

# WASHINGTON

STATUTES :        (0)

(NONE)

## Terms

## References

Industrial Hygiene	0
Industrial Hygienist	0
Certified Industrial Hygienist - CIH	0
Certified Associate Industrial Hygienist	0
Construction Health and Safety Technician– CHST	0
Industrial Hygienist in Training - IHIT	0
AIHA Lab Accreditation Program	0
American Industrial Hygiene Association - AIHA	0
American Board of Industrial Hygiene - ABIH	0
American Conference of Governmental Industrial Hygienists – ACGIH	0
Occupational Health and Safety Technologist – OHST	0
Associate Safety Professional – ASP	0
Certified Safety Professional – CSP	0
Board of Certified Safety Professionals – BCSP	0

# **WASHINGTON**

## **RULES AND REGULATIONS: (15)**

### **WASHINGTON ADMINISTRATIVE CODE:**

**CHAPTER 296-62 WAC  
GENERAL OCCUPATIONAL HEALTH STANDARDS**

**CHAPTER 365-230  
ACCREDITATION OF LEAD-BASED PAINT TRAINING  
PROGRAMS AND THE CERTIFICATION OF FIRMS AND  
INDIVIDUALS CONDUCTING LEAD-BASED PAINT ACTIVITIES  
AND RENOVATION**

**CHAPTER 296-307 WAC  
SAFETY STANDARDS FOR AGRICULTURE**

**CHAPTER 296-817 WAC  
HEARING LOSS PREVENTION (NOISE)**

**CHAPTER 296-824 WAC  
EMERGENCY RESPONSE**

**CHAPTER 296-304 WAC  
SAFETY STANDARDS FOR SHIP REPAIRING, SHIPBUILDING AND  
SHIPBREAKING**

**CHAPTER 296-17A WAC  
CLASSIFICATIONS FOR WASHINGTON WORKERS'  
COMPENSATION INSURANCE**

**CHAPTER 296-856 WAC  
FORMALDEHYDE**

**CHAPTER 173-303 WAC  
DANGEROUS WASTE REGULATIONS**

**CHAPTER 296-802 WAC  
EMPLOYEE MEDICAL AND EXPOSURE RECORDS**

**CHAPTER 173-306 WAC  
SPECIAL INCINERATOR ASH MANAGEMENT STANDARDS**

**CHAPTER 296-155 WAC  
SAFETY STANDARDS FOR CONSTRUCTION WORK**

**CHAPTER 296-56 WAC  
SAFETY STANDARDS – LONGSHORE, STEVEDORE AND  
WATERFRONT RELATED OPERATIONS**

**CHAPTER 296-901 WAC  
GOBALLY HARMONIZED SYSTEM FOR HAZARD  
COMMUNICATION**

**CHAPTER 296-816 WAC  
PROTECTING TRADE SECRETS**

**Terms**

**References**

Industrial Hygiene	18
Industrial Hygienist	15
Certified Industrial Hygienist - CIH	10
Certified Associate Industrial Hygienist	0
Construction Health and Safety Technician– CHST	0
Industrial Hygienist in Training - IHIT	1
AIHA Lab Accreditation Program and related	2
American Industrial Hygiene Association - AIHA	6
American Board of Industrial Hygiene - ABIH	2
American Conference of Governmental Industrial Hygienists – ACGIH	15
Occupational Health and Safety Technologist – OHST	0
Associate Safety Professional – ASP	0
Certified Safety Professional – CSP	1
Board of Certified Safety Professionals – BCSP	0

**WASHINGTON STATUTES**

**REVISED CODE OF WASHINGTON (STATUTES)**

**(NONE)**

# **WASHINGTON RULES/REGULATIONS**

**<http://apps.leg.wa.gov/wac/default.aspx?dispo=true&cite=296-62&full=true>**

## **WASHINGTON ADMINISTRATIVE CODE**

### **CHAPTER 296-62 WAC** **GENERAL OCCUPATIONAL HEALTH STANDARDS**

#### **296-62-05301**

##### **Definitions.**

Threshold limit values (TLVs) refer to airborne concentrations of substances without regard to the use of respiratory protection and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect. The TLV includes the TLV-Time weighted average (TLV-TWA), TLV-Short term exposure limit (TLV-STEL), TLV-Ceiling (TLV-Ceiling) and "skin" notation as stated in the most recent edition of the 'Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices' from the **American Conference of Governmental Industrial Hygienists (ACGIH)**.

#### **296-62-060**

##### **Control requirements in addition to those specified.**

(3) Monitoring of employees. The department shall use **industrial hygiene** sampling methods and techniques including but not limited to personal monitoring devices and equipment approved by the director or his designee for the purpose of establishing compliance with chapter 296-62 WAC.

(a) The employer shall permit the director or his designee to monitor and evaluate any workplace or employee in accordance with all provisions of this subsection.

(b) The employer shall not prevent or discourage an employee from cooperating with the department by restricting or inhibiting his/her participation in the use of personal monitoring devices and equipment in accordance with all provisions of this subsection.

**296-62-07338**

**Appendix B—Substance technical guidelines for acrylonitrile.**

(4) Monitoring and measurement procedures.

(a) Exposure above the permissible exposure limit:

(iv) Appendix D lists methods of sampling and analysis which have been tested by NIOSH and OSHA for use with acrylonitrile. NIOSH and OSHA have validated modifications of NIOSH Method S-156 (see Appendix D) under laboratory conditions for concentrations below 1 ppm. The employer has the obligation of selecting a monitoring method which meets the accuracy and precision requirements of the standard under his/her unique field conditions. The standard requires that methods of monitoring must be accurate, to a 95-percent confidence level, to  $\pm 35$ -percent for concentrations of AN at or above 2 ppm, and to  $\pm 50$ -percent for concentrations below 2 ppm. In addition to the methods described in Appendix D, there are numerous other methods available for monitoring for AN in the workplace. Details on these other methods have been submitted by various companies to the rulemaking record, and are available at the OSHA Docket Office.

(b) Since many of the duties relating to employee exposure are dependent on the results of monitoring and measuring procedures, employers shall assure that the evaluation of employee exposures is performed by a competent **industrial hygienist** or other technically qualified person.

**296-62-07344**

**Appendix B—Substance technical guidelines for DBCP.**

(4) Monitoring and measurement procedures.

(a) Exposure above the permissible exposure limit.

(i) Eight hour exposure evaluation: Measurements taken for the purpose of determining employee exposure under this section are best taken so that the average eight-hour exposure may be determined from a single eight-hour sample or two four-hour samples. Air samples should be taken in the employee's breathing zone (air that would most nearly represent that inhaled by the employee).

(ii) Monitoring techniques: The sampling and analysis under this section may be performed by collecting the DBCP vapor on petroleum based charcoal absorption tubes with subsequent chemical analyses. The method of measurement chosen should determine the concentration of airborne DBCP at the permissible exposure limit to an accuracy of plus or minus twenty-five percent. If charcoal tubes are used, a total volume of ten liters should be collected at a flow rate of 50 cc per minute for each tube. Analyze the resultant samples as you would samples of halogenated solvent.

(b) Since many of the duties relating to employee protection are dependent on the results of monitoring and measuring procedures, employers should assure that the evaluation of employee exposures is performed by a competent **industrial hygienist** or other technically qualified person.

**296-62-07389**

**Appendix D—Sampling and analytical methods for ethylene oxide (nonmandatory).**

(4) Summary of other sampling procedures. OSHA believes that several other types of monitoring equipment and techniques exist for monitoring time-weighted averages. Considerable research and method development is currently being performed, which will lead to improvements and a wider variety of monitoring techniques. A combination of monitoring procedures can be used. There probably is no one best method for monitoring personal exposure to ethylene oxide in all cases. There are advantages, disadvantages, and limitations to each method. The method of choice will depend on the need and requirements. Some commonly used methods include the use of charcoal tubes, passive dosimeters, Tedler gas sampling bags, detector tubes, photoionization detection units, infrared detection units and gas chromatographs. A number of these methods are described below.

(a) Charcoal tube sampling procedures.

(ii) ASTM-proposed method—The Ethylene Oxide Industry Council (EOIC) has contracted with Clayton Environmental Consultants, Inc. to conduct a collaborative study for the proposed method. The ASTM-Proposed method is similar to the method published by Qazi and Ketcham in the November 1977 American Industrial Hygiene Association Journal, and to the method of Pilney and Coyne, presented at the 1979 American Industrial Hygiene Conference. After the air to be sampled is drawn through an activated charcoal tube, the ethylene oxide is desorbed from the tube using carbon disulfide and is quantitated by gas chromatography utilizing a flame ionization detector. The ASTM-proposed method specifies a large two-section charcoal tube, shipment in dry ice, storage at less than -5°C, and analysis within three weeks to prevent migration and sample loss. Two types of charcoal tubes are being tested—Pittsburgh Coconut-Based (PCB) and columbia JXC charcoal. This collaborative study will give an indication of the inter- and intralaboratory precision and accuracy of the ASTM/proposed method. Several laboratories have considerable expertise using the Qazi-Ketcham and Dow methods.

**296-62-07441**

**Appendix A, substance safety data sheet—Cadmium.**

(4) Physician information.

(a) Introduction. The medical surveillance provisions of WAC 296-62-07423 generally are aimed at accomplishing three main interrelated purposes: First, identifying employees at higher risk of adverse health effects from excess, chronic exposure to cadmium; second, preventing cadmium-induced disease; and third, detecting and minimizing existing cadmium-induced disease. The core of medical surveillance in this standard is the early and periodic monitoring of the employee's biological indicators of:

(iii) Lung and prostate cancer. The primary sites for cadmium-associated cancer appear to be the lung and the prostate (L-140-50). Evidence for an association between cancer and cadmium exposure derives from both epidemiological studies and animal experiments. Mortality from prostate cancer associated with cadmium is slightly elevated in several industrial cohorts, but the number of cases is small and there is not clear dose-response relationship. More substantive evidence exists for lung cancer. The major epidemiological study of lung cancer was conducted by Thun et al., (Ex. 4-68). Adequate data on cadmium exposures were available to allow evaluation of dose-response relationships between cadmium exposure and lung cancer. A statistically significant excess of lung cancer attributed to cadmium exposure was observed in this study even when confounding variables such as co-exposure to arsenic and smoking habits were taken into consideration (Ex. L-140-50). The primary evidence for quantifying a link between lung cancer and cadmium exposure from animal studies derives from two rat bioassay studies; one by Takenaka et al., (1983), which is a study of cadmium chloride and a second study by Oldiges and Glaser (1990) of four cadmium compounds. Based on the above cited studies, the U.S. Environmental Protection Agency (EPA) classified cadmium as "B1," a probable human carcinogen, in 1985 (Ex. 4-4). The International Agency for Research on Cancer (IARC) in 1987 also recommended that cadmium be listed as "2A," a probable human carcinogen (Ex. 4-15). The **American Conference of Governmental Industrial Hygienists (ACGIH)** has recently recommended that cadmium be labeled as a carcinogen. Since 1984, NIOSH has concluded that cadmium is possibly a human carcinogen and has recommended that exposures be controlled to the lowest level feasible.

**296-62-07449**

**Appendix E—Cadmium in workplace atmospheres.**

(5) References.

(c) Occupational Safety and Health Administration Salt Lake Technical Center: Metal and Metalloid Particulate in Workplace Atmospheres (Atomic Absorption) (USDOL/OSHA Method No. ID-121). In OSHA Analytical Methods Manual 2nd ed. Cincinnati, OH: **American Conference of Governmental Industrial Hygienists**, 1991.

(d) Occupational Safety and Health Administration Salt Lake Technical Center: Metal and Metalloid Particulate in Workplace Atmospheres (ICP) (USDOL/OSHA Method No. ID-125G). In OSHA Analytical Methods Manual 2nd ed. Cincinnati, OH: **American Conference of Governmental Industrial Hygienists**, 1991.

(l) Occupational Safety and Health Administration Analytical Laboratory: Precision and Accuracy Data Protocol for Laboratory Validations. In OSHA Analytical Methods Manual 1st ed. Cincinnati, OH: **American Conference of Governmental Industrial Hygienists** (Pub. No. ISBN: 0-936712-66-X), 1985.

(m) Long, G.L. and J.D. Winefordner: Limit of Detection—A Closer Look at the IUPAC Definition. *Anal.Chem.* 55: 712A-724A (1983).



(n) **American Conference of Governmental Industrial Hygienists**: Documentation of Threshold Limit Values and Biological Exposure Indices. 5th ed. Cincinnati, OH: American Conference of Governmental Industrial Hygienists, 1986.

**296-62-07460**  
**Butadiene.**

(4) Respirators and Protective Clothing.

(a) Respirators: Good **industrial hygiene** practices recommend that engineering and work practice controls be used to reduce environmental concentrations to the permissible exposure level. However, there are some exceptions where respirators may be used to control exposure. Respirators may be used when engineering and work practice controls are not technically feasible, when such controls are in the process of being installed, or when these controls fail and need to be supplemented or during brief, nonroutine, intermittent exposure. Respirators may also be used in situations involving nonroutine work operations which are performed infrequently and in which exposures are limited in duration, and in emergency situations. In some instances cartridge respirator use is allowed, but only with strict time constraints. For example, at exposure below 5 ppm BD, a cartridge (or canister) respirator, either full or half face, may be used, but the cartridge must be replaced at least every 4 hours, and it must be replaced every 3 hours when the exposure is between 5 and 10 ppm.

Appendix B. Substance Technical Guidelines for 1,3-Butadiene (Non-Mandatory)

(2) Fire, Explosion, and Reactivity Hazard Data.

(c) Warning Properties:

(i) Odor Threshold: An odor threshold of 0.45 ppm has been reported in The **American Industrial Hygiene Association (AIHA)** Report, Odor Thresholds for Chemicals with Established Occupational Health Standards. (Ex. 32-28C).

(ii) Eye Irritation Level: Workers exposed to vapors of BD (concentration or purity unspecified) have complained of irritation of eyes, nasal passages, throat, and lungs. Dogs and rabbits exposed experimentally to as much as 6700 ppm for 7 1/2 hours a day for 8 months have developed no histologically demonstrable abnormality of the eyes.

Appendix D: Sampling and Analytical Method for 1,3-Butadiene (Nonmandatory)

(f) Interferences (analytical).

(i) Any compound with the same general retention time as the analyte and which also gives a detector response is a potential interference. Possible interferences should be reported by the **industrial hygienist** to the laboratory with submitted samples.

(ii) GC parameters (temperature, column, etc.) may be changed to circumvent interferences.

(iii) A useful means of structure designation is GC/MS. It is recommended that this procedure be used to confirm samples whenever possible.

## **296-62-07473**

### **Appendix A.**

A. Respirators: Good **industrial hygiene** practices recommend that engineering controls be used to reduce environmental concentrations to the permissible exposure level. However, there are some exceptions where respirators may be used to control exposure. Respirators may be used when engineering and work practice controls are not feasible, when such controls are in the process of being installed, or when these controls fail and need to be supplemented. Respirators may also be used for operations which require entry into tanks or closed vessels, and in emergency situations. If the use of respirators is necessary, the only respirators permitted are those that have been approved by the National Institute for Occupational Safety and Health (NIOSH). Supplied-air respirators are required because air-purifying respirators do not provide adequate respiratory protection against MC. In addition to respirator selection, a complete written respiratory protection program should be instituted which includes regular training, maintenance, inspection, cleaning, and evaluation. If you can smell MC while wearing a respirator, proceed immediately to fresh air. If you experience difficulty in breathing while wearing a respirator, tell your employer.

## **296-62-07540**

### **Formaldehyde.**

(12) Medical surveillance.

(C) A statement that the employee has been informed by the physician of any medical conditions which would be aggravated by exposure to formaldehyde, whether these conditions may have resulted from past formaldehyde exposure or from exposure in an emergency, and whether there is a need for further examination or treatment.

(h) Medical removal.

(ii) An employee's report of signs or symptoms of possible overexposure to formaldehyde shall be evaluated by a physician selected by the employer pursuant to (c) of this subsection. If the physician determines that a medical examination is not necessary under (c)(ii) of this subsection, there shall be a two-week evaluation and remediation period to permit the employer to ascertain whether the signs or symptoms subside untreated or with the use of creams, gloves, first-aid treatment, or personal protective equipment.

**Industrial hygiene** measures that limit the employee's exposure to formaldehyde may also be implemented during this period. The employee shall be referred immediately to a physician prior to expiration of the two-week period if the signs or symptoms worsen. Earnings, seniority, and benefits may not be altered during the two-week period by virtue of the report.

**296-62-07544**

**Appendix B—Sampling strategy and analytical methods for formaldehyde.**

(34) Column temperature:

(h) Detector temperature: 275 5151C.

(i) Use a suitable method, such as electronic integration, to measure detector response.

(ii) Use an internal standard method to prepare the calibration curve with several standard solutions of different concentrations. Prepare the calibration curve daily. Program the integrator to report results in ug/mL.

(iii) Bracket sample concentrations with standards.

(iv) Interferences (analytical).

(A) Any compound with the same general retention time as the analytes and which also gives a detector response is a potential interference. Possible interferences should be reported to the laboratory with submitted samples by the **industrial hygienist**.

(B) GC parameters (temperature, column, etc.), may be changed to circumvent interferences.

**296-62-07660**

**Appendix D to WAC 296-62-076—Sampling and analytical methods for MDA monitoring and measurement procedures.**

Chromatogram:

Peak areas or heights are measured by an integrator or other suitable means.

A calibration curve is constructed by plotting response (peak areas or heights) of standard injections versus ug of MDA per sample. Sample concentrations must be bracketed by standards.

Interferences (analytical):

Any compound that gives an electron capture detector response and has the same general retention time as the HFAA derivative of MDA is a potential interference. Suspected interferences reported to the laboratory with submitted samples by the **industrial hygienist** must be considered before samples are derivatized.

**296-62-07703**

**Definitions.**

**Certified industrial hygienist (CIH)** means one certified in the practice of **industrial hygiene** by the **American Board of Industrial Hygiene**.

**Industrial hygienist** means a professional qualified by education, training, and experience to anticipate, recognize, evaluate and develop controls for occupational health hazards.

## **296-62-07712**

### **Requirements for asbestos activities in construction and shipyard work.**

(8) Alternative control methods for Class I work. Class I work may be performed using a control method which is not referenced in subsection (2)(a) through (3)(e) of this section, or which modifies a control method referenced in subsection (2)(a) through (3)(e) of this section, if the following provisions are complied with:

(a) The control method shall enclose, contain or isolate the processes or source of airborne asbestos dust, before it enters the breathing zone of employees.

(b) A **certified industrial hygienist** or licensed professional engineer who is also qualified as a project designer as defined in WAC 296-62-07703, shall evaluate the work area, the projected work practices and the engineering controls and shall certify in writing that the planned control method is adequate to reduce direct and indirect employee exposure to below the PELs under worst-case conditions of use, and that the planned control method will prevent asbestos contamination outside the regulated area, as measured by clearance sampling which meets the requirements of EPA's Asbestos in Schools rule issued under AHERA, or perimeter monitoring which meets the criteria in subsection (6)(b)(ii) of this section. Where the TSI or surfacing material to be removed is twenty-five linear or ten square feet or less, the evaluation required in subsection (8)(b) of this section may be performed by a competent person.

(10) Additional controls for Class II work. Class II asbestos work must also be performed by complying with the work practices and controls designated for each type of asbestos work to be performed, set out in this paragraph. Where more than one control method may be used for a type of asbestos work, the employer may choose one or a combination of designated control methods. Class II work also may be performed using a method allowed for Class I work, except that glove bags and glove boxes are allowed if they fully enclose the Class II material to be removed.

(a) For removing vinyl and asphalt flooring materials which contain ACM or for which in buildings constructed no later than 1980, the employer has not verified the absence of ACM according to WAC 296-62-07712 (10)(a)(ix). The employer must ensure that employees comply with the following work practices and that employees are trained in these practices according to WAC 296-62-07722.

(ix) Resilient flooring material including associated mastic and backing must be assumed to be asbestos-containing unless an **industrial hygienist** determines that it is asbestos-free using recognized analytical techniques.

**296-62-07721**

**Communication of hazards to employees.**

(3) Criteria to rebut the designation of installed material as PACM.

(b) An employer or owner may demonstrate that PACM does not contain asbestos by the following:

(ii) Performing tests of the material containing PACM which demonstrate that no asbestos is present in the material. Such tests must include analysis of bulk samples collected in the manner described in 40 C.F.R. 763.86, Asbestos-containing materials in schools. The tests, evaluation and sample collection must be conducted by an accredited inspector. Analysis of samples must be performed by persons or laboratories with proficiency demonstrated by current successful participation in a nationally recognized testing program such as the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute for Standards and Technology (NIST) or the Round Robin for bulk samples administered by the **American Industrial Hygiene Associate (AIHA), or an equivalent nationally recognized Round Robin testing program.**

**296-62-07735**

**Appendix A—WISHA reference method—Mandatory.**

(2) Quality control procedures.

(b) Interlaboratory program.

(ii) All laboratories should participate in a national sample testing scheme such as the **Proficiency Analytical Testing Program (PAT), the Asbestos Registry sponsored by the American Industrial Hygiene Association (AIHA).**

**296-62-07737**

**Appendix B—Detailed procedure for asbestos sampling and analysis—  
Nonmandatory.**

7. Calculations.

If a pair of counts are rejected by this criterion then, recount the rest of the filters in the submitted set. Apply the test and reject any other pairs failing the test. Rejection shall include a memo to the **industrial hygienist** stating that the sample failed a statistical test for homogeneity and the true air concentration may be significantly different than the reported value.

(d) Reporting Results. Report results to the **industrial hygienist** as fibers/cc. Use two significant figures. If multiple analyses are performed on a sample, an average of the results is to be reported unless any of the results can be rejected for cause.

**296-62-09004**

**Ionizing radiation.**

(13) Notification of incidents.

(a) Immediate notification. Each employer shall immediately notify the **industrial hygiene** section, division of industrial safety and health for employees not protected by the Nuclear Regulatory Commission by means of 10 C.F.R. Part 20; subsection (2)(b) of this section by telephone or telegraph of any incident involving radiation which may have caused or threatens to cause:

(b) Twenty-four hour notification. Each employer shall within twenty-four hours following its occurrence notify the **industrial hygiene** section, division of industrial safety and health, for employees not protected by the Nuclear Regulatory Commission by means of 10 C.F.R. Part 20; subsection (2)(b) of this section, by telephone or telegraph of any incident involving radiation which may have caused or threatens to cause:

(14) Reports of overexposure and excessive levels and concentrations.

(a) In addition to any notification required by subsection (13) of this section each employer shall make a report in writing within thirty days to the **industrial hygiene** section division of industrial safety and health, for employees not protected by the Nuclear Regulatory Commission by means of 10 C.F.R. Part 20; or under subsection (2)(b) of this section, of each exposure of an individual to radiation or concentrations of radioactive material in excess of any applicable limit in this section. Each report required under this subdivision shall describe the extent of exposure of persons to radiation or to radioactive material; levels of radiation and concentration of radioactive material involved, the cause of the exposure, levels of concentrations; and corrective steps taken or planned to assure against a recurrence.

(b) In any case where an employer is required pursuant to the provisions of this subsection to report to the **industrial hygiene** section, division of industrial safety and health, any exposure of an individual to radiation or to concentrations of radioactive material, the employer shall also notify such individual of the nature and extent of exposure. Such notice shall be in writing and shall contain the following statement: "You should preserve this report for future reference."

(18) Radiation standards for mining.

(c)(i) For uranium mines, records of environmental concentrations in the occupied parts of the mine, and of the time spent in each area by each person involved in an underground work shall be established and maintained. These records shall be in sufficient detail to permit calculations of the exposures, in units of working level months,

of the individuals and shall be available for inspection by the **industrial hygiene** section, division of safety and health or their authorized representatives.

**296-62-13610**

**Ventilation guide.**

In addition to those mandatory controls as set forth in WAC 296-62-11019, chapter 296-818 WAC, Abrasive blasting, chapter 296-835 WAC, Dipping and coating operations (dip tanks), the Industrial Ventilation Manual of Recommended Practices as compiled and approved by the **American Conference of Governmental Industrial Hygienists**, applicable ANSI Standard or other National Consensus Standards recommended by the federal government, should be used as a guide for ventilation requirements.

**296-62-20029**

**Appendix B—Industrial hygiene and medical surveillance guidelines.**

# WASHINGTON RULES/REGULATIONS

<http://apps.leg.wa.gov/wac/default.aspx?dispo=true&cite=365-230&full=true>

## WASHINGTON ADMINISTRATIVE CODE

### CHAPTER 365-230

#### ACCREDITATION OF LEAD-BASED PAINT TRAINING PROGRAMS AND THE CERTIFICATION OF FIRMS AND INDIVIDUALS CONDUCTING LEAD-BASED PAINT ACTIVITIES AND RENOVATION

##### **365-230-040**

##### **Requirements for the accreditation of training programs.**

For a training program to obtain accreditation from the department to offer lead-based paint activities courses, lead-based paint renovation courses or dust sampling technician courses, the program shall meet the following requirements:

(1) The training program shall employ a training manager who has:

(a) At least two years of experience, education, or training in teaching workers or adults;  
or

(b) A bachelor's or graduate degree in building construction technology, engineering, **industrial hygiene**, safety, public health, education, business administration or program management or a related field; or

(c) Two years of experience in managing a training program specializing in environmental hazards; and

(d) Demonstrated experience, education, or training in the construction industry including: Lead or asbestos abatement, painting, carpentry, renovation, remodeling, occupational safety and health, or **industrial hygiene**.

(2) The training manager shall designate a qualified principal instructor for each course who has:

(c) Demonstrated experience, education, or training in lead or asbestos abatement, painting, carpentry, renovation, remodeling, occupational safety and health, or **industrial hygiene**.



**365-230-132**

**Inspector, risk assessor, or supervisor.**

- (1) To become certified by the department as an inspector, risk assessor, supervisor, pursuant to WAC 365-230-130, an individual must:
- (a) Successfully complete an accredited course in the appropriate discipline and receive a course completion certificate from an accredited training program.
  - (b) Pass the certification exam in the appropriate discipline offered by the department; and
  - (c) Meet or exceed the following experience and/or education requirements:
    - (i) Inspectors. No additional experience and/or education requirements.
    - (ii) Risk assessors.
      - (A) Successful completion of an accredited training course for inspectors; and
      - (B) Bachelor's degree and one year of experience in a related field (e.g., lead, asbestos, environmental remediation work, or construction), or an associates degree and two years experience in a related field (e.g., lead, asbestos, environmental remediation work, or construction); or
      - (C) **Certification as an industrial hygienist**, an engineer, a registered architect, **certified safety professional**, registered sanitarian, or registered environmental specialist; or

# **WASHINGTON RULES/REGULATIONS**

**<http://apps.leg.wa.gov/wac/default.aspx?dispo=true&cite=296-307&full=true>**

## **WASHINGTON ADMINISTRATIVE CODE**

### **CHAPTER 296-307 WAC** **SAFETY STANDARDS FOR AGRICULTURE**

#### **296-307-03930**

**Make sure emergency washing facilities are functional and readily accessible.**

You must:

- Provide an emergency shower:
  - When there is potential for major portions of an employee's body to contact corrosives, strong irritants, or toxic chemicals
  - That delivers water to cascade over the user's entire body at a minimum rate of 20 gallons (75 liters) per minute for fifteen minutes or more.
- Provide an emergency eyewash:
  - When there is potential for an employee's eyes to be exposed to corrosives, strong irritants, or toxic chemicals
  - That irrigates and flushes both eyes simultaneously while the user holds their eyes open
  - With an on-off valve that activates in one second or less and remains on without user assistance until intentionally turned off
  - That delivers at least 0.4 gallons (1.5 liters) of water per minute for fifteen minutes or more.

Note:

- Threshold Limit Values for Chemical Substances and Physical Agents **American Conference of Governmental Industrial Hygienists (ACGIH)**.

#### **296-307-465**

**Definitions.**

**ACGIH: American Conference of Governmental Industrial Hygienists.**

#### **296-307-52023**

**What level of carbon monoxide gas is allowed?**

Concentration levels of carbon monoxide gas created by truck operations must not exceed the levels specified in WAC 296-62-075, Part L (general occupational health standards).

Note:

Questions concerning degree of concentration and methods of sampling should be referred to a qualified **industrial hygienist**.

## **296-307-56010**

### **Conduct complete hazard evaluations.**

Table 4

Information Sources Identifying Hazardous Chemicals

• Sources that address a broad range of hazard categories:

– Chapter 296-62 WAC, General Occupational Health Standards, WISHA

– 29 C.F.R. Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA)

– Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment, **American Conference of Governmental Industrial Hygienists (ACGIH)** (latest edition).

## **296-307-56050**

### **Definitions.**

Threshold limit values (TLVs)

Airborne concentrations of substances established by the **American Conference of Governmental Industrial Hygienists (ACGIH)**, and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse health effects.

TLVs are specified in the most recent edition of the Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices and include the following categories:

- Threshold limit value-time-weighted average (TLV-TWA)
- Threshold limit value-short-term exposure limit (TLV-STEL)
- Threshold limit value-ceiling (TLV-C).

## **296-307-63635**

### **Make sure audiometric testing equipment meets these requirements.**

You must:

- Use pure tone, air conduction, hearing threshold examinations, with test frequencies including as a minimum 500, 1000, 2000, 3000, 4000, and 6000 Hz
  - Tests at each frequency must be taken separately for each ear
  - Supra-aural headphones must be used.
- Conduct audiometric tests with audiometers (including microprocessor audiometers) that meet the specifications of, and are maintained and used according to, American National Standard Specification for Audiometers, S3.6-1996
- Check the functional operation of the audiometer each day before use by doing all of the following:

- Make sure the audiometer's output is free from distorted or unwanted sound
- Test either a person with known, stable hearing thresholds or a bio-acoustic simulator
- Perform acoustic calibration for deviations of 10 dB or greater.
- Audiometer calibration must be checked acoustically at least annually to verify continued conformance with ANSI S3.6-1996. Test frequencies below 500 Hz and above 6000 Hz may be omitted from this check
- An exhaustive calibration must be performed at least every two years according to the American National Standard Specification for Audiometers, S3.6-1996. Test frequencies below 500 Hz and above 6000 Hz may be omitted from the calibration
- Provide audiometric test rooms that meet the requirements of ANSI S3.1-1999 American National Standard Maximum Permissible Ambient Noise Levels for Audiometric Test Rooms using the following table of Maximum Ambient Sound Pressure Levels:

Note:

The **American Industrial Hygiene Association** and National Hearing Conservation Association recommend conducting audiograms using the requirements of ANSI S3.1-1999 American National Standard Maximum Permissible Ambient Noise Levels for Audiometric Test Rooms with adjustments at only 500 Hz and below.

## **296-307-70480**

### **Definitions.**

Published exposure level

Exposure limits published in "National Institute for Occupational Safety and Health (NIOSH) Recommendations for Occupational Safety and Health" (DHHS publication # 92-100, 1992).

If an exposure limit is not published by NIOSH, then "published exposure level" means the exposure limits published by the **American Conference of Governmental Industrial Hygienists (ACGIH)** in "TLVs and BEIs-Threshold Limit Values for Chemical Substances and Physical Agents" (1999 edition).

Note:

Additional exposure levels published by recognized organizations such as the **American Industrial Hygiene Association** are not required to be observed by this rule; however, they may be a useful resource when a hazardous substance is not covered by NIOSH and ACGIH publications.

# **WASHINGTON RULES/REGULATIONS**

**<http://apps.leg.wa.gov/WAC/default.aspx?dispo=true&cite=296-817&full=true>**

## **WASHINGTON ADMINISTRATIVE CODE**

### **CHAPTER 296-817 WAC** **HEARING LOSS PREVENTION (NOISE)**

#### **296-817-40035**

**Make sure audiometric testing equipment meets these requirements.**

You must:

- Use pure tone, air conduction, hearing threshold examinations, with test frequencies including as a minimum 500, 1000, 2000, 3000, 4000, and 6000 Hz
  - Tests at each frequency must be taken separately for each ear
  - Supra-aural headphones must be used.
- Conduct audiometric tests with audiometers (including microprocessor audiometers) that meet the specifications of, and are maintained and used according to, American National Standard Specification for Audiometers, S3.6-1996
- Check the functional operation of the audiometer each day before use by doing all of the following:
  - Make sure the audiometer's output is free from distorted or unwanted sound
  - Test either a person with known, stable hearing thresholds or a bio-acoustic simulator
  - Perform acoustic calibration for deviations of 10 dB or greater.
- Audiometer calibration must be checked acoustically at least annually to verify continued conformance with ANSI S3.6-1996. Test frequencies below 500 Hz and above 6000 Hz may be omitted from this check
- An exhaustive calibration must be performed at least every two years according to the American National Standard Specification for Audiometers, S3.6-1996. Test frequencies below 500 Hz and above 6000 Hz may be omitted from the calibration.
- Provide audiometric test rooms that meet the requirements of ANSI S3.1-1999 American National Standard Maximum Permissible Ambient Noise Levels for Audiometric Test Rooms using the following table of maximum ambient sound pressure levels:

Note:

The **American Industrial Hygiene Association** and National Hearing Conservation Association recommend conducting audiograms using the requirements of ANSI S3.1-1999 American National Standard Maximum Permissible Ambient Noise Levels for Audiometric Test Rooms with adjustments at only 500 Hz and below.

# **WASHINGTON RULES/REGULATIONS**

**<http://apps.leg.wa.gov/WAC/default.aspx?dispo=true&cite=296-824&full=true>**

## **WASHINGTON ADMINISTRATIVE CODE**

### **CHAPTER 296-824 WAC** **EMERGENCY RESPONSE**

#### **296-824-800**

##### **Definitions.**

Published exposure level

Exposure limits published in "National Institute for Occupational Safety and Health (NIOSH) Recommendations for Occupational Safety and Health" (DHHS publication # 92-100, 1992).

If an exposure limit is not published by NIOSH, then "published exposure level" means the exposure limits published by the **American Conference of Governmental Industrial Hygienists (ACGIH)** in "TLVs and BEIs-Threshold Limit Values for Chemical Substances and Physical Agents" (1999 edition).

Note:

Additional exposure levels published by recognized organizations such as the **American Industrial Hygiene Association** are not required to be observed by this rule; however, they may be a useful resource when a hazardous substance is not covered by NIOSH and ACGIH publications.

# WASHINGTON RULES/REGULATIONS

<http://apps.leg.wa.gov/wac/default.aspx?dispo=true&cite=296-304&full=true>

## WASHINGTON ADMINISTRATIVE CODE

### CHAPTER 296-304 WAC

### SAFETY STANDARDS FOR SHIP REPAIRING, SHIPBUILDING AND SHIPBREAKING

#### **296-304-01003**

##### **Reference specifications, standards, and codes.**

Specifications, standards, and codes of agencies of the U.S. government, to the extent specified in the text, form a part of these regulations. In addition, the specifications, standards, and codes of organizations which are not agencies of the U.S. government, in effect on the date of the promulgation of these regulations as listed below, to the extent specified in the text, form a part of these standards:

Threshold Limit Values, **American Conference of Governmental Industrial Hygienists**, 1014 Broadway, Cincinnati, Ohio 45202,

#### **296-304-01021**

##### **Competent person.**

(3) Criteria. The employer shall ensure that each designated competent person has the following skills and knowledge:

(a) Ability to understand and carry out written or oral information or instructions left by marine chemists, Coast Guard-authorized persons and **certified industrial hygienists**;

(f) Ability to inspect, test, and evaluate spaces to determine the need for further testing by a marine chemist or a **certified industrial hygienist**; and

(4) Recordkeeping.

(a) When tests and inspections are performed by a competent person, marine chemist, or **certified industrial hygienist** as required by any provisions of WAC 296-304-020 through 296-304-02011, WAC 296-304-030 through 296-304-03009, WAC 296-304-040 through 296-304-04013, or WAC 296-304-080 through 296-304-08011, the employer shall ensure that the person performing the test and inspection records the location, time, date, location of inspected spaces, and the operations performed, as well as the test results and any instructions.

**296-304-020**

**Confined and enclosed spaces and other dangerous atmospheres in shipyard employment.**

**Certified industrial hygienist (CIH)** means an **industrial hygienist who is certified** by the **American Board of Industrial Hygiene**.

Enter with restrictions denotes a space where entry for work is permitted only if engineering controls, personal protective equipment, clothing, and time limitations are as specified by the marine chemist, **certified industrial hygienist**, or the shipyard competent person.

Safe for workers denotes a space that meets the following criteria:

- (a) The oxygen content of the atmosphere is at least 19.5 percent and below 22.0 percent by volume;
- (b) The concentration of flammable vapors is below 10 percent of the lower explosive limit (LEL);
- (c) Any toxic materials in the atmosphere associated with cargo, fuel, tank coatings, or inerting media are within permissible concentrations at the time of the inspection; and
- (d) Any residues or materials associated with the work authorized by the marine chemist, **certified industrial hygienist**, or competent person will not produce uncontrolled release of toxic materials under existing atmospheric conditions while maintained as directed.



# WASHINGTON RULES/REGULATIONS

<http://apps.leg.wa.gov/wac/default.aspx?dispo=true&cite=296-17A&full=true>

## WASHINGTON ADMINISTRATIVE CODE

### CHAPTER 296-17A WAC CLASSIFICATIONS FOR WASHINGTON WORKERS' COMPENSATION INSURANCE

#### **296-17A-1007**

##### **Classification 1007.**

1007-21 Environmental and ecological surveyor services, N.O.C.

Applies to establishments engaged in providing environmental and ecological surveying services not covered by another classification (N.O.C.) for others. Environmental or ecological surveying firms typically serve as consultants to industrial or commercial enterprises, governmental agencies or private citizens. Environmental engineer is a term applied to engineering personnel who apply knowledge of chemical, civil, mechanical, or other engineering disciplines to preserve the quality of life by correcting and improving various areas of environmental concern, such as air, soil, or water pollution. Services include identifying and projecting potential environmental impact resulting from proposed projects, assessing the source, severity and extent of environmental damage resulting from human or natural causes, and recommending solutions to protect or regain the natural balance between organisms and their environment. Activities of environmental surveying/consulting establishments include, but are not limited to, locating archaeological sites for preservation, researching and collecting field data on birds and insects, preparing impact statement for landowners and developers, stream and fish monitoring, botanical surveys, wetland surveys, soil and groundwater testing for contamination, air monitoring including **industrial hygiene** services, monitoring and testing at hazardous waste sites, providing advice on pollution control at its source, and developing a plan for cleaning up already recognized problems such as waste disposal sites, radon or asbestos contamination. Other services provided may include helping clients develop a system for complying with various governmental regulations. This classification includes employees of the environmental surveying service who conduct field work as well as those who are assigned to act as project managers or project superintendents to oversee the work of remediation contractors.

# WASHINGTON RULES/REGULATIONS

<http://apps.leg.wa.gov/wac/default.aspx?cite=296-856&full=true>

## WASHINGTON ADMINISTRATIVE CODE

### CHAPTER 296-856 WAC FORMALDEHYDE

#### **296-856-30030**

##### **Medical removal.**

Medical evaluation process for removal of employees:

Step 1: Provide the employee with a medical evaluation by an LHCP selected by the employer.

Step 2: Based on information in the medical questionnaire the LHCP will determine if the employee will receive an examination as described in Table 3, Content of Medical Evaluations, in Medical and emergency evaluations, WAC 296-856-30020.

– If the LHCP determines that a medical examination is not necessary, there will be a two-week evaluation and correction period to determine whether the employee's signs and symptoms resolve without treatment, from the use of creams, gloves, first-aid treatment, personal protective equipment, or **industrial hygiene** measures that reduce exposure.

- If before the end of the two-week period the employee's signs or symptoms worsen, immediately refer them back to the LHCP.
- If signs and symptoms persist after the two-week period, the LHCP will administer a physical examination as outlined in Table 3, Content of Medical Evaluations, in Medical and emergency evaluations, WAC 296-856-30020.

Step 3: Promptly follow the LHCP's restrictions or recommendations. If the LHCP recommends removal from exposure, do either of the following:

# WASHINGTON RULES/REGULATIONS

<http://apps.leg.wa.gov/wac/default.aspx?dispo=true&cite=173-303&full=true>

## WASHINGTON ADMINISTRATIVE CODE

### CHAPTER 173-303 WAC DANGEROUS WASTE REGULATIONS

#### **173-303-700**

#### **Requirements for the Washington state extremely hazardous waste management facility at Hanford.**

(3) Other applicable requirements. The EHW facility at Hanford must meet all other requirements of chapter 173-303 WAC, including specific requirements for storage, treatment, transfer and disposal of EHW, and siting, performance, and operation of facilities. The EHW facility must also meet the following requirements:

(a) The state operator must not remove any dangerous waste from the facility without the department's approval;

(b) The state operator must maintain facilities for telephone and radio contact with the Hanford Reservation security patrol, and include this information with the contingency plan required in WAC 173-303-350;

(c) As a minimum, the state operator must provide personnel having knowledge and background in the following areas:

(i) Inspecting and checking manifests for completeness and accuracy;

(ii) Applied chemistry as it relates to reactivity, explosiveness, and flammability; and

(iii) **Industrial hygiene** and/or toxicology of industrial, commercial, and agricultural chemicals, and emergency procedures;

(d) The state operator must ensure that new personnel have a complete physical examination and annual checkups thereafter. The physician should be alerted to the kinds of materials the employee has been handling, so that more specific analyses can be made. The medical records must be made a part of the state operator's records as required in WAC 173-303-380(1); and

(e) The state operator must submit copies of all fee schedules to the department for yearly review and approval. The state operator must supply, and the department will use, the following criteria to review such disposal fees:

(i) Their relationship to other fees charged for similar services;

(ii) Reasonable return on investment and profit for the operator; and

(iii) The cost of administration, development, operation, maintenance, and perpetual management of the EHW facility, including administrative costs and perpetual management costs of the department.

# **WASHINGTON RULES/REGULATIONS**

**<http://apps.leg.wa.gov/wac/default.aspx?cite=296-802&full=true>**

## **WASHINGTON ADMINISTRATIVE CODE**

### **CHAPTER 296-802 WAC**

#### **EMPLOYEE MEDICAL AND EXPOSURE RECORDS**

##### **296-802-50010**

##### **Content of WISHA written access orders.**

A written access order from WISHA will contain at least the following information:

- The identity of employees whose medical information is being requested.
  - This may be either by name, job classification, time clock number, department, or similar identifier.
- A description of the medical information that will be examined.
- The purpose for seeking access to this medical information.
  - Any additional evidence supporting access to the medical information.
- A step-by-step description of how the records will be obtained, copied, reviewed, and stored, specifying the following:
  - Who will be in charge of on-site review of the records, or who will take possession of the records for offsite review.
  - Where the records will be reviewed.
  - When review or receipt of the records is to take place.
  - If the records are to be reviewed on-site, what type of information will be copied and removed offsite.
- How personal identifiers will be separated from the medical information and how long this information will be kept.
- The principal WISHA investigator's full name, business address and telephone number.
- The full names and titles of all individuals that will review the records.
- The WISHA **industrial hygiene** program manager's full name, business address and telephone number.

##### **296-802-900**

##### **Definitions.**

Health professional

A physician, occupational health nurse, **industrial hygienist**, toxicologist, or epidemiologist, who provides medical or other occupational health services to exposed employees.

# **WASHINGTON RULES/REGULATIONS**

**<http://apps.leg.wa.gov/wac/default.aspx?cite=173-306&full=true>**

## **WASHINGTON ADMINISTRATIVE CODE**

### **CHAPTER 173-306 WAC**

### **SPECIAL INCINERATOR ASH MANAGEMENT STANDARDS**

#### **173-306-200**

##### **Generator management plans.**

(3) Generator management plan requirements. Before managing special incinerator ash, all applicable generators shall develop generator management plans. Generator management plans shall show how the following requirements are met:

(i) Establish procedures acceptable to the department for tracking movements of special incinerator ash from the point of generation and/or handling to the site of final deposit or disposal. The tracking method may include inventory control and tracking systems, scale, ticket, and receipt tracking, gate logs, operating logs, or material balances;

(ii) File a report with the department if the owner or operator has not confirmed that an ash waste has been received at the intended destination within forty-five days of the date the waste was accepted by the transporter. The report must include:

(A) A legible copy of the shipping paper or manifest for which the owner or operator does not have confirmation of delivery; and

(B) A cover letter signed by the generator or his representative explaining the efforts taken to locate the waste and the results of these efforts.

(g) Other state and local requirements. All generators shall comply with all federal, state, and local environmental and **industrial hygiene** right-to-know laws and rules, including chapter 197-11 WAC, the State Environmental Policy Act rules; chapter 173-304 WAC, the Minimum functional standards for solid waste handling; and chapter 173-434 WAC, the air emission rules for incinerators.

# **WASHINGTON RULES/REGULATIONS**

**<http://apps.leg.wa.gov/wac/default.aspx?dispo=true&cite=296-155&full=true>**

## **WASHINGTON ADMINISTRATIVE CODE**

### **CHAPTER 296-155 WAC** **SAFETY STANDARDS FOR CONSTRUCTION WORK**

#### **296-155-160**

##### **Gases, vapors, fumes, dusts, and mists.**

(1) Exposure of employees to inhalation, ingestion, skin absorption, or contact with any material or substance at a concentration above those specified in chapter 296-841 WAC shall be avoided.

(2) To achieve compliance with subsection (1) of this section, administrative or engineering controls must first be implemented whenever feasible. When such controls are not feasible to achieve full compliance, protective equipment or other protective measures shall be used to keep the exposure of employees to air contaminants within the limits prescribed in WAC 296-62-07515 [ 296-841-20025]. Any equipment and technical measures used for this purpose must first be approved for each particular use by a competent **industrial hygienist** or other technically qualified person. Whenever respirators are used, their use shall comply with WAC 296-155-220.

(3) Whenever internal combustion equipment exhausts in enclosed spaces, tests shall be made and recorded to ensure that employees are not exposed to unsafe concentrations of toxic gases or oxygen deficient atmospheres. See chapter 296-62 WAC, the general occupational health standards and chapter 296-841 WAC, identifying and controlling respiratory hazards.

(4) Whenever any employee is exposed to asbestos, the provisions of the general occupational health standards, chapter 296-62 WAC shall apply.

(5) Subsections (1) and (2) of this section do not apply to the exposure of employees to formaldehyde. Whenever any employee is exposed to formaldehyde, the requirements of chapter 296-856 WAC shall apply.

#### **296-155-17347**

##### **Appendix D to WAC 296-155-173—Sampling and analytical methods for MDA monitoring and measurement procedures.**

Interferences (analytical):

Any compound that gives an electron capture detector response and has the same general retention time as the HFAA derivative of MDA is a potential interference. Suspected interferences reported to the laboratory with submitted samples by the **industrial hygienist** must be considered before samples are derivatized. GC parameters may be changed to possibly circumvent interferences. Retention time on a single column is not

considered proof of chemical identity. Analyte identity should be confirmed by GC/MS if possible.

# WASHINGTON RULES/REGULATIONS

<http://apps.leg.wa.gov/wac/default.aspx?dispo=true&cite=296-56&full=true>

## WASHINGTON ADMINISTRATIVE CODE

### CHAPTER 296-56 WAC

### SAFETY STANDARDS – LONGSHORE, STEVEDORE AND WATERFRONT RELATED OPERATIONS

#### **296-56-60077**

#### **Powered industrial trucks.**

(6) Vehicle equipment and maintenance.

(a) Horns and lights. All power-propelled vehicles shall be provided with horns or other warning devices.

(b) Power-propelled vehicles used for night work, when required to travel away from an illuminated work area shall be equipped with a light or lights directed in the direction of travel in order to safely travel about the area.

(c) Guards on operator's platform. Every power truck operated from an end platform or standing position shall be equipped with a substantial guard securely attached to the platform or frame of the vehicle in such a manner as to protect the operator from falling objects and so designed that the operator can easily mount or dismount from the operating station.

(d) Seat cushions. All vehicles having a driver's seat shall be provided with resilient seat cushions fixed in place.

(e) Securing of counterbalances. Counterbalances of all power-driven vehicles shall be positively secured to prevent accidental dislodging, but may be a removable type which may be removed, if desired, prior to hoisting the vehicle.

(f) Exhaust pipes and mufflers. Exhaust pipes and mufflers of internal combustion engines, where workers are exposed to contact shall be isolated or insulated. Exhaust pipes shall be constructed to discharge not less than seventy-two inches above the floor on jitneys and eighty-four inches on forklifts or less than twenty inches from the floor.

(g) Ventilation where internal combustion vehicles are used. Internal combustion engines may be used only in areas where adequate ventilation is provided.

(h) Concentration levels of carbon monoxide gas created by powered industrial truck operations shall not exceed the levels specified in WAC 296-56-60055.

(i) When disputes arise concerning degree of concentration, methods of sampling to ascertain the conditions should be referred to a qualified **industrial hygienist**.

(j) Cargo truck couplings. Couplings installed on cargo trucks (four-wheelers) shall be of a type which will prevent accidental disengaging.



# **WASHINGTON RULES/REGULATIONS**

**<http://apps.leg.wa.gov/wac/default.aspx?cite=296-901&full=true>**

## **WASHINGTON ADMINISTRATIVE CODE**

### **CHAPTER 296-901 WAC** **GOBALLY HARMONIZED SYSTEM FOR HAZARD** **COMMUNICATION**

**296-901-14008**

#### **Hazard classification.**

(5) The chemical manufacturer, importer or employer must determine the hazards of mixtures of chemicals as follows:

(a) If a mixture has been tested as a whole to determine its hazards, the results of such testing must be used to determine whether the mixture is hazardous;

(b) If a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture must be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture must be assumed to present a carcinogenic hazard if it contains a component in concentrations of 0.1 percent or greater which is considered to be a carcinogen under subsection (4) of this section;

(c) If a mixture has not been tested as a whole to determine whether the mixture is a physical hazard, the chemical manufacturer, importer, or employer may use whatever scientifically valid data is available to evaluate the physical hazard potential of the mixture; and

(d) If the chemical manufacturer, importer, or employer has evidence to indicate that a component present in the mixture in concentrations of less than one percent (or in the case of carcinogens, less than 0.1 percent) could be released in concentrations which would exceed an established OSHA permissible exposure limit or **American Conference of Industrial Hygienists (ACGIH)** Threshold Limit Value, or could present a health risk to employees in those concentrations, the mixture must be assumed to present the same hazard.

# **WASHINGTON RULES/REGULATIONS**

**<http://apps.leg.wa.gov/wac/default.aspx?cite=296-816&full=true>**

## **WASHINGTON ADMINISTRATIVE CODE**

### **CHAPTER 296-816 WAC** **PROTECTING TRADE SECRETS**

**296-816-300**

#### **Definitions.**

Health professional:

A physician, occupational health nurse, **industrial hygienist**, toxicologist, or epidemiologist, providing medical or other occupational health services to exposed employees.