

Medical Screening and Surveillance Requirements in OSHA Standards: A Guide

OSHA 3162-01R 2014



Occupational Safety and Health Act of 1970

"To assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, education, and training in the field of occupational safety and health."

This publication provides a general overview of a particular standards-related topic. This publication does not alter or determine compliance responsibilities which are set forth in OSHA standards and the *Occupational Safety and Health Act*. Moreover, because interpretations and enforcement policy may change over time, for additional guidance on OSHA compliance requirements the reader should consult current administrative interpretations and decisions by the Occupational Safety and Health Review Commission and the courts.

Material contained in this publication is in the public domain and may be reproduced, fully or partially, without permission. Source credit is requested but not required.

This information will be made available to sensory-impaired individuals upon request. Voice phone: (202) 693-1999; teletypewriter (TTY) number: 1-877-889-5627.

Medical Screening and Surveillance Requirements in OSHA Standards: A Guide



U.S. Department of Labor

Occupational Safety and Health Administration

OSHA 3162-01R
2014

The Occupational Safety and Health Act requires that employers comply with safety and health standards promulgated by OSHA or by a state with an OSHA-approved state plan. This guide is a quick reference to help you locate and implement the screening and surveillance requirements of the Federal OSHA standards published in *Title 29 of the Code of Federal Regulations (29 CFR)*. This guide provides a general overview of OSHA requirements. It is not a standard or regulation, and it creates no new legal obligations. For full details of specific compliance requirements, please consult the appropriate OSHA standard in the *CFR*. You can access the medical surveillance provisions of the OSHA standards on the Internet at www.osha.gov. Additional assistance is available by telephone at 1-800-321-OSHA (6742).

Content

Glossary . . .	4
Acrylonitrile . . .	5
Arsenic (Inorganic) . . .	6
Asbestos (General Industry) . . .	7
Asbestos (Construction and Shipyards) . . .	8
Benzene . . .	9
Bloodborne Pathogens . . .	10
1,3-Butadiene . . .	11
Cadmium . . .	12
Carcinogens (Suspect) . . .	13
Chromium(VI), Hexavalent Chromium . . .	14
Coke Oven Emissions . . .	15
Compressed Air Environments . . .	16
Cotton Dust . . .	17
1,2-dibromo-3-chloropropane . . .	18
Ethylene Oxide . . .	19
Formaldehyde . . .	20
HAZWOPER . . .	21
Hazardous Chemicals in Laboratories . . .	22
Lead . . .	23
Methylene Chloride . . .	25
Methylenedianiline . . .	26
Noise . . .	27
Respiratory Protection . . .	28
Vinyl Chloride . . .	29
Footnotes . . .	30
Workers' Rights . . .	31
OSHA Assistance, Services and Programs . . .	31
NIOSH Health Hazard Evaluation Program . . .	34
OSHA Regional Offices . . .	35

Glossary

BP	blood pressure
BUN	blood urea nitrogen
CBC	complete blood count
FEF	forced expiratory flow
FEV₁	forced expiratory volume one second
FSH	follicle stimulating hormone
FVC	forced vital capacity
HAZWOPER	Hazardous Waste Operations and Emergency Response
HBV	hepatitis B virus
LH	luteinizing hormone
MDA	methylenedianiline
PFT	pulmonary function test
PHS or USPHS	United States Public Health Service
PLHCP	physician or other licensed healthcare professional
PPE	personal protective equipment
SGOT	serum glutamic oxalacetic transaminase
SGPT	serum glutamic pyruvic transaminase
ZPP	zinc protoporphyrin

Acrylonitrile 1910.1045(n); 1926.1145; 1915.1045*

Standard Requirements

Pre-placement exam	Yes ¹
Periodic exam	Yes – annual ¹
Emergency/exposure examination and tests	Yes
Termination exam	Yes – if no exam within 6 months of termination
Examination includes special emphasis on these body systems	Respiratory, gastrointestinal ¹ , thyroid, skin, neurological (peripheral and central)
Work and medical history	Required for all exams ²
Chest x-ray	Yes
Pulmonary function test (PFT)	No
Other required tests	Fecal occult blood ¹
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician
Medical removal plan	No

Arsenic (Inorganic) 1910.1018(n); 1926.1118; 1915.1018*

Standard Requirements

Pre-placement exam	Yes ¹
Periodic exam	Yes – annual ¹
Emergency/exposure examination and tests	Yes
Termination exam	Yes – if no exam within 6 months of termination
Examination includes special emphasis on these body systems	Skin, nasal
Work and medical history	Required for all exams ² with focus on respiratory symptoms; includes smoking history
Chest x-ray	Yes
Pulmonary function test (PFT)	No
Other required tests	No
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician
Medical removal plan	No

Asbestos (General Industry)

1910.1001(l)

Standard Requirements

Pre-placement exam	Yes ^{1, 3}
Periodic exam	Yes – annual ¹
Emergency/exposure examination and tests	No
Termination exam	Yes – within ± 30 days of termination
Examination includes special emphasis on these body systems	Respiratory, cardiovascular, gastrointestinal
Work and medical history	Required for all exams ² standardized form required; see standard, Appendix D parts 1 and 2
Chest x-ray	Yes ¹ – see standard Table 1 for frequency; B reader, board eligible/certified radiologist or physician with expertise in pneumoconioses required; see standard, Appendix E for x-ray interpretation and classification requirements
Pulmonary function test (PFT)	FVC, FEV ₁
Other required tests	No
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician; includes informing employee of increased risk of lung cancer from combined effects of smoking and asbestos exposure
Medical removal plan	No

Asbestos (Construction and Shipyards)

1926.1101(m); 1915.1001

Standard Requirements

Pre-placement exam	Yes ^{1, 3}
Periodic exam	Yes – annual ¹ or more frequently if determined by physician
Emergency/exposure examination and tests	No
Termination exam	No
Examination includes special emphasis on these body systems	Pulmonary and gastrointestinal
Work and medical history	Required for all exams ² ; special emphasis on pulmonary, cardiovascular, gastrointestinal; standardized form required; see standard, Appendix D parts 1 and 2
Chest x-ray	Yes ¹ – B reader, board eligible/certified radiologist or physician with expertise in pneumoconioses required; see standard, Appendix E for x-ray interpretation and classification requirements
Pulmonary function test (PFT)	FVC, FEV ₁
Other required tests	No
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician; includes informing employee of increased risk of lung cancer from combined effects of smoking and asbestos exposure
Medical removal plan	No

Benzene

1910.1028(i); 1926.1128; 1915.1028*

Standard Requirements

Pre-placement exam	Yes ^{1, 3, 4}
Periodic exam	Yes – annual ^{1, 4}
Emergency/exposure examination and tests	Yes ^{1, 4} – includes urinary phenol test
Termination exam	No
Examination includes special emphasis on these body systems	Hemopoietic; add cardiopulmonary if respiratory protection used at least 30 days/year, (initially, then every 3 years)
Work and medical history	Required for initial and periodic exams (pre-placement exam requires special history) ²
Chest x-ray	No
Pulmonary function test (PFT)	Initially and every 3 years if respiratory protection used 30 days/year; specific tester requirements
Other required tests	CBC, differential, other specific blood tests; repeated as required; see standard
Evaluation of ability to wear a respirator	Yes – if respirators are used
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician
Medical removal plan	Yes ⁵

Bloodborne Pathogens

1910.1030(f)

Standard Requirements

Pre-placement exam	No – must offer Hepatitis B (HBV) vaccine unless already immune or vaccine contraindicated
Periodic exam	No
Emergency/exposure examination and tests	Specific post-exposure monitoring for employee and source; HBV vaccine; see standard
Termination exam	No
Examination includes special emphasis on these body systems	No
Work and medical history	No
Chest x-ray	No
Pulmonary function test (PFT)	No
Other required tests	Yes – post-exposure incident; follow U.S. Public Health Service (USPHS) post-exposure protocols
Evaluation of ability to wear a respirator	No
Additional tests if deemed necessary	Yes – for post-exposure incident; follow USPHS post-exposure protocols
Written medical opinion	Yes – licensed healthcare professional to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by licensed healthcare professional; counseling re: HBV vaccine and post-exposure follow-up; see standard
Medical removal plan	No

1,3-Butadiene

1910.1051(k); 1926.1151*

Standard Requirements

Pre-placement exam	Yes ^{1, 3, 4}
Periodic exam	Yes ^{1, 4}
Emergency/exposure examination and tests	Yes ^{1, 4} – within 48 hours of exposure
Termination exam	Yes ⁴ – if 12 months have elapsed since last exam
Examination includes special emphasis on these body systems	Liver, spleen, lymph nodes, and skin
Work and medical history	Required annually and for all examinations ² ; standardized form or equivalent; includes comprehensive occupational and health history; see standard, Appendices F and C
Chest x-ray	No
Pulmonary function test (PFT)	No
Other required tests	Annually, CBC with differential and platelet count; also within 48 hrs. after exposure in an emergency situation and repeated monthly for 3 more months
Evaluation of ability to wear a respirator	Yes – if respirators are used
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician or other licensed healthcare professional to employer and employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician or other licensed healthcare professional
Medical removal plan	No

Cadmium

1910.1027(l); 1926.1127; 1915.1027; 1928.1027*

Standard Requirements

Pre-placement exam	Yes ^{1, 3, 4}
Periodic exam	Yes ^{1, 4}
Emergency/exposure examination and tests	Yes ^{1, 4}
Termination exam	Yes ³ – see standard for time frame and other specifics
Examination includes special emphasis on these body systems	Respiratory, cardiovascular (BP), urinary, and for males over 40 – prostate palpation ¹
Work and medical history	Required for preplacement and periodic exams ² ; standardized form required; see Appendix D
Chest x-ray	Yes
Pulmonary function test (PFT)	FVC, FEV ₁
Other required tests	Cadmium in urine, beta-2 microglobulin in urine, cadmium in blood, CBC, BUN, serum creatinine, urinalysis; see standard
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician; includes explanation of results, treatment, and diet, and discussion of decisions re: medical removal; see standard for details
Medical removal plan	Yes ⁵

Carcinogens (Suspect)

1910.1003-1016(g); 1926.1103; 1915.1003-1016*

Standard Requirements

Pre-placement exam	Yes
Periodic exam	Yes – annual
Emergency/exposure examination and tests	Yes ¹ – special medical surveillance begins within 24 hours
Termination exam	No
Examination includes special emphasis on these body systems	Exam includes determination for increased risk (e.g., treatment with steroids or cytotoxic agents, reduced immunological competence, pregnancy or cigarette smoking)
Work and medical history	Required for all examinations; includes family and occupational history, genetic and environmental factors
Chest x-ray	No
Pulmonary function test (PFT)	No
Other required tests	No
Evaluation of ability to wear a respirator	Yes – as specified in the Respiratory Protection standard, 1910.134(e), if respirators are used
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer
Employee counseling re: exam results, conditions of increased risk	No
Medical removal plan	No

Chromium(VI), Hexavalent

1910.1026(k); 1926.1126(i); 1915.1026(i)

Standard Requirements

Pre-placement exam	Yes ¹
Periodic exam	Yes ¹
Emergency/exposure examination and tests	Yes ¹
Termination exam	Yes ³ – unless last exam was less than 6 months prior to date of termination
Examination includes special emphasis on these body systems	Skin and respiratory tract
Work and medical history	Required for all exams ² ; includes past, present and anticipated future exposure; any history of respiratory system dysfunction, asthma, dermatitis, skin ulceration or nasal septum perforation; smoking status and history
Chest x-ray	No
Pulmonary function test (PFT)	No
Other required tests	No
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician or other licensed healthcare professional (PLHCP) to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by PLHCP
Medical removal plan	No

Coke Oven Emissions

1910.1029(j)

Standard Requirements

Pre-placement exam	Yes ¹
Periodic exam	Yes ¹
Emergency/exposure examination and tests	No
Termination exam	Yes – if no exam within 6 months of termination
Examination includes special emphasis on these body systems	Skin
Work and medical history	Required for all exams ² ; includes smoking history and presence and degree of respiratory symptoms
Chest x-ray	Yes
Pulmonary function test (PFT)	FVC, FEV ₁
Other required tests	Weight, urine cytology, urinalysis for sugar, albumin, hematuria
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes – see standard, Appendix B
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician; also, employer must inform employee of possible health consequences if employee refuses any required medical exam
Medical removal plan	No

Compressed Air Environments

1926.803(b)

Standard Requirements

Pre-placement exam	Yes
Periodic exam	Yes ¹
Emergency/exposure examination and tests	No
Termination exam	No
Examination includes special emphasis on these body systems	Not specified
Work and medical history	No
Chest x-ray	No
Pulmonary function test (PFT)	No
Other required tests	No
Evaluation of ability to wear a respirator	No
Additional tests if deemed necessary	No
Written medical opinion	No
Employee counseling re: exam results, conditions of increased risk	No
Medical removal plan	No

Cotton Dust

1910.1043(h)

Standard Requirements

Pre-placement exam	Physical exam not specified; other tests required
Periodic exam	Physical exam not specified; other tests required ^{1, 4}
Emergency/exposure examination and tests	No
Termination exam	No
Examination includes special emphasis on these body systems	Not specified
Work and medical history	Medical history; standardized questionnaire required; see standard, Appendix B-1 ^{1, 2, 4}
Chest x-ray	No
Pulmonary function test (PFT)	FVC, FEV ₁ , FEV ₁ /FVC Employees with specific abnormalities are referred to specialists ^{1, 4, 5}
Other required tests	No
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	No
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician re: results of exam and any medical conditions requiring further examination or treatment
Medical removal plan	Yes – for inability to wear a respirator

1,2-dibromo-3-chloropropane

1910.1044(m); 1926.1144; 1915.1044*

Standard Requirements

Pre-placement exam	Yes
Periodic exam	Yes ¹
Emergency/exposure examination and tests	Yes – male reproductive; repeat in 3 months
Termination exam	No
Examination includes special emphasis on these body systems	Reproductive, genitourinary; see standard for details
Work and medical history	Required for all exams ² ; includes reproductive history; see standard, Appendix C
Chest x-ray	No
Pulmonary function test (PFT)	No
Other required tests	Sperm count, FSH, LH, Total estrogen (females); see standard, Appendix C for guidelines
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician
Medical removal plan	No

Ethylene Oxide

1910.1047(i); 1926.1147*

Standard Requirements

Pre-placement exam	Yes ¹
Periodic exam	Yes – annual ¹
Emergency/exposure examination and tests	Yes ¹
Termination exam	Yes ¹
Examination includes special emphasis on these body systems	Pulmonary, skin, neurologic, hematologic, reproductive, eyes
Work and medical history	Required for all exams; includes reproductive history and special emphasis on some body systems; see standard
Chest x-ray	No
Pulmonary function test (PFT)	No
Other required tests	CBC, white cell count with differential, hematocrit, hemoglobin, red cell count; if requested by employee, pregnancy testing and fertility testing (female/male) will be added to the exam as deemed appropriate by physician
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician
Medical removal plan	No

Formaldehyde

1910.1048(l); 1926.1148; 1915.1048*

Standard Requirements

Pre-placement exam	Yes ^{1, 4}
Periodic exam	Yes ^{1, 4}
Emergency/exposure examination and tests	Yes ⁴
Termination exam	No
Examination includes special emphasis on these body systems	Evidence of irritation or sensitization of skin, respiratory system, eyes; shortness of breath
Work and medical history	Required for all exams ² ; questionnaire required; see standard, Appendix D
Chest x-ray	No
Pulmonary function test (PFT)	FVC, FEV ₁ , FEF should be evaluated if respiratory protection is used
Other required tests	No
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician; includes information on whether medical conditions were caused by past exposures or emergency exposures
Medical removal plan	Yes ⁵

HAZWOPER

1910.120(f); 1926.65*

Standard Requirements

Pre-placement exam	Yes ¹
Periodic exam	Yes – annually or at physician's discretion ¹
Emergency/exposure examination and tests	Yes ¹
Termination exam	Yes – if no exam within 6 months of termination/reassignment
Examination includes special emphasis on these body systems	Determined by physician; see standard, Appendix D, reference 10 for guidelines
Work and medical history	Yes – with emphasis on symptoms related to handling hazardous substances and health hazards, fitness for duty and ability to wear PPE ²
Chest x-ray	No – unless determined by physician
Pulmonary function test (PFT)	No – unless determined by physician
Other required tests	No – unless determined by physician
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician
Medical removal plan	No

Hazardous Chemicals in Laboratories

1910.1450(g)

<i>Standard Requirements</i>	
Pre-placement exam	When required by other standards
Periodic exam	When required by other standards
Emergency/exposure examination and tests	Yes ¹
Termination exam	No
Examination includes special emphasis on these body systems	Not specified
Work and medical history	When required by other standards
Chest x-ray	When required by other standards
Pulmonary function test (PFT)	When required by other standards
Other required tests	When required by other standards
Evaluation of ability to wear a respirator	Yes – when required by other standards
Additional tests if deemed necessary	When required by other standards
Written medical opinion	Yes – physician to employer
Employee counseling re: exam results, conditions of increased risk	Yes – by physician
Medical removal plan	No

Lead

1910.1025(j); 1926.62*

Standard Requirements

Pre-placement exam	Yes ^{1, 4} except in construction industries; construction requires initial blood tests only
Periodic exam	Yes ^{1, 4}
Emergency/exposure examination and tests	Yes ^{1, 4}
Termination exam	No
Examination includes special emphasis on these body systems	Teeth, gums, hematologic, gastrointestinal, renal, cardiovascular (BP), neurological; pulmonary status if respiratory protection used
Work and medical history	Required for all exams ² ; includes reproductive history, past lead exposure, both work/non-work, and history of specific body systems; see standard
Chest x-ray	No
Pulmonary function test (PFT)	No – unless deemed necessary by physician
Other required tests	Hemoglobin, hematocrit, ZPP, BUN, serum creatinine, urinalysis with micro, blood-lead levels, peripheral smear morphology, red cell indices ^{1, 5} ; if requested by employee, pregnancy testing and fertility testing (female/male)
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee

Continued on page 24

Continued from page 23

Employee counseling re: exam results, conditions of increased risk	Yes – by physician; includes advising the employee of any medical condition, occupational or non-occupational, requiring further medical examination or treatment
Medical removal plan	Yes ⁵

Methylene Chloride

1910.1052(j); 1926.1152*

Standard Requirements

Pre-placement exam	Yes ^{1, 4}
Periodic exam	Yes ^{1, 4}
Emergency/exposure examination and tests	Yes ⁴ – see standard for specifics
Termination exam	Yes – if no exam within 6 months of termination
Examination includes special emphasis on these body systems	Lungs, cardiovascular (including BP and pulse), liver, nervous, skin; extent of exam determined by examiner based on employee's health status, work, and medical history
Work and medical history	Required for all exams; example of work and medical history form provided in standard, Appendix B
Chest x-ray	No
Pulmonary function test (PFT)	No – unless deemed necessary by physician or other licensed healthcare professional
Other required tests	Laboratory surveillance may include tests as determined by examiner including "before and after shift tests"; see standard, Appendix B
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – by physician or other licensed healthcare professional to employer and employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician or other licensed healthcare professional
Medical removal plan	Yes ⁵

Methylenedianiline

1910.1050(m)

Standard Requirements

Pre-placement exam	Yes ^{1, 3, 4}
Periodic exam	Yes – annual ^{1, 4}
Emergency/exposure examination and tests	Yes ^{1, 4}
Termination exam	No
Examination includes special emphasis on these body systems	Skin, hepatic
Work and medical history	Required for all examinations ² ; includes past work with MDA and other specific items; see standard
Chest x-ray	No
Pulmonary function test (PFT)	No
Other required tests	Liver function tests, urinalysis
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician
Medical removal plan	Yes ⁵

Noise

1910.95(g); 1926.52[†]

Standard Requirements

Pre-placement exam	No, but baseline audiogram required within 6 months of exposure at or above 85dB; Mobile test van exception, within one year of exposure at or above 85dB ¹
Periodic exam	Annual audiogram testing required
Emergency/exposure examination and tests	No
Termination exam	No
Examination includes special emphasis on these body systems	No
Work and medical history	No
Chest x-ray	No
Pulmonary function test (PFT)	No
Other required tests	Initial and annual audiometric testing ^{1, 4, 5} ; see standard re: specific qualifications for the test administrator
Evaluation of ability to wear a respirator	No
Additional tests if deemed necessary	Yes
Written medical opinion	No
Employee counseling re: exam results, conditions of increased risk	Yes – if standard threshold shift or suspected ear pathology
Medical removal plan	No

Respiratory Protection

1910.134(e); 1926.103*

Standard Requirements

Pre-placement exam	Evaluation questionnaire or exam; follow-up exam when required ⁵
Periodic exam	Yes – in specific situations ⁵
Emergency/exposure examination and tests	No
Termination exam	No
Examination includes special emphasis on these body systems	Yes ⁵ – see standard, Appendix C
Work and medical history	Yes ² – see standard, medical questionnaire in Appendix C
Chest x-ray	As determined by physician or other licensed healthcare professional
Pulmonary function test (PFT)	As determined by physician or other licensed healthcare professional
Other required tests	As determined by physician or other licensed healthcare professional
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician or other licensed healthcare professional to employer and employee
Employee counseling re: exam results, conditions of increased risk	Yes – by physician or other licensed healthcare professional
Medical removal plan	No

Vinyl Chloride

1910.1017(k); 1926.1117*

Standard Requirements

Pre-placement exam	Yes ¹
Periodic exam	Yes ¹
Emergency/exposure examination and tests	Yes
Termination exam	No
Examination includes special emphasis on these body systems	Special attention to detecting enlargement of the liver, spleen or kidneys, or dysfunction of these organs and abnormalities in skin, connective tissue and pulmonary system; see standard, Appendix A
Work and medical history	Required for initial and periodic exams ² ; includes alcohol intake, history of hepatitis, exposure to hepatotoxic agents, blood transfusions, hospitalizations, and work history
Chest x-ray	No
Pulmonary function test (PFT)	No
Other required tests	Blood test for total bilirubin, alkaline phosphatase, SGOT, SGPT and gamma glutamyl transpeptidase
Evaluation of ability to wear a respirator	Yes
Additional tests if deemed necessary	Yes
Written medical opinion	Yes – physician to employer; employer to employee
Employee counseling re: exam results, conditions of increased risk	No
Medical removal plan	Yes ⁵

Footnotes

¹ Pre-placement and periodic examinations are dependent upon specific factors cited in the standard such as airborne concentrations of the substance and/or years of exposure, biological indices, age of employee, amount of time exposed per year. In addition, some standards require periodic exams to be conducted at varying time intervals. Refer to standard for complete details.

² Standard requires medical and work history focused on special body systems, symptoms, personal habits, and/or specific family, environmental or occupational history. Refer to standard for complete details.

³ No examination required if previous examination done within specified time frame (e.g., 6 months or 12 months) and provisions of standard met. Refer to standard for details.

⁴ Additional physician review: Some standards have provisions for referring employees with abnormalities to a specialist as deemed necessary by examiner. Other standards have provisions for multiple physician review. See specific standard for details.

⁵ Standard requires specific protocol. See standard for details.

* These Maritime and Construction standards are identical to 29 CFR 1910, General Industry standards.

† 1926.52 requires an effective and continued hearing conservation program. OSHA has interpreted this to include baseline and annual audiometry. See Letter of Interpretation dated August 4, 1992.

Workers' Rights

Under OSHA law, workers are entitled to working conditions that do not pose a risk of serious harm. To help assure a safe and healthful workplace, the law provides workers with the right to:

- File a confidential complaint with OSHA to have their workplace inspected.
- Receive information and training about hazards, methods to prevent harm, and the OSHA standards that apply to their workplace. The training must be done in a language and vocabulary workers can understand.
- Receive copies of records of work-related injuries and illnesses that occur in their workplace.
- Receive copies of the results from tests and monitoring done to find and measure hazards in their workplace.
- Receive copies of their workplace medical records.
- Participate in an OSHA inspection and speak in private with the inspector.
- File a complaint with OSHA if they have been retaliated against by their employer as the result of requesting an inspection or using any of their other rights under the OSH Act.
- File a complaint if punished or retaliated against for acting as a “whistleblower” under the 21 additional federal laws for which OSHA has jurisdiction.

For more information, visit OSHA's Workers' Rights page at www.osha.gov/workers.html.

OSHA Assistance, Services and Programs

OSHA offers free compliance assistance to employers and workers. Several OSHA programs and services can help employers identify and correct job hazards, as well as improve their injury and illness prevention program.

Establishing an Injury and Illness Prevention Program

The key to a safe and healthful work environment is a comprehensive injury and illness prevention program. Injury and illness prevention programs are systems that can substantially reduce the number and severity of workplace injuries and illnesses, while reducing costs to employers. Thousands of

employers across the United States already manage safety using illness and injury prevention programs, and OSHA believes that all employers can and should do the same. Thirty-four states have requirements or voluntary guidelines for workplace injury and illness prevention programs. Most successful injury and illness prevention programs are based on a common set of key elements. These include management leadership, worker participation, hazard identification, hazard prevention and control, education and training, and program evaluation and improvement. Visit OSHA's illness and injury prevention program web page at www.osha.gov/dsg/topics/safetyhealth for more information.

Compliance Assistance Specialists

OSHA has compliance assistance specialists throughout the nation located in most OSHA offices. Compliance assistance specialists can provide information to employers and workers about OSHA standards, short educational programs on specific hazards or OSHA rights and responsibilities, and information on additional compliance assistance resources. For more details, visit www.osha.gov/dcsp/compliance_assistance/cas.html or call 1-800-321-OSHA [6742] to contact your local OSHA office.

Free On-site Safety and Health Consultation Services for Small Business

OSHA's On-site Consultation Program offers free and confidential advice to small and medium-sized businesses in all states across the country, with priority given to high-hazard worksites. Each year, responding to requests from small employers looking to create or improve their safety and health management programs, OSHA's On-site Consultation Program conducts over 29,000 visits to small business worksites covering over 1.5 million workers across the nation.

On-site consultation services are separate from enforcement and do not result in penalties or citations. Consultants from state agencies or universities work with employers to identify workplace hazards, provide advice on compliance with OSHA standards, and assist in establishing safety and health management programs.

For more information, to find the local On-site Consultation office in your state, or to request a brochure on Consultation Services, visit

www.osha.gov/consultation, or call 1-800-321-OSHA [6742].

Cooperative Programs

OSHA offers cooperative programs under which businesses, labor groups and other organizations can work cooperatively with OSHA. To find out more about any of the following programs, visit www.osha.gov/dcsp/compliance_assistance/index_programs.html.

Strategic Partnerships and Alliances

The OSHA Strategic Partnerships (OSP) provides the opportunity for OSHA to partner with employers, workers, professional or trade associations, labor organizations, and/or other interested stakeholders. OSHA Strategic Partnerships are formalized through unique agreements designed to encourage, assist, and recognize partner efforts to eliminate serious hazards and achieve model workplace safety and health practices. Through the Alliance Program, OSHA works with groups committed to worker safety and health to prevent workplace fatalities, injuries and illnesses by developing compliance assistance tools and resources to share with workers and employers, and educate workers and employers about their rights and responsibilities.

Voluntary Protection Programs (VPP)

The VPP recognize employers and workers in private industry and federal agencies who have implemented effective safety and health management programs and maintain injury and illness rates below the national average for their respective industries. In VPP, management, labor, and OSHA work cooperatively and proactively to prevent fatalities, injuries, and illnesses through a system focused on: hazard prevention and control, worksite analysis, training, and management commitment and worker involvement.

Occupational Safety and Health Training

The OSHA Training Institute in Arlington Heights, Illinois, provides basic and advanced training and education in safety and health for federal and state compliance officers, state consultants, other federal agency personnel and private sector employers, workers, and their representatives. In addition, 27 OSHA Training Institute Education Centers at 42 locations throughout the United States deliver courses on OSHA standards and occupational safety and health issues to thousands of students a year.

For more information on training, contact the OSHA Directorate of Training and Education, 2020 Arlington Heights Road, Arlington Heights, IL 60005; call 1-847-297-4810; or visit www.osha.gov.

OSHA Educational Materials

OSHA has many types of educational materials in English, Spanish, Vietnamese and other languages available in print or online.

To view materials available online or for a listing of free publications, visit OSHA's web site at www.osha.gov. You can also call 1-800-321-OSHA [6742] to order publications.

OSHA's web site also has a variety of eTools. These include utilities such as expert advisors, electronic compliance assistance, videos and other information for employers and workers. To learn more about OSHA's safety and health tools online, visit www.osha.gov.

NIOSH Health Hazard Evaluation Program

Getting Help with Health Hazards

The National Institute for Occupational Safety and Health (NIOSH) is a federal agency that conducts scientific and medical research on workers' safety and health. At no cost to employers or workers, NIOSH can help identify health hazards and recommend ways to reduce or eliminate those hazards in the workplace through its Health Hazard Evaluation (HHE) Program.

Workers, union representatives and employers can request a NIOSH HHE. An HHE is often requested when there is a higher than expected rate of a disease or injury in a group of workers. These situations may be the result of an unknown cause, a new hazard, or a mixture of sources. To request a NIOSH Health Hazard Evaluation go to www.cdc.gov/niosh/hhe/request.html. To find out more about the Health Hazard Evaluation Program:

- Call (513) 841-4382, or to talk to a staff member in Spanish, call (513) 841-4439; or
- Send an email to HHERequestHelp@cdc.gov.

OSHA Regional Offices

Region I

Boston Regional Office
(CT*, ME, MA, NH, RI, VT*)
JFK Federal Building, Room E340
Boston, MA 02203
(617) 565-9860 (617) 565-9827 Fax

Region II

New York Regional Office
(NJ*, NY*, PR*, VI*)
201 Varick Street, Room 670
New York, NY 10014
(212) 337-2378 (212) 337-2371 Fax

Region III

Philadelphia Regional Office
(DE, DC, MD*, PA, VA*, WV)
The Curtis Center
170 S. Independence Mall West
Suite 740 West
Philadelphia, PA 19106-3309
(215) 861-4900 (215) 861-4904 Fax

Region IV

Atlanta Regional Office
(AL, FL, GA, KY*, MS, NC*, SC*, TN*)
61 Forsyth Street, SW, Room 6T50
Atlanta, GA 30303
(678) 237-0400 (678) 237-0447 Fax

Region V

Chicago Regional Office
(IL*, IN*, MI*, MN*, OH, WI)
230 South Dearborn Street
Room 3244
Chicago, IL 60604
(312) 353-2220 (312) 353-7774 Fax

Region VI

Dallas Regional Office
(AR, LA, NM*, OK, TX)
525 Griffin Street, Room 602
Dallas, TX 75202
(972) 850-4145 (972) 850-4149 Fax
(972) 850-4150 FSO Fax

Region VII

Kansas City Regional Office
(IA*, KS, MO, NE)
Two Pershing Square Building
2300 Main Street, Suite 1010
Kansas City, MO 64108-2416
(816) 283-8745 (816) 283-0547 Fax

Region VIII

Denver Regional Office
(CO, MT, ND, SD, UT*, WY*)
Cesar Chavez Memorial Building
1244 Speer Boulevard, Suite 551
Denver, CO 80204
(720) 264-6550 (720) 264-6585 Fax

Region IX

San Francisco Regional Office
(AZ*, CA*, HI*, NV*, and American Samoa,
Guam and the Northern Mariana Islands)
90 7th Street, Suite 18100
San Francisco, CA 94103
(415) 625-2547 (415) 625-2534 Fax

Region X

Seattle Regional Office
(AK*, ID, OR*, WA*)
300 Fifth Avenue, Suite 1280
Seattle, WA 98104
(206) 757-6700 (206) 757-6705 Fax

* These states and territories operate their own OSHA-approved job safety and health plans and cover state and local government employees as well as private sector employees. The Connecticut, Illinois, New Jersey, New York and Virgin Islands programs cover public employees only. (Private sector workers in these states are covered by Federal OSHA). States with approved programs must have standards that are identical to, or at least as effective as, the Federal OSHA standards.

Note: To get contact information for OSHA area offices, OSHA-approved state plans and OSHA consultation projects, please visit us online at www.osha.gov or call us at 1-800-321-OSHA (6742).

How to Contact OSHA

For questions or to get information or advice, to report an emergency, report a fatality or catastrophe, order publications, sign up for OSHA's e-newsletter *QuickTakes*, or to file a confidential complaint, contact your nearest OSHA office, visit www.osha.gov or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

**For assistance, contact us.
We are OSHA. We can help.**





U.S. Department of Labor

For more information



**Occupational
Safety and Health
Administration**

www.osha.gov (800) 321-OSHA (6742)