes and allows a choice between a self-closing cover or a fire suppression system.'' OSHA based the size limitations specified in this requirement on paragraphs (c) and (h) of former section 1910.108; revising this requirement to cover smaller dip tanks would represent a substantive change to the former rule and is beyond the scope of this plain-language rulemaking.

Proposed paragraph 1910.125(d)(5) (final paragraph 1910.126(d)(5)), required that solvent-cleaning and vapor-degreasing tanks ''with a vapor area larger than 4 feet^2 (.38m^2) . . . have cleanout or sludge doors located near the bottom of each tank.'' One commenter (Ex. 4–1) criticized the proposed language for using the term ''vapor area'' in a manner that was inconsistent with the definition of the term in proposed paragraph 1910.122(d). After reviewing the proposed paragraph, OSHA decided to delete it from the final standard because the Agency determined that it served no valid safety and health purpose (see the explanation of this action below in paragraph (j) of Part 4).

Proposed paragraph 1910.125(g)(7) (final paragraph 1910.126(g)(6)), which specified the fences, rails, or guards required in paint-detearing operations, received only a single comment (Ex. 4–13). This commenter recommended that such fences, rails, or guards be installed according to the ANSI A1264.1–1995 consensus standard. The ANSI consensus standard, which is more detailed than the final rule's provision,

would require construction of a complete guardrail system for this purpose. OSHA believes that it is appropriate to permit a single rail when doing so will safely isolate employees from detearing operations. Accordingly, OSHA has not made the suggested change to the final rule.

Part 3

The following discussion addresses general comments on this plain language rulemaking.

One commenter (Ex. 4–4) recommended that ''OSHA abandon its attempt to re-write portions of a 25-year-old standard'' to conform to various parts of NFPA 34–1995 and instead adopt NFPA 34–1995 in its entirety. This commenter also encouraged OSHA to include references in the final rule stating that ''any ventilation system designed, installed, and operated in accordance with NFPA 34 and NFPA 91 meets the requirements of [this rule] for fire protection purposes,'' and ''that any dipping/coating system that meets the requirements of NFPA 34 also meets [the requirements of this rule].'' In a related matter, this commenter and another commenter (Ex. 4–13) asked why this rulemaking did not comply with the National Technology Transfer and Advancement Act of 1996 (NTTAA), which mandates that Federal regulatory agencies ''use technical standards that are developed or adopted by voluntary consensus standards bodies. . . .''

In response, OSHA notes that the NTTAA's requirements do not apply where the Agency determines that use of a consensus standard ''is inconsistent with applicable law or otherwise impractical . . . .'' (15 U.S.C. 272 note.) In the case of this plain-language rewrite, adopting the recommended language would result in substantive revisions to the former standards and would therefore be beyond the scope of this rulemaking. In addition, the recommended NFPA standards use specification language, which is inconsistent with OSHA's emphasis on performance-oriented language in this rulemaking.

Part 4

OSHA has made various technical and editorial corrections to the regulatory text of the final rule.

In this final rule, OSHA has made the following changes to clarify the rule's meaning, to make the rule easier to follow, and to correct errors in the proposed rule. Specifically, OSHA has:

(a) Redesignated the section numbers in the final rule as 29 CFR 1910.122 to 29 CFR 1910.126 instead of 29 CFR 1910.121 to 29 CFR 1910.125. This revision is necessary because OSHA has reserved section 1910.121 for a future rule addressing the accreditation of training programs for workers involved in hazardous-waste operations and emergency-response activities.

(b) Removed proposed paragraph 1910.122(c)(2) from the final rule. The proposed paragraph, which was adopted from former paragraph 1910.94(d)(13)(ii), excepted surface-coating operations covered by 29 CFR 1910.107 from the scope of the standard. OSHA removed this provision from the final standard because the Agency interpreted the phrase ''excluding open-tank operations'' in former paragraph 1910.94(d)(13)(ii) to mean that the exception applied only when surface-coating operations do not involve dip tanks. OSHA believes that it is unnecessary to specify that the final standard, which regulates dip-tank operations, does not apply to surface-coating operations that do not involve dip tanks.

(c) Added two definitions to paragraph 1910.123(d) of the final rule. The first definition, of the term ''adjacent area,'' clarifies the use of this term in paragraphs 1910.125(e)(1)(i) and (e)(1)(ii) of the final rule, and is consistent with the definition of ''adjacent area'' in paragraph (e)(2) of former section 1910.108. In both definitions, an adjacent area is defined as distinct from, and excluding, the vapor area.

The second definition, of the pronoun ''you,'' was added because the final rule uses the ''you'' form of the question-and-answer plain-language style, as recommended in Federal plain-language guidance. This definition makes clear that employers are responsible for implementing the requirements of the final rule, as mandated by the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 *et seq.*).

(d) Removed the proposed definition of ''safe distance'' from the final rule to avoid confusion when the term is used in the context of spark production (see paragraphs 1910.126(g)(3) and (g)(4)(iii) of the final rule), as opposed to its use in the context of the removal of an employee from a fire hazard (see paragraph 1910.125(a)(4) of the final rule). The meaning of the term now is specified separately in paragraphs 1910.126(a)(4), (g)(3), and (g)(4)(iii) of the final rule.

(e) Restored the requirement in former paragraph 1910.94(d)(9)(vii) to limit the water pressure in a water hose used for emergency eye washing and showering to 25 pounds per square inch (1.62 k/cm^2) or less; this limit was inadvertently left out of the proposal. OSHA added this requirement to paragraph 1910.124(g)(2) of the final rule because the pressure limitation is necessary to prevent possible eye injury while using the hose.

(f) Removed from the final rule the first sentence in proposed paragraph 1910.124(j)(1), which required employers to ''inspect [dipping and coating] equipment and promptly correct any deficiencies . . . [.]'' This provision is redundant in large part with the requirement in proposed paragraph 1910.124(j)(1)(ii) ''[T]o inspect all dipping and coating equipment . . . periodically.'' The periodic inspection requirement is specified in paragraph 1910.124(j)(3) of the final rule. The proposed requirement to ''promptly correct any deficiencies'' was added to final paragraph 1910.124(j)(3) because paragraph (f)(3) of former section 1910.108 required employers to promptly correct any defects found during periodic inspections of dip tanks.

(g) Moved an exception from the requirements to control ignition sources was from the note to proposed paragraph 1910.125(a) to paragraph 1910.125(e)(1)(i) of the final rule. OSHA determined that the exception in the former rule (paragraph 1910.108(e)(1)(i)) actually applies to electrostatic paint-detearing operations instead of hardening and tempering tanks. Accordingly, the exception has been moved to paragraph 1910.125(e)(1)(i) of the final rule, which specifies controls for electrical sources of ignition.

(h) Restored, in final rule paragraph 1910.126(a)(5), a provision inadvertently excluded from proposed paragraph 1910.125(a)(5) that permitted bottom drains in hardening or tempering tanks to be combined with the oil-circulating system.

(i) Removed from the final rule the note in proposed paragraph 1910.125(d)(2) because the combustion chamber must be air tight (except for the flue opening) regardless of the solvent used in vapor degreasing tanks.

(j) Removed proposed paragraph 1910.125(d)(5) from the final rule. The proposed paragraph required that solvent-cleaning and vapor-degreasing tanks that have a surface area larger than 4 feet^2 (.38 m^2) be equipped with ''cleanout or sludge doors located near the bottom of the tank.'' OSHA determined that the purpose of this provision, which was adopted from former paragraph 1910.94(d)(12)(iv), was to provide employers with a convenient means of cleaning residue from the bottom of the tanks; therefore,

the provision served no valid safety and health purpose.

Part 5

Comparing provisions of the former rules and the final rule.

The following tables show the paragraph designations of the former rules and the corresponding provisions of the final rule. Table I covers the requirements from former section 1910.94(d), and Table II lists the provisions from former section 1910.108. Table III contains the provisions of final sections 1910.123 through 1910.126 and the sources for each provision in former sections 1910.94(d) and 1910.108.

TABLE I

Former Section 1910.94(d)	Final Sections 1910.123 through 1910.126
(d) Open surface tanks. (1) General (i) Application.	1910.123(a) and (b).
(d)(1)(ii) Exhaust system construction	1910.124(b)(4).
(d)(2)(i) to (d)(2)(vii) Classification of open-surface tank operations	Covered by standards referenced in 1910.124(b)(4).
(d)(3) Ventilation	1910.124(b)(1) and (b)(2).
(d)(4)(i) to (d)(4)(v) Control requirements	Covered by standards referenced in 1910.124(b)(4).
(d)(5) Spray cleaning and degreasing	1910.126(f).
(d)(6) Control means other than ventilation	1910.124(b)(3).
(d)(7)(i) and (d)(7)(ii) System design	1910.124(b)(4).
(d)(7)(iii) Protect against exhaust system fire	1910.124(b)(6).
(d)(7)(iv) Exhaust system meets consensus standards	1910.124(b)(4).
(d)(8) Operation (i) Maintain airflow.	1910.124(j)(1) and (j)(2).
(d)(8)(ii),(iii) Exhaust discharge; makeup air	1910.124(c) and (d).
(d)(9) Personal protection. (i) Training	1910.124(f).
(d)(9)(ii) Protective shoes	Deleted, covered by subpart I of 29 CFR 1910.
(d)(9)(iii) Protective gloves	Deleted, covered by subpart I of 29 CFR 1910.
(d)(9)(iv) Protective garments	Deleted, covered by subpart I of 29 CFR 1910.
(d)(9)(v) Protective goggles	Deleted, covered by subpart I of 29 CFR 1910.
(d)(9)(vi) Respirators	Deleted, covered by subpart I of 29 CFR 1910.
(d)(9)(vii) Emergency showers	1910.124(g)(2).
(d)(9)(viii) Physician authorization, examination	1910.124(h)(1), (h)(2), and (h)(4).
(d)(9)(ix) Washing facilities	1910.124(g)(3).
(d)(9)(x) Locker space	1910.124(g)(1).
(d)(9)(xi) First aid	1910.124(h)(3).
(d)(10) Special precautions for cyanide	1910.126(e).
(d)(11) Inspection, maintenance, and installation. (i) Floors	Covered by section 1910.22(a).
(d)(11)(ii) Tank cleaning	1910.124(i).
(d)(11)(iii) Test tanks before entering	1910.124(e).
(d)(11)(iv) and (d)(11)(v) Entering tank	Covered by section 1910.146.
(d)(11)(vi) Welding operations	1910.124(j)(4) and (j)(5).
(d)(12) Vapor degreasing tanks. (i) Vapor control	1910.126(d)(1).
(d)(12)(ii) Keep gas vapors away from heating units	1910.126(d)(2) and (d)(3).
(d)(12)(iii) Do not create excessive vapors	1910.126(d)(4).
(d)(12)(iv) Solvent-cleaning and vapor-degreasing tanks must have cleanout or sludge doors.	Deleted; unnecessary.
(d)(13) Scope. (i) Coverage	1910.123(a), (b), and (c).
(d)(13)(ii) Molten materials operations defined	1910.123(c).
(d)(13)(iii) Surface coating operations defined	Deleted; unnecessary.

TABLE II

Former section 1910.108	Final sections 1910.123 through 1910.126
(a) Definitions applicable to this section-(1) Dip tank	1910.123(d).
(a)(2) Vapor area	1910.123(d).
(a)(3) Approved	1910.123(d).
(a)(4) Lister	Deleted; unnecessary
(b) Ventilation-(1) Vapor area ventilation	1910.124(b)(1), (b)(3), (b)(4), and (b)(5), and 1910.125(d)(2)
(b)(2) Ventilation combined with drying	1910.125(e)(3).
(c) Construction of dip tanks. (1) General	1910.124(a) and 125(a).
(c)(2) Overflow pipes. (i) Tank capacity	1910.125(b)(1).
(c)(2)(ii) Overflow pipe capacity	1910.125(b)(2)(i).
(c)(2)(iii) and (c)(2)(iv) Overflow pipe cleaning and location	1910.125(b)(2)(ii) and (b)(2)(iii).
(c)(3)(i) to (c)(3)(iii) Bottom drains	1910.125(c).
(c)(4) Salvage tanks	Deleted; property protection.
(c)(5) Automatic extinguishing facilities	1910.125(f)(1) and (f)(3).
(c)(6) Conveyor systems	1910.125(d).
(c)(7) Heating dip tank liquids	1910.125(g).
(d) Liquids used in dip tanks, storage, and handling	1910.125(e)(2).
(e) Electrical and other sources of ignition. (1) Vapor areas. (i) No open flames, explosion proof equipment.	1910.125(e)(1).
(e)(1)(ii) Electrical equipment in vapor areas	1910.125(e)(1)(i).
(e)(2) Adjacent areas	1910.125(e)(1).
(f) Operations and maintenance. (1) General	1910.125(e)(4)(i).
(f)(2) Waste cans	1910.125(e)(4)(ii) and (e)(4) (iii).

TABLE II—Continued

Former section 1910.108	Final sections 1910.123 through 1910.126
(f)(3) Inspection of dip tanks	1910.124(j)(1) and (3).
(f)(4) Warning signs	1910.125(e)(5).
(g) Extinguishment. (1) Extinguishers	1910.125(f)(2)(i).
(g)(2) Automatic water spray extinguishing systems	1910.125(f)(2)(ii).
(g)(3) Automatic foam extinguishing systems	1910.125(b)(2) and 1910.125(f)(2)(ii).
(g)(4) Automatic carbon dioxide systems	1910.125(f)(2)(ii).
(g)(5) Dry chemical extinguishing systems	1910.125(f)(2)(ii).
(g)(6) Dip tank covers. (i) Automatically activated	1910.125(f)(3) and (f)(3)(i).
(g)(6)(ii) to (g)(6)(iv) Construction and use of covers	1910.125(f)(3)(ii) and (f)(3)(iii).
(h) Special dip tank applications. (1) Hardening and tempering tanks. (i) Location	1910.126(a)(1)(i) and (a)(1)(ii).
(h)(1)(ii) Noncombustible hood and vent	1910.126(a)(1)(iii).
(h)(1)(iii) Temperature of cooling medium	1910.126(a)(4).
(h)(1)(iv) High temperature limit switch	1910.126(a)(2) and (a)(3).
(h)(1)(v) Automatic extinguishing facilities	1910.125(f)(1)(ii) and (f)(2)(ii).
(h)(1)(vi) No pressurized air	1910.126(a)(6).
(h)(1)(vii) Bottom drain	1910.125(c)(3), and 1910.126(a)(4) and (a)(5).
(h)(2) Flow coat; general. (i) All preceding standards apply	1910.126 (introductory paragraph).
(h)(2)(ii) Strong and rigid piping	1910.126(b)(2).
(h)(2)(iii) Paint pumped at low pressure	1910.126(b)(1).
(h)(2)(iv) Area of dip tank	Covered by section 1910.123(d) (definition of ''dip tank'').
(h)(3) Electrostatic apparatus	1910.126(g).
(h)(4) Roll coating	1910.126 (introductory paragraph) and 1910.126(c).

TABLE III

Final sections 1910.123 through 1910.126 (final section 1910.122 contains a table of contents for final sections 1910.123 through 1910.126)	Former sections 1910.94(d) and 1910.108 (or applicable NFPA standards)
1910.123 Dipping and coating operations: Coverage and definitions:	
(a) Does this standard apply to me?	
(a)(1) Using a liquid in a dip tank	1910.94(d)(1)(i) and (d)(13)(i).
(a)(2) Draining or drying an object	1910.94(d)(13)(i).
(b) What operations are covered?	1910.94(d)(13)(i).
(c) What operations are not covered? Operations using molten material	1910.94(d)(13)(i) and (d)(13)(ii).
(d)How are terms used in sections 1910.123 through 1910.126 defined?	1910.108(a).
''Adjacent area''	1910.108(e)(2).
''Approved''	1910.108(a)(3).
''Autoignition temperature''	NFPA 325–1994.
''Combustible liquid''	1910.1200(c).
''Dip tank''	1910.108(a)(1).
''Flammable liquid''	1910.1200(c).
''Flashpoint''	1910.1200(c).
''Lower flammable limit (LEL)''	NFPA 325–1994.
''Vapor area''	1910.108(a)(2).
''You''	
1910.124 General requirements for dipping and coating operations:	
(a) What construction requirements apply to dip tanks?	1910.108(c)(1).
(b) What ventilation requirements apply to vapor areas?	
(b)(1) Keep airborne concentrations below 25% of the LFL	1910.94(d)(3) and 1910.108(b)(1)
(b)(2) Meet the levels specified in part 1910, subpart Z.	1910.94(d)(3).
(b)(3) Use of tank covers or floating materials	1910.94(d)(6).
(b)(4) Mechanical ventilation requirements	1910.94(d)(1)(ii), (d)(2), (d)(4), and (d)(7)(i) to (d)(7)(iv); and 1910.108(b)(1).
(b)(5) Airflow requirements for mechanical ventilation	1910.108(b)(1).
(b)(6) Requirements for an independent exhaust system	1910.94(d)(7)(iii).
(c) What requirements must I follow to recirculate exhaust air into the workplace?	
(c)(1) Meet the requirements of paragraph (b) of this section	1910.94(d)(3) and (d)(8)(ii), and NFPA 34–1995.
(c)(2) Other requirements for recirculated exhaust air	NFPA 34–1995.
(c)(3) Requirements for an alarm	NFPA 34–1995.
(d) What must I do when I use an exhaust hood?	
(d)(1) Volume requirements	1910.94(d)(8)(iii).
(d)(2) Prevent damage to exhaust hoods	1910.94(d)(8)(iii).
(e) What requirements must I follow when an employee enters a dip tank?	1910.94(d)(11)(iii) to (d)(11)(v).
(f) What first-aid procedures must my employees know?	1910.94(d)(9)(i).
(g) What hygiene facilities must I provide?	
(g)(1) Storage space	1910.94(d)(9)(x).
(g)(2) Emergency shower and eye-wash station	1910.94(d)(9)(vii).
(g)(3) Washing facilities	1910.94(d)(9)(ix).
(h) What treatment and first aid must I provide?	
(h)(1) For sores, burns, or other skin lesions	1910.94(d)(9)(viii).

TABLE III—Continued

Final sections 1910.123 through 1910.126 (final section 1910.122 contains a table of contents for final sections 1910.123 through 1910.126)	Former sections 1910.94(d) and 1910.108 (or applicable NFPA standards)
(h)(2) For small skin abrasions, cuts, rashes, or open sores	1910.94(d)(9)(viii).
(h)(3) First-aid supplies	1910.94(d)(9)(xi).
(h)(4) Periodic examinations for employees exposed to chromic acid	1910.94(d)(9)(viii).
(i) What must I do before an employee cleans a dip tank?	
(i)(1) Drain the dip tank and open cleanout doors	1910.94(d)(11)(ii).
(i)(2) Ventilate vapor pockets	1910.94(d)(11)(ii).
(j) What must I do to inspect and maintain my dipping or coating operation?	
(j)(1) Inspect ventilation hoods and ductwork	1910.94(d)(8)(i) and 1910.108(f)(3).
(j)(2) Ensure an adequate airflow	1910.94(d)(8)(i).
(j)(3) Periodically inspect dipping and coating equipment	1910.108(f)(3).
(j)(4) Protect employees from toxic exposures during welding, burning, or open-flame work.	1910.94(d)(11)(vi).
(j)(5) Remove solvents and vapors before welding, burning, or open-flame work.	1910.94(d)(11)(vi).
1910.125 Additional requirements for dipping and coating operations that use flammable or combustible liquids:	
(a) What type of construction material must be used in making my dip tank?	1910.108(c)(1).
(b) When must I provide overflow piping?	
(b)(1) When overflow pipes are required	1910.108(c)(2)(i).
(b)(2) Overflow pipe requirements	1910.108(c)(2)(ii), (c)(2)(iii), and (c)(2)(iv).
(c) When must I provide a bottom drain?	
(c)(1) For dip tanks over 500 gallons (1893 L), with specified exceptions	1910.108(c)(3)(i); NFPA 34.
(c)(2) Bottom drain requirements	1910.108(c)(3)(ii); NFPA 34.
(c)(3) Manual and automatic operation	1910.108(c)(3)(i).
(c)(4) Use of automatic pumps	1910.108(c)(3)(i).
(d) When must my conveyor systems shut down automatically?	
(d)(1) When there is a fire	1910.108(c)(6).
(d)(2) When the ventilation rate drops	1910.108(b)(1) and (c)(6).
(e) What ignition and fuel sources must be controlled?	
(e)(1) Ignition sources in the vapor area and any adjacent area	1910.108(e)(1) and (e)(2).
(e)(2) Electrical bonding and grounding of portable containers	1910.108(d).
(e)(3) Ignition from a heating system	1910.108(b)(2).
(e)(4) Ignition from combustible debris and stock, rags and other contaminated material, and the content of waste cans.	1910.108(f)(1) and (f)(2).
(e)(5) Prohibit smoking in a vapor area	1910.108(f)(4).
(f) What fire protection must I provide?	
(f)(1) Tanks covered by these requirements	1910.108(c)(5) and (h)(1)(v).
(f)(2) Types of fire-extinguishing equipment required (manual and automatic)	1910.108(c)(5) and (g)(1) to (g)(5).
(f)(3) Requirements for fire-extinguishing covers	1910.108(g)(6).
(g) To what temperature may I heat a liquid in a dip tank?	
(g)(1) Below the liquid's boiling point	NFPA 34–1995.
(g)(2) At least 100° F (37.8° C) below the liquid's autoignition temperature	NFPA 34–1995.
1910.126 Additional requirements for special dipping and coating operations:	
(a) What additional requirements apply to hardening or tempering tanks?	
(a)(1) Location, flooring, and venting requirements	1910.108(h)(1)(i) and (h)(1)(ii).
(a)(2) Alarm requirements	1910.108(h)(1)(iv).
(a)(3) Limit switch to shut down the conveyor	1910.108(h)(1)(iv).
(a)(4) Circulating cooling system	1910.108(h)(1)(iii).
(a)(5) Bottom drains combined with oil-circulating system	1910.108(h)(1)(vii).
(a)(6) Prohibit use of pressurized air to fill or agitate	1910.108(h)(1)(vi).
(b) What additional requirements apply to flow coating?	
(b)(1) Use of direct low-pressure pumping systems or gravity tanks to supply paint.	1910.108(h)(2)(iii).
(b)(2) Piping requirements	1910.108(h)(2)(ii).
(c) What additional requirements apply to roll coating, roll spreading, or roll impregnating?	
(c)(1) Requirements for bonding and grounding metallic parts and installing static collectors.	1910.108(h)(4)(ii).
(c)(2) Requirement to maintain a conductive atmosphere	1910.108(h)(4)(ii).
(d) What additional requirements apply to vapor degreasing tanks?	
(d)(1) Maintain the vapor level below the top of the tank	1910.94(d)(12)(i).
(d)(2) Prevent solvent fumes from entering the air-fuel mixture	1910.94(d)(12)(ii).
(d)(3) Requirements for flues and draft diverters	1910.94(d)(12)(ii).
(d)(4) Temperature limit for the heating element	1910.94(d)(12)(iii).
(e) What additional requirements apply to cyanide tanks?	1910.94(d)(10).
(f) What additional requirements apply to spray cleaning tanks and degreasing tanks?	
(f)(1) Enclose spray operations	1910.94(d)(5).
(f)(2) Mechanical ventilation required	1910.94(d)(5).
(g) What additional requirements apply to electrostatic paint detearing?	
(g)(1) Approved electrostatic equipment including electrodes	1910.108(h)(3)(ii), (h)(3)(iv), and (h)(3)(xi).

TABLE III—Continued

Final sections 1910.123 through 1910.126 (final section 1910.122 contains a table of contents for final sections 1910.123 through 1910.126)	Former sections 1910.94(d) and 1910.108 (or applicable NFPA standards)
(g)(2) Use of conveyors to support goods being paint-deteared	1910.108(h)(3)(vii).
(g)(3) No manual handling of goods being paint-deteared	1910.108(h)(3)(viii).
(g)(4) Requirement to maintain the safe distance	1910.108(h)(3)(vi).
(g)(5) Automatic controls required	1910.108(h)(3)(ix).
(g)(6) Fences, rails, or guards required	1910.108(h)(3)(x).
(g)(7) Requirements for fire protection	1910.108(h)(3)(xiii).
(g)(8) Collecting paint deposits	1910.108(h)(3)(xiv).

IV. Legal Considerations

Because the final rule is only a plain language redrafting of two former Agency rules, it is not necessary to determine significant risk or the extent to which the final rule reduces that risk. In *Industrial Union Department, AFL–CIO* v. *American Petroleum Institute,* 448 U.S. 607 (1980), the Supreme Court ruled that, before OSHA can increase the protection afforded by a standard, the Agency must find that the hazard being regulated poses a significant risk to employees and that a new, more protective, standard is ''reasonably necessary and appropriate'' to reduce that risk. The final rule that replaces the Agency's former rules regulating dipping and coating operations does not directly increase or decrease the protection afforded to employees, nor does it increase employers' compliance burdens. Therefore, no finding of significant risk is necessary.

The Agency believes, however, that improved employee protection is likely to result from implementation of the final rule because employers and employees who clearly understand what a rule requires are more likely to comply with that rule. In addition, because the final rule is more performance-oriented than the former rules regulating dipping and coating operations, employers will find it easier to comply with the final rule.

V. Economic Analysis

The final rule is not a significant rule under Executive Order 12866 or a major rule under the Unfunded Mandates Reform Act or Section 801 of the Small Business Regulatory Enforcement Fairness Act (SBREFA) because it imposes no additional costs on any private or public sector entity and does not meet any of the other criteria for a significant or major rule specified by the Executive Order or the other statutes. Because the final rule does not impose any additional costs on employers whose operations involve dipping and coating, no economic or regulatory flexibility analysis of the final rule is required.

VI. Regulatory Flexibility Certification

In accordance with the Regulatory Flexibility Act, 5 U.S.C. 601 et seq (as amended), OSHA has examined the regulatory requirements of the final rule to determine if it will have a significant economic impact on a substantial number of small entities. As indicated in section V of this preamble, the final rule does not increase employers' compliance costs, and may even reduce the regulatory burden on all affected employers, both large and small. Accordingly, the Agency certifies that the final rule does not have a significant economic impact on a substantial number of small entities.

VII. Environmental Impact Assessment

OSHA has reviewed the final rule in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 3et seq.), the regulations of the Council on Environmental Quality (40 U.S.C. part 1500), and the Department of Labor's NEPA procedures (29 CFR part 11). As noted earlier in this preamble, the final rule imposes the same requirements on employers as the standards it replaces; consequently, the final rule has no additional impact on the environment, including no impact on the release of materials that contaminate natural resources or the environment, beyond the impact imposed by OSHA's former standards regulating dipping and coating operations.

VIII. Paperwork Reduction Act

This final rule contains a collection of information requirement. Under 1910.126(g)(4), employers are required to determine how far away employees should remain when electrostatic paint detearing equipment is being used. This distance is called the ''safe distance.'' The employer must conspicuously display this ''safe distance'' on a sign located near the equipment. OSHA does not believe that the provision imposes a burden on the employer to collect or display the information because OSHA believes the information has already been determined and displayed on the few, about 12, pieces of equipment in use today. Newer technology appears to have eliminated the need to manufacture or use electrostatic paint detearing equipment. OSHA solicited public comments on this information collection requirement. There were no comments submitted in response to the collection of information associated with this provision.

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520), OSHA requested OMB approval of the collection of information requirement described above. On June 1, 1998, the Office of Management and Budget (OMB) granted approval of the information requirement under OMB Control Number 1218–0237. The approval expires on June 30, 2001.

Under 5 CFR 1320.5(b), an Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection displays a valid control number.

IX. Unfunded Mandates

OSHA has reviewed the final rule in accordance with the Unfunded Mandates Reform Act of 1995, 2 U.S.C. 1501 *et seq.*, and Executive Order 12875. As discussed above in section IV of this preamble (''Legal Considerations''), OSHA has determined that the final rule imposes no new regulatory burdens on any employer, either public or private. The scope and content of the final rule remain the same as those of the former standards regulating dipping and coating operations and have not been expanded to include additional employers. Consequently, compliance with the final rule requires no additional expenditures by either public or private employers. In sum, the final rule does not mandate that State, local, and tribal governments adopt new, unfunded regulatory obligations.

X. Federalism

The final rule which revises the former standards regulating dipping and coating operations has been reviewed for Federalism issues, and the Agency

certifies that the final rule has been assessed in accordance with the principles, criteria, and requirements set forth in Sections 2 through 5 of Executive Order 12612.

Executive Order 12612 requires that Federal agencies, to the extent possible, refrain from limiting State policy options, consult with States before taking actions that restrict State policy options, and take such actions only when clear constitutional authority exists and the problem is of national scope. The Executive Order provides for preemption of State law only when Congress has expressed an intent that a Federal agency do so. Any such preemption must be limited to the extent possible.

With respect to States that do not have occupational safety and health plans approved by OSHA under Section 18 of the Occupational Safety and Health Act of 1970 (the ''Act'') (29 U.S.C. 667), OSHA finds that the final rule conforms to the preemption provisions of the Act. Under these provisions, OSHA is authorized to preempt State promulgation and enforcement of requirements dealing with occupational safety and health issues covered by OSHA standards unless the State has an OSHA-approved State occupational safety and health plan. (See *Gade* v. *National Solid Wastes Management Association,* 112 S.Ct. 2374 (1992).) States without such programs are, by 29 U.S.C. 667, prohibited from issuing citations for violations of requirements covered by OSHA standards. The final rule does not expand this limitation.

Regarding States that have OSHA-approved occupational safety and health plans (''State-plan states''), OSHA finds that the final rule complies with Executive Order 12612 because the final rule addresses a problem that is national in scope, and Section 18(c)(2) of the Act (29 U.S.C. 667(c)(2)) requires State-plan States to adopt OSHA's final rule, or develop an alternative rule that is at least as effective as OSHA's final rule. Having already adopted OSHA's former standards regulating dipping and coating operations (or having developed alternative standards acceptable to OSHA), State-plan States are not obligated to adopt the final rule; they may, however, choose to adopt the final rule, and OSHA encourages them to do so.

XI. State Plan States

OSHA encourages the 25 States and Territories with their own OSHA-approved occupational safety and health plans to revise their standards regulating dipping and coating operations according to the final rule that resulted from this rulemaking. These States are: Alaska, Arizona, California, Connecticut (State and local government employees only), Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Mexico, New York (State and local government employees only), North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, and Wyoming.

XII. List of Subjects in 29 CFR Part 1910

Coating; Combustible liquid; Dipping; Dip tanks; Fire protection; Flammable liquid; Incorporation by reference; Occupational safety and health; Ventilation.

XIII. Authority

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, DC 20210. The final rule is issued under the authority of 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 6–96 (62 FR 111); and 29 CFR part 1911.

Signed at Washington, D.C., this 15th day of March, 1999.

Charles N. Jeffress,

Assistant Secretary of Labor.

OSHA amends 29 CFR part 1910 as follows:

PART 1910—OCCUPATIONAL SAFETY AND HEALTH STANDARDS

Subpart A—General

1. The Authority citation for subpart A of part 1910 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 Nos. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), 1–90 (55 FR 9033), or 6–96 (62 FR 111), as applicable.

Sections 1910.6, 1910.7, and 1910.8 also issued under 29 CFR part 1911.

§ 1910.6 [Amended]

1. Paragraph (b)(1) of § 1910.6 is revised to read as follows:

§ 1910.6 Incorporation by reference.

* * * * *

(b) * * *

(1) ''Industrial Ventilation: A Manual of Recommended Practice'' (22nd ed., 1995), incorporation by reference (IBR) approved for § 1910.124(b)(4)(iii).

* * * * *

2. Paragraph (e)(50) of § 1910.6 is revised to read as follows:

* * * * *

(e) * * *

(50) ANSI Z9.1–71 Practices for Ventilation and Operation of Open-Surface Tanks, IBR approved for § 1910.124(b)(4)(iv).

* * * * *

3. Paragraphs (e)(51) through (e)(70) of § 1910.6 are redesignated as paragraphs (e)(53) through (e)(72), respectively, and new paragraphs (e)(51) and (e)(52) are added to read as follows:

* * * * *

(e) * * *

(51) ANSI Z9.2–60 Fundamentals Governing the Design and Operation of Local Exhaust Systems, IBR approved for §§ 1910.94(a)(4)(i) introductory text, (a)(6) introductory text, (b)(3)(ix), (b)(4)(i) and (ii), (c)(3)(i) introductory text, (c)(5)(iii)(b), and (c)(7)(iv)(a); 1910.261(a)(3)(xx), (g)(1)(i) and (iii), and (h)(2)(ii).

(52) ANSI Z9.2–79 Fundamentals Governing the Design and Operation of Local Exhaust Systems, IBR approved for § 1910.124(b)(4)(i).

* * * * *

4. Paragraph (q) introductory text of § 1910.6 is revised to read as follows:

* * * * *

(q) The following material is available for purchase from the National Fire Protection Association (NFPA), 11 Tracy Drive, Avon, MA 02322:

5. Paragraph (q)(4) of § 1910.6 is revised to read as follows:

* * * * *

(q) * * *

(4) NFPA 34–1966 Standard for Dip Tanks Containing Flammable or Combustible Liquids, IBR approved for § 1910.124(b)(4)(iv).

* * * * *

6. Paragraphs (q)(5) through (q)(32) of § 1910.6 are redesignated as paragraphs (q)(6) through (q)(33), respectively, and a new paragraph (q)(5) is added to read as follows:

* * * * *

(q) * * *

(5) NFPA 34–1995 Standard for Dip Tanks Containing Flammable or Combustible Liquids, IBR approved for § 1910.124(b)(4)(ii).

* * * * *

Subpart G—Occupational Health and Environmental Control

1. The Authority citation for subpart G of part 1910 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 Orders Nos. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), 1–90 (55 FR 9033), or 6–96 (62 FR 111), as applicable; and 29 CFR part 1911.

§ 1910.94 [Amended]

2. Paragraph (d) of § 1910.94 is removed.

Subpart H—Hazardous Materials

1. The Authority citation for subpart H of 29 CFR part 1910 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 Orders Nos. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), 1–90 (55 FR 9033), or 6–96 (62 FR 111), as applicable; and 29 CFR part 11.

Sections 1910.103, 1910.106 through 1910.111, and 1910.119, 1910.120, and 1910.122 through 1910.126 also issued under 29 CFR part 1911.

Section 1910.119 also issued under Section 304, Clean Air Act Amendments of 1990 (Pub.L. 101–549), reprinted at 29 U.S.C. 655 Note.

Section 1910.120 also issued under Section 126, Superfund Amendments and Reauthorization Act of 1986 as amended (29 U.S.C. 655 Note), and 5 U.S.C. 553.

§ 1910.108 [Reserved]

2. Section 1910.108 is removed and reserved.

§ 1910.121 [Reserved]

3. Section 1910.121 is added and reserved.

4. New §§ 1910.122 through 1910.126 are added to read as follows:

DIPPING AND COATING OPERATIONS

§ 1910.122 Table of contents.

This section lists the paragraph headings contained in §§ 1910.123 through 1910.126.

§ 1910.123 Dipping and coating operations: Coverage and definitions.

(a) Does this rule apply to me?
(b) What operations are covered?
(c) What operations are not covered?
(d) How are terms used in §§ 1910.123 through 1910.126 defined?

§ 1910.124 General requirements for dipping and coating operations.

(a) What construction requirements apply to dip tanks?
(b) What ventilation requirements apply to vapor areas?
(c) What requirements must I follow to recirculate exhaust air into the workplace?
(d) What must I do when I use an exhaust hood?
(e) What requirements must I follow when an employee enters a dip tank?
(f) What first-aid procedures must my employees know?
(g) What hygiene facilities must I provide?
(h) What treatment and first aid must I provide?
(i) What must I do before an employee cleans a dip tank?
(j) What must I do to inspect and maintain my dipping or coating operation?

§ 1910.125 Additional requirements for dipping and coating operations that use flammable or combustible liquids.

(a) What type of construction material must be used in making my dip tank?
(b) When must I provide overflow piping?
(c) When must I provide a bottom drain?
(d) When must my conveyer system shut down automatically?
(e) What ignition and fuel sources must be controlled?
(f) What fire protection must I provide?
(g) To what temperature may I heat a liquid in a dip tank?

§ 1910.126 Additional requirements for special dipping and coating applications.

(a) What additional requirements apply to hardening or tempering tanks?
(b) What additional requirements apply to flow coating?
(c) What additional requirements apply to roll coating, roll spreading, or roll impregnating?
(d) What additional requirements apply to vapor degreasing tanks?
(e) What additional requirements apply to cyanide tanks?
(f) What additional requirements apply to spray cleaning tanks and spray degreasing tanks?
(g) What additional requirements apply to electrostatic paint detearing?

§ 1910.123 Dipping and coating operations: Coverage and definitions.

(a) Does this rule apply to me? (1) This rule (§§ 1910.123 through 1910.126) applies when you use a dip tank containing a liquid other than water. It applies when you use the liquid in the tank or its vapor to:

(i) Clean an object;
(ii) Coat an object;
(iii) Alter the surface of an object; or
(iv) Change the character of an object.

(2) This rule also applies to the draining or drying of an object you have dipped or coated.

(b) What operations are covered? Examples of covered operations are paint dipping, electroplating, pickling, quenching, tanning, degreasing, stripping, cleaning, roll coating, flow coating, and curtain coating.

(c) What operations are not covered? You are not covered by this rule if your dip-tank operation only uses a molten material (a molten metal, alloy, or salt, for example).

(d) How are terms used in §§ 1910.123 through 1910.126 defined?

Adjacent area means any area within 20 feet (6.1 m) of a vapor area that is not separated from the vapor area by tight partitions.

Approved means that the equipment so designated is listed or approved by a nationally recognized testing laboratory, as defined by § 1910.7.

Autoignition temperature means the minimum temperature required to cause self-sustained combustion, independent of any other source of heat.

Combustible liquid means a liquid having a flash point of 100° F (37.8° C) or above.

Dip tank means a container holding a liquid other than water and that is used for dipping or coating. An object may be immersed (or partially immersed) in a dip tank or it may be suspended in a vapor coming from the tank.

Flammable liquid means a liquid having a flashpoint below 100° F (37.8° C).

Flashpoint means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite if tested in accordance with the definition of ''flashpoint'' in § 1910.1200(c).

Lower flammable limit (LFL) means the lowest concentration of a material that will propagate a flame. The LFL is usually expressed as a percent by volume of the material in air (or other oxidant).

Vapor area means any space containing a dip tank, including its drain boards, associated drying or conveying equipment, and any surrounding area where the vapor concentration exceeds 25% of the LFL of the liquid in the tank.

You means the employer, as defined by the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 *et seq.*).

§ 1910.124 General requirements for dipping and coating operations.

(a) What construction requirements apply to dip tanks? Any container that you use as a dip tank must be strong enough to withstand any expected load.

(b) What ventilation requirements apply to vapor areas? (1) The ventilation that you provide to a vapor area must keep the airborne concentration of any substance below 25% of its LFL.

(2) When a liquid in a dip tank creates an exposure hazard covered by a standard listed in subpart Z of this part, you must control worker exposure as required by that standard.

(3) You may use a tank cover or material that floats on the surface of the liquid in a dip tank to replace or supplement ventilation. The method or combination of methods you choose must maintain the airborne

concentration of the hazardous material and the worker's exposure within the limits specified in paragraphs (b)(1) and (b)(2) of this section.

(4) When you use mechanical ventilation, it must conform to the following standards that are incorporated by reference as specified in § 1910.6:

(i) ANSI Z9.2–1979, Fundamentals Governing the Design and Operation of Local Exhaust Systems;

(ii) NFPA 34–1995, Standard for Dip Tanks Containing Flammable or Combustible Liquids;

(iii) ACGIH's ''Industrial Ventilation: A Manual of Recommended Practice'' (22nd ed., 1995); or

(iv) ANSI Z9.1–1971, Practices for Ventilation and Operation of Open-Surface Tanks, and NFPA 34–1966, Standard for Dip Tanks Containing Flammable or Combustible Liquids.

(5) When you use mechanical ventilation, it must draw the flow of air into a hood or exhaust duct.

(6) When you use mechanical ventilation, each dip tank must have an independent exhaust system unless the combination of substances being removed will not cause a:

(i) Fire;

(ii) Explosion; or

(iii) Chemical reaction.

(c) What requirements must I follow to recirculate exhaust air into the workplace? (1) You may not recirculate exhaust air when any substance in that air poses a health hazard to employees or exceeds 25% of its LFL.

(2) You must ensure that any exhaust air recirculated from a dipping or coating operation using flammable or combustible liquids is:

(i) Free of any solid particulate that poses a health or safety hazard for employees; and

(ii) Monitored by approved equipment.

(3) You must have a system that sounds an alarm and automatically shuts down the operation when the vapor concentration for any substance in the exhaust airstream exceeds 25% of its LFL.

(d) What must I do when I use an exhaust hood? You must:

(1) Provide each room having exhaust hoods with a volume of outside air that is at least 90 percent of the volume of the exhaust air; and

(2) Ensure that the outside air supply does not damage exhaust hoods.

(e) What requirements must I follow when an employee enters a dip tank? When an employee enters a dip tank, you must meet the entry requirements of § 1910.146, OSHA's standard for Permit-Required Confined Spaces, as applicable.

(f) What first-aid procedures must my employees know? Your employees must know the first-aid procedures that are appropriate to the dipping or coating hazards to which they are exposed.

(g) What hygiene facilities must I provide? When your employees work with liquids that may burn, irritate, or otherwise harm their skin, you must provide:

(1) Locker space or other storage space to prevent contamination of the employee's street clothes;

(2) An emergency shower and eye-wash station close to the dipping or coating operation. In place of this equipment, you may use a water hose that is at least 4 feet (1.22 m) long and at least ¾ of an inch (18 mm) thick with a quick-opening valve and carrying a pressure of 25 pounds per square inch (1.62 k/cm^2) or less; and

(3) At least one basin with a hot-water faucet for every 10 employees who work with such liquids. (See paragraph (d) of § 1910.141.)

(h) What treatment and first aid must I provide? When your employees work with liquids that may burn, irritate, or otherwise harm their skin, you must provide:

(1) A physician's approval before an employee with a sore, burn, or other skin lesion that requires medical treatment works in a vapor area;

(2) Treatment by a properly designated person of any small skin abrasion, cut, rash, or open sore;

(3) Appropriate first-aid supplies that are located near the dipping or coating operation; and

(4) For employees who work with chromic acid, periodic examinations of their exposed body parts, especially their nostrils.

(i) What must I do before an employee cleans a dip tank? Before permitting an employee to clean the interior of a dip tank, you must:

(1) Drain the contents of the tank and open the cleanout doors; and

(2) Ventilate and clear any pockets where hazardous vapors may have accumulated.

(j) What must I do to inspect and maintain my dipping or coating operation? You must:

(1) Inspect the hoods and ductwork of the ventilation system for corrosion or damage:

(i) At least quarterly during operation; and

(ii) Prior to operation after a prolonged shutdown.

(2) Ensure that the airflow is adequate:

(i) At least quarterly during operation; and (

ii) Prior to operation after a prolonged shutdown.

(3) Periodically inspect all dipping and coating equipment, including covers, drains, overflow piping, and electrical and fire-extinguishing systems, and promptly correct any deficiencies;

(4) Provide mechanical ventilation or respirators (selected and used as specified in § 1910.134, OSHA's Respiratory Protection standard) to protect employees in the vapor area from exposure to toxic substances released during welding, burning, or open-flame work; and

(5) Have dip tanks thoroughly cleaned of solvents and vapors before permitting welding, burning, or open-flame work on them.

§ 1910.125 Additional requirements for dipping and coating operations that use flammable or combustible liquids.

If you use flammable or combustible liquids, you must comply with the requirements of this section as well as the requirements of sections 1910.123, 1910.124, and 1910.126, as applicable.

You must comply with this section if:	And:
• The flashpoint of the flammable or combustible liquid is 200° F (93.3° C) or above ...	• The liquid is heated as part of the operation; or • A heated object is placed in the liquid.

(a) What type of construction material must be used in making my dip tank? Your dip tank must be made of noncombustible material.

(b) When must I provide overflow piping? (1) You must provide properly trapped overflow piping that discharges to a safe location for any dip tank having:

(i) A capacity greater than 150 gallons (568 L); or

(ii) A liquid surface area greater than 10 feet^2 (0.95 m^2).

(2) You must also ensure that:

(i) Any overflow piping is at least 3 inches (7.6 cm) in diameter and has sufficient capacity to prevent the dip tank from overflowing;

(ii) Piping connections on drains and overflow pipes allow ready access to the interior of the pipe for inspection and cleaning; and

(iii) The bottom of the overflow connection is at least 6 inches (15.2 cm) below the top of the dip tank.

(c) When must I provide a bottom drain? (1) You must provide a bottom drain for dip tanks that contain more than 500 gallons (1893 L) of liquid, unless:

(i) The dip tank is equipped with an automatic closing cover meeting the requirements of paragraph (f)(3) of this section; or

(ii) The viscosity of the liquid at normal atmospheric temperature does not allow the liquid to flow or be pumped easily.

(2) You must ensure that the bottom drain required by this section:

(i) Will empty the dip tank during a fire;

(ii) Is properly trapped;

(iii) Has pipes that permit the dip tank's contents to be removed within five minutes after a fire begins; and

(iv) Discharges to a safe location.

(3) Any bottom drain you provide must be capable of manual and automatic operation, and manual operation must be from a safe and accessible location.

(4) You must ensure that automatic pumps are used when gravity flow from the bottom drain is impractical.

(d) When must my conveyor system shut down automatically? If your conveyor system is used with a dip tank, the system must shut down automatically:

(1) If there is a fire; or

(2) If the ventilation rate drops below what is required by paragraph (b) of § 1910.124.

(e) What ignition and fuel sources must be controlled? (1) In each vapor area and any adjacent area, you must ensure that:

(i) All electrical wiring and equipment conform to the applicable hazardous (classified)-area requirements of subpart S of this part (except as specifically permitted in paragraph (g) of § 1910.126); and

(ii) There are no flames, spark-producing devices, or other surfaces that are hot enough to ignite vapors.

(2) You must ensure that any portable container used to add liquid to the tank is electrically bonded to the dip tank and positively grounded to prevent static electrical sparks or arcs.

(3) You must ensure that a heating system that is used in a drying operation and could cause ignition:

(i) Is installed in accordance with NFPA 86A–1969, Standard for Ovens and Furnaces (which is incorporated by reference in § 1910.6 of this part);

(ii) Has adequate mechanical ventilation that operates before and during the drying operation; and

(iii) Shuts down automatically if any ventilating fan fails to maintain adequate ventilation.

(4) You also must ensure that:

(i) All vapor areas are free of combustible debris and as free as practicable of combustible stock;

(ii) Rags and other material contaminated with liquids from dipping or coating operations are placed in approved waste cans immediately after use; and

(iii) Waste can contents are properly disposed of at the end of each shift.

(5) You must prohibit smoking in a vapor area and must post a readily visible ''No Smoking'' sign near each dip tank.

(f) What fire protection must I provide? (1) You must provide the fire protection required by this paragraph (f) for:

(i) Any dip tank having a capacity of at least 150 gallons (568 L) or a liquid surface area of at least 4 feet^2 (0.38 m^1); and

(ii) Any hardening or tempering tank having a capacity of at least 500 gallons (1893 L) or a liquid surface area of at least 25 feet^2 (2.37 m^2).

(2) For every vapor area, you must provide:

(i) Manual fire extinguishers that are suitable for flammable and combustible liquid fires and that conform to the requirements of § 1910.157; and

(ii) An automatic fire-extinguishing system that conforms to the requirements of subpart L of this part.

(3) You may substitute a cover that is closed by an approved automatic device for the automatic fire-extinguishing system if the cover:

(i) Can also be activated manually;

(ii) Is noncombustible or tin-clad, with the enclosing metal applied with locked joints; and

(iii) Is kept closed when the dip tank is not in use.

(g) To what temperature may I heat a liquid in a dip tank? You must maintain the temperature of the liquid in a dip tank:

(1) Below the liquid's boiling point; and

(2) At least 100° F (37.8° C) below the liquid's autoignition temperature.

§ 1910.126 Additional requirements for special dipping and coating operations.

In addition to the requirements in §§ 1910.123 through 1910.125, you must comply with any requirement in this section that applies to your operation.

(a) What additional requirements apply to hardening or tempering tanks?

(1) You must ensure that hardening or tempering tanks:

(i) Are located as far as practicable from furnaces;

(ii) Are on noncombustible flooring; and

(iii) Have noncombustible hoods and vents (or equivalent devices) for venting to the outside. For this purpose, vent ducts must be treated as flues and kept away from combustible materials, particularly roofs.

(2) You must equip each tank with an alarm that will sound if the temperature of the liquid comes within 50° F (10° C) of its flashpoint (the alarm set point).

(3) When practicable, you must also provide each tank with a limit switch to shut down the conveyor supplying work to the tank.

(4) If the temperature of the liquid can exceed the alarm set point, you must equip the tank with a circulating cooling system.

(5) If the tank has a bottom drain, the bottom drain may be combined with the oil-circulating system.

(6) You must not use air under pressure when you fill the dip tank or agitate the liquid in the dip tank.

(b) What additional requirements apply to flow coating? (1) You must use a direct low-pressure pumping system or a 10-gallon (38 L) or smaller gravity tank to supply the paint for flow coating. In case of fire, an approved heat-actuated device must shut down the pumping system.

(2) You must ensure that the piping is substantial and rigidly supported.

(c) What additional requirements apply to roll coating, roll spreading, or roll impregnating?

When these operations use a flammable or combustible liquid that has a flashpoint below 140° F (60° C), you must prevent sparking of static electricity by:

(1) Bonding and grounding all metallic parts (including rotating parts) and installing static collectors; or

(2) Maintaining a conductive atmosphere (for example, one with a high relative humidity) in the vapor area.

(d) What additional requirements apply to vapor degreasing tanks? (1) You must ensure that the condenser or vapor-level thermostat keeps the vapor level at least 36 inches (91 cm) or one-half the tank width, whichever is less,

below the top of the vapor degreasing tank.

(2) When you use gas as a fuel to heat the tank liquid, you must prevent solvent vapors from entering the air-fuel mixture. To do this, you must make the combustion chamber airtight (except for the flue opening).

(3) The flue must be made of corrosion-resistant material, and it must extend to the outside. You must install a draft diverter if mechanical exhaust is used on the flue.

(4) You must not allow the temperature of the heating element to cause a solvent or mixture to decompose or to generate an excessive amount of vapor.

(e) What additional requirements apply to cyanide tanks? You must ensure that cyanide tanks have a dike or other safeguard to prevent cyanide from mixing with an acid if a dip tank fails.

(f) What additional requirements apply to spray cleaning tanks and spray degreasing tanks? If you spray a liquid in the air over an open-surface cleaning or degreasing tank, you must control the spraying to the extent feasible by:

(1) Enclosing the spraying operation; and

(2) Using mechanical ventilation to provide enough inward air velocity to prevent the spray from leaving the vapor area.

(g) What additional requirements apply to electrostatic paint detearing? (1) You must use only approved electrostatic equipment in paint-detearing operations. Electrodes in such equipment must be substantial, rigidly supported, permanently located, and effectively insulated from ground by nonporous, noncombustible, clean, dry insulators.

(2) You must use conveyors to support any goods being paint deteared.

(3) You must ensure that goods being electrostatically deteared are not manually handled.

(4) Between goods being electrostatically deteared and the electrodes or conductors of the electrostatic equipment, you must maintain a minimum distance of twice the sparking distance. This minimum distance must be displayed conspicuously on a sign located near the equipment.

(5) You must ensure that the electrostatic equipment has automatic controls that immediately disconnect the power supply to the high-voltage transformer and signal the operator if:

(i) Ventilation or the conveyors fail to operate;

(ii) A ground (or imminent ground) occurs anywhere in the high-voltage system; or

(iii) Goods being electrostatically deteared come within twice the sparking distance of the electrodes or conductors of the equipment.

(6) You must use fences, rails, or guards, made of conducting material and adequately grounded, to separate paint-detearing operations from storage areas and from personnel.

(7) To protect paint-detearing operations from fire, you must have in place:

(i) Automatic sprinklers; or

(ii) An automatic fire-extinguishing system conforming to the requirements of subpart L of this part.

(8) To collect paint deposits, you must:

(i) Provide drip plates and screens; and

(ii) Clean these plates and screens in a safe location.

[FR Doc. 99–6824 Filed 3–22–99; 8:45 am]

BILLING CODE 4510–26–P

DEPARTMENT OF DEFENSE

Office of the Secretary

32 CFR Part 199

RIN 0720–AA48

Civilian Health and Medical Program of the Uniformed Services (CHAMPUS); TRICARE Prime Enrollment Procedures

AGENCY: Office of the Secretary, DoD.

ACTION: Final rule.

SUMMARY: This final rule modifies the TRICARE Prime enrollment procedures for active duty families by specifying that enrollment will be automatically renewed upon the expiration of the annual enrollment period, unless the renewal is declined. It also allows for monthly installment payments of enrollment fees via allotment or electronic funds transfer for those beneficiaries required to pay an annual TRICARE Prime enrollment fee.

EFFECTIVE DATE: April 22, 1999.

ADDRESSES: TRICARE Management Activity, Program Development Branch, Aurora, CO 80045–6900.

FOR FURTHER INFORMATION CONTACT: Kathleen Larkin, Office of the Assistant Secretary of Defense (Health Affairs)/ TRICARE Management Activity, telephone (703) 681–1745.

SUPPLEMENTARY INFORMATION:

Introduction and Background

A. Congressional Action

This final rule implements section 712 of the FY 1999 National Defense Authorization Act, which modified 10 U.S.C. 1097a to provide for automatic renewal of TRICARE Prime enrollments and additional payment options for retirees.

B. Public Comments

The proposed rule was published in the **Federal Register** on July 7, 1998 (63 FR 36651). We received no public comments.

II. Provisions of the Rule

1. TRICARE Prime Enrollment Renewals (revision to section 199.17(o)(2))

Provisions of the Proposed Rule

This paragraph explained that we proposed a change to the TRICARE Prime enrollment period from a 12-month enrollment period to continuous enrollment until such time as the enrollee opted to disenroll from TRICARE Prime. TRICARE Prime was originally designed so that enrollees would be required to take positive action to continue their enrollment in TRICARE Prime at or before their 12-month anniversary date. Positive action to reenroll was required because TRICARE implementation was not available in all regions of the country and overseas locations. Subsequent to our notice of proposed rulemaking, section 712 of the FY 1999 National Defense Authorization Act modified 10 U.S.C. 1097a to require annual enrollment periods but required that TRICARE Prime enrollment be automatically renewed upon the expiration of the enrollment unless the renewal is declined. The Act also requires that the enrollee, or the sponsor in the case of an enrolled family member, be notified in writing no later than 15 days before the enrollment expiration date and afforded the opportunity to decline enrollment.

Provisions of the Final Rule

The final rule has been modified to implement the statutory direction given in the FY 1999 National Defense Authorization Act.

2. Changes to Installment Payments of Enrollment Fees (revision to section 199.17(o)(3))

Provisions of the Proposed Rule

When we first instituted the requirement for annual TRICARE Prime enrollment fees for certain beneficiary categories, we allowed for quarterly installment payments of the enrollment fees. In keeping with the nature of a more continuous enrollment process, we proposed that retirees, their families, and other beneficiaries required to pay an annual enrollment fee would be