

**Chapter 296-71 WAC**  
**REFINERY WORKER TRAINING AND CERTIFICATION IN HIGH HAZARD FACILITIES**

Last Update: 6/4/24

**WAC**

296-71-001	Purpose and scope.
296-71-003	Definitions.
296-71-010	Skilled and trained workforce requirements.
296-71-020	Training certification.
296-71-030	Training course approval.
296-71-040	Reciprocity.
296-71-050	Denial, suspension, and revocation.
296-71-060	Appendix A: Training course content—Nonmandatory.

**WAC 296-71-001 Purpose and scope.** This standard contains requirements under chapter 49.80 RCW for:

(1) Owners and operators of petroleum refining or petrochemical manufacturing facilities to use a skilled and trained workforce when contracting for construction, alteration, demolition, installation, repair or maintenance work at the stationary source.

(2) Training and certification of the skilled and trained workforce, including training course approval, and the issuance of worker certification.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 49.80.060, and chapter 49.80 RCW. WSR 22-19-101, § 296-71-001, filed 9/21/22, effective 10/22/22.]

**WAC 296-71-003 Definitions.** Unless the context clearly requires otherwise, the definitions in this section apply throughout this chapter.

**Apprenticeable occupation.** An occupation for which an apprenticeship program has been approved by the Washington state apprenticeship and training council pursuant to chapter 49.04 RCW.

**Approved.** Approved by the department.

**Competent instructor.** An instructor who has demonstrated satisfactory performance in the occupation for a minimum of three years beyond the customary learning period for that occupation and who:

(a) Meets the requirements of the state board for community and technical colleges for a vocational-technical instructor; or

(b) Is recognized within an industry as having expertise in a specific occupation and is a subject matter expert; and

(c) Has training in teaching techniques and adult learning styles. The training may be acquired before, or within one year after, the competent instructor begins to provide related supplemental instruction.

**Department.** The department of labor and industries.

**Director.** The director of the department of labor and industries or the director's designee.

**High hazard facility.** A stationary source that is engaged in activities described in code 324110 or 325110 of the North American Industry Classification System (NAICS).

**On-site work.** Does not include ship and rail car support activities; environmental inspection and testing; security guard services; work which is performed by an original equipment manufacturer for warranty, repair, or maintenance on the vendor's equipment if required by the original equipment manufacturer's warranty agreement between the original equipment manufacturer and the owner; industrial cleaning not

related to construction; safety services requiring professional safety certification; nonconstruction catalyst loading, regeneration, and removal; chemical purging and cleaning; refinery by-product separation and recovery; inspection services not related to construction; and work performed that is not in an apprenticeable occupation.

**Owner/operator.** The owner or operator of a stationary source that is engaged in activities described in code 324110 or 325110 of the North American Industry Classification System (NAICS).

**Person.** One or more individuals, partnerships, associations, corporations, business trusts, legal representatives, or any organized group of persons.

**Registered apprentice.** An apprentice registered in an apprenticeship program approved by the Washington state apprenticeship and training council according to chapter 49.04 RCW.

**Revocation.** A withdrawal of a certification issued by the department or by department approval.

**Skilled journeyman.** The worker either graduated from an apprenticeship program for the applicable occupation that was approved by the Washington state apprenticeship and training council according to chapter 49.04 RCW, or has at least as many hours of on-the-job experience in the applicable occupation that would be required to graduate from an apprenticeship program approved by the Washington state apprenticeship and training council according to chapter 49.04 RCW, and who is paid a wage meeting the requirements of chapter 49.80 RCW.

**Skilled and trained workforce.** A workforce that meets both of the following criteria:

(a) All the workers are either registered apprentices or skilled journeymen; and

(b) The workforce meets the approved advanced safety training requirements established in this chapter, and the apprenticeship graduation established in RCW 49.80.030.

**Suspension.** A temporary withdrawal of department course approval. No suspension may be less than six months or longer than one year.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 49.80.060, and chapter 49.80 RCW. WSR 22-19-101, § 296-71-003, filed 9/21/22, effective 10/22/22.]

**WAC 296-71-010 Skilled and trained workforce requirements.** (1) Owners and operators, when contracting for the performance of construction, alteration, demolition, installation, repair or maintenance work at the stationary source, must require that its contractors and any subcontractors use a skilled and trained workforce to perform all on-site work within an apprenticeable occupation in the building and construction trades, and that work is done within the worker's specific occupation or craft. This includes:

(a) The percentages of skilled journeymen who are graduates of an apprenticeship program for the applicable occupation approved by the Washington state apprenticeship and training council under chapter 49.04 RCW meet the requirements under RCW 49.80.030;

(b) Six months after the effective date of this chapter, all workers in the skilled and trained workforce must have completed at least 20 hours of approved advanced safety training for workers at high hazard facilities within the past three calendar years.

(c) The skilled and trained workforce requirements under this section apply to each individual contractor's and subcontractor's on-site workforce.

(2) The owner/operator must have documentation showing that the skilled and trained workforce requirements are met. This documentation must be provided to the department upon request.

(3) This section does not apply to:

(a) The employees of the owner or operator of the stationary source;

(b) A contractor who has requested qualified workers from the local hiring halls or apprenticeship programs that dispatch workers in the apprenticeable occupation and who, due to workforce shortages, is unable to obtain sufficient qualified workers within two working days of the request; and

(c) Emergencies that make compliance impracticable because they require immediate action to prevent harm to public health, safety, or the environment. This section applies as soon as the emergency is over, or it becomes practicable for contractors to obtain a qualified workforce.

Note: This section does not prevent the owner or operator of the stationary source from using its own employees to perform any work that has not been assigned to contractors while the employees of the contractor are present and working.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 49.80.060, and chapter 49.80 RCW. WSR 22-19-101, § 296-71-010, filed 9/21/22, effective 10/22/22.]

**WAC 296-71-020 Training certification.** (1) To qualify for an advanced safety training certificate, workers must:

(a) Attend and successfully complete an approved 20-hour advanced safety training course for workers at high hazard facilities.

(b) Complete an application through an approved training course sponsor.

(2) Workers must do the following to renew and continue certification prior to the certificate expiration date:

(a) Attend and successfully complete an approved 20-hour advanced safety training course for workers at high hazard facilities.

(b) Complete an application through an approved training course sponsor.

(3) Upon receipt of the verification of completion of approved training, and the completed application, the department will issue a certificate to the worker which will include:

(a) The name of the person awarded the certificate;

(b) Certificate number;

(c) Expiration date; and

(d) A statement that the person receiving the certificate has completed the 20-hour high hazard facilities training.

(4) Certificates will be issued and mailed to the individual applicants and will be valid for three years from the date of course completion.

(5) The department may suspend or revoke a certificate as provided in WAC 296-71-050.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 49.80.060, and chapter 49.80 RCW. WSR 22-19-101, § 296-71-020, filed 9/21/22, effective 10/22/22.]

**WAC 296-71-030 Training course approval.** (1) High hazard facilities 20-hour training courses may be sponsored by any person, or other entity having department approval. An approved course must include 20 hours of in-person and laboratory instruction, and meet the minimum required elements for approved course in WAC 296-71-060, Appendix A, including topics and hours.

(2) Prior to receiving department approval, each course must be evaluated by the department for the breadth of knowledge and experience required to properly train workers. Course content must be carefully scrutinized for adequacy and accuracy. Training techniques will be evaluated by the department.

(3) Sponsors of training courses proposed for approval must submit:

(a) Background information about course sponsors;

(b) Course locations;

(c) Course fees;

(d) Copies of course handouts;

(e) A detailed description of course content and the amount of time allotted to each major topic. See WAC 296-71-060, Appendix A for a list of required training topics that must be included;

(f) A description of teaching methods to be utilized and a list of all audio-visual materials; the department may, in its discretion, request that copies of the materials be provided for review;

(g) A list of all personnel involved in course preparation and presentation and a description of the background, special training and qualifications of each. Training must be taught by competent instructors. The department may, in its discretion, require proposed instructors to pass an examination on subjects related to their respective topics of instruction;

(h) A description of student evaluation methods;

(i) A description of course evaluation methods;

(j) Any restrictions on attendance (language, class size, affiliation, etc.);

(k) A list of any other states that currently approve the training course; and

(l) The amount and type of hands-on training.

(4) Materials may be submitted electronically through the online portal or mailed to:

High Hazard Facilities Program  
Department of Labor & Industries  
P.O. Box 44615  
Olympia, WA 98504-4615

(5) For timely approval, the initial application for training course approval and course materials must be submitted to the department at least 60 days prior to the requested approval date.

(6) The decision to grant or renew approval of a training course is the sole discretion of the department.

(a) Following approval of a training course, the department will issue the course sponsor an approval that is valid for three years from the date of issuance.

(b) Application for renewal must follow the procedures described in subsections (3) and (4) of this section.

(7) In recognition that the industry is evolving, the department reserves the right to require additional subjects to be taught and to specify the amount of time which must be allotted to adequately cover required subjects. To ensure adequate coverage of required material,

each course sponsor must be provided and required to incorporate into their training course, a detailed outline of subject matter developed by the department.

(8) For timely approval, the training course approval renewal must be received by the department no later than 30 days before the approval expiration date.

(9) Any changes to a training course must be approved by the department in advance.

(10) The course sponsor must provide the department with a roster of all persons who have completed the training course. The list must be provided no later than 10 days after course completion and must include the:

- (a) Training course provider name;
- (b) Instructor name(s);
- (c) Course name;
- (d) Dates of class;
- (e) Location of class;
- (f) Student's name;
- (g) Student's mailing address; and
- (h) Certificate number (if applicable).

(11) The course sponsor must notify the department, in writing, at least 14 days before a training class is scheduled to begin. The notification must include the date, time, instructor, and address where the training will be conducted.

(12) A representative of the department may, at the department's discretion, attend a training course as an observer to verify that the training course is conducted in accordance with the program approved by the department.

(a) Course sponsors conducting training outside the state of Washington must reimburse the department for reasonable travel expenses associated with department audits of the training courses.

(b) Reasonable travel expenses are defined as current state of Washington per diem and travel allowance rates including airfare and/or surface transportation rates. Such reimbursement must be paid within 30 days of receipt of the billing notice.

(13) The training course sponsor must limit each class to a maximum of 50 participants.

(14) There must be at least one instructor for every 25 students.

(15) Denial, suspension, or revocation of approval will be done in accordance with WAC 296-71-050.

(16) Recordkeeping requirements for training providers: All approved providers of accredited training courses must comply with the following minimum recordkeeping requirements:

(a) Training course materials. A training provider must retain copies of all instructional materials used in delivery of the classroom training such as student manuals, instructor notebooks and handouts.

(b) Instructor qualifications. A training provider must retain copies of all instructors' resumes, and the documents approving each instructor issued by the department. Instructors must be approved by the department before teaching courses for accreditation purposes. A training provider must notify the department in advance whenever it changes course instructors. Records must accurately identify the instructors that taught each particular class for each date that a course is offered.

(c) Training records. The training providers must maintain records that document the names of all persons who have completed train-

ing, the disciplines for which training was provided, training dates and training locations.

(d) Record retention and access. The training provider must maintain the records in a manner that allows verification of the required information via telephone, or other communication.

(i) The training provider must maintain all required training course materials for a minimum of the duration of the course offering plus four years.

(ii) The training provider must maintain all required instructor qualification records for the duration of the instructor's employment plus four years.

(iii) The training provider must maintain all required training records for a minimum of four years. The training provider may find it advantageous to retain these records for a longer period.

(iv) The training provider must allow reasonable access to all of the records which may be required by the department for the approval of training providers or the accreditation of training courses, to the department, on request.

(v) If a training provider ceases to conduct training, the training provider must notify the department and give it the opportunity to take possession of that provider's training records.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 24-12-069, § 296-71-030, filed 6/4/24, effective 7/5/24. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 49.80.060, and chapter 49.80 RCW. WSR 22-19-101, § 296-71-030, filed 9/21/22, effective 10/22/22.]

**WAC 296-71-040 Reciprocity.** (1) The department may recognize 20-hour high hazard facilities training certifications issued by another state provided that:

(a) The worker is in possession of a currently valid certification from the other state;

(b) The training was completed within the past three years; and

(c) The department evaluates the other state's qualification procedures and determines the certification to be equivalent to the minimum requirements of this chapter.

(2) The department will maintain a list of states with recognized 20-hour high hazard facilities training certifications accessible from the department's website.

(3) When the department's evaluation of another state's training and certification procedures identifies deficiencies, the department will require the worker to complete the Washington 20-hour high hazard facilities training before issuing a Washington state certification.

Note: Reciprocity in this section applies only to the 20-hour high hazard facilities training requirement. It does not apply to apprenticeship requirements.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 49.80.060, and chapter 49.80 RCW. WSR 22-19-101, § 296-71-040, filed 9/21/22, effective 10/22/22.]

**WAC 296-71-050 Denial, suspension, and revocation.** (1) The department may deny, suspend, or revoke a course approval if the course sponsor does not comply with the training standards and accreditation requirements of this chapter.

(2) The department may suspend or revoke the training course approval, if in the department's judgment the sponsor does not maintain the course content and quality as initially approved, or make changes to a course as required by WAC 296-71-030(7). The criteria for suspension or revocation of training course approval includes, but is not limited to, at least one of the following:

- (a) Misrepresentation of the extent of training course approval;
- (b) Failure to submit required information or notification in a timely manner;
- (c) Failure to maintain requisite records;
- (d) Falsification of accreditation records, instructor qualifications, or other accreditation information; or
- (e) Failure to adhere to the training standards and accreditation requirements of this chapter.

(3) The department may deny, suspend, or revoke any certificate issued under this chapter if the certificate was obtained through error or fraud.

(4) The criteria for denying, suspending, or revoking a certificate for workers must include at least one of the following:

- (a) Obtaining certification from a training provider that does not have approval to offer training;
- (b) Obtaining certification through fraudulent representation of training documents;
- (c) Obtaining training documentation through fraudulent means.

(5) Before any course approval or certificate may be denied, suspended, or revoked, the holder thereof must be given written notice of the department's intention to do so, mailed by registered mail, return receipt requested, to the holder's last known address.

(6) A denial, suspension, or revocation order may be appealed in accordance with RCW 49.17.140. Any party aggrieved by an order of the board of industrial insurance appeals may obtain superior court review in the manner provided in RCW 49.17.150.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 24-12-069, § 296-71-050, filed 6/4/24, effective 7/5/24. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 49.80.060, and chapter 49.80 RCW. WSR 22-19-101, § 296-71-050, filed 9/21/22, effective 10/22/22.]

**WAC 296-71-060 Appendix A: Training course content—Nonmandatory.**

<b>Fundamentals of Petroleum Refining (4-hours)</b>	
Fundamentals of petroleum refining will explore the critical role refining plays in unleashing the potential of a barrel of crude oil and turning it into the specially formulated products that we rely on every day. These products include gasoline, agricultural chemicals, heating oil, plastics, and even prescription medicines. The training will also cover basic refining streams and unit configurations. Also covered will be hazards inherent to high hazard facilities and common emergency response processes. A section of the training will explain refining culture as it may differ from other industry sectors. An introduction to common refining terminology will be covered.	

<p>A major objective of this course is to address:</p> <ul style="list-style-type: none"> <li>• <b>Fundamentals of the petroleum refining industry</b></li> <li>• <b>Crude oil and its properties</b></li> <li>• <b>Classes of refinery processes and refinery configurations</b></li> <li>• <b>Properties of the refinery-produced streams</b></li> <li>• <b>Refinery hazards and emergency response procedures</b></li> </ul> <p>Suggested text and training material for instructors:  <i>Fundamentals of Petroleum Refining</i>, Authors: Mohamed A. Fahim, Taher A. Alsahhaf, Amal Sayed Elkilani</p>	
<p><b>Refining Industry Safety Concepts/Refinery Safety Overview (8-hours)</b>  This course addresses the basic safety principles associated with working in high hazard facilities. The program provides an awareness level orientation of the following elements:</p>	<p><b>Applicable WAC or Best Practices recommended as training resources</b></p>
<p>Overview/awareness of personal requirements for refineries</p>	<p>Transportation Worker Identification Credential  Drug Test  Respirator Fit Test  WAC 296-67-029 Contractors  WAC 296-67-025 Training  Refinery Site Specific Training</p>
<p>Hazard communication</p>	<p>Chapter 296-901 WAC</p>
<p>Emergency preparation and response</p>	<p>Chapter 296-824 WAC, Emergency response;  WAC 296-24-567, Employee emergency plans and fire prevention plans.</p>
<p>Exit routes and employee alarm systems</p>	<p>WAC 296-800-310</p>
<p>Fire brigades</p>	<p>Chapter 296-811 WAC  Understanding how refinery fire brigades work, including rescue operations, confined space entry protocols, fire suppression techniques, use of testing instruments, etc. May include facility-specific information.</p>
<p>Fire prevention and protection</p>	<p>WAC 296-24-567 (general industry);  WAC 296-155-250 (construction industry);  Basic overview on fire prevention, ignition sources, gas monitoring before hot work, etc. May include facility-specific information.</p>
<p>Toxicology</p>	<p>Asbestos awareness training  WAC 296-155-176, Lead in construction  Chapter 296-849 WAC, Benzene  Chapter 296-840 WAC, Respirable chrystalline silica  Best Practice Hydrogen Sulfide (H<sub>2</sub>S)  Best Practice Hydrofluoric Acid  Best Practice Asphyxiants  SDS's, CSB videos, department of labor &amp; industries training kits, etc., recommended as training resources.</p>
<p>Personal protective equipment (PPE) for refinery work</p>	<p>WAC 296-800-160 (general industry);  WAC 296-155-200 (construction industry);  Flame Resistant Clothing  Hard Hat  Eye Protection  Appropriate Footwear  Hearing Protection  Fall Protection  Personal Cleanliness  Protective Clothing  Contaminated Clothing</p>
<p>Respiratory protection</p>	<p>Chapter 296-842 WAC</p>
<p>Hearing conservation</p>	<p>Chapter 296-817 WAC</p>
<p>Energy control (lockout/tagout)</p>	<p>Chapter 296-803 WAC (general industry);  WAC 296-155-429 (construction industry).</p>
<p>Confined space</p>	<p>Chapter 296-809 WAC (general industry);  WAC 296-155-203 (construction industry).</p>



Heat related illness	WAC 296-62-095
Refinery safe work practices	Best practice - General safety in a refinery
Process safety management for refineries	Chapter 296-67 WAC
<b>Craft-Specific Safety Training (8-hours)</b>	<b>Applicable WAC or Best Practices recommended as training resources</b>
<p>Participants will learn the specific work performed by various trades working in the refinery. Working safely alongside other crafts and recognizing the similar and dissimilar risks associated with each craft is the focus of this course. Participants will also learn about interdependency and relationships between the crafts, stacked work, dissimilar trades working near each other, dissimilar risks associated with trade types (i.e., electrical energy, product energy, radiation, potential falling objects, etc.) job sequencing, and barricading.</p> <p>Craft specific safety training must cover individual craft hazards in a minimum of three categories:</p> <p>Hard trades: Boilermaker, pipefitting, welders, electricians, etc.</p> <p>Soft trades: Painting, scaffold building, insulation, carpentry, etc.</p> <p>Support crafts: Cranes, inspection, hydroblasting, vac trucks, safety attendant, etc.</p>	
<p><b>Hot work</b> Multiple trades are involved in hot work operations. Trades working in other operations on the location at the same time could be impacted from the hazards associated with hot work.</p>	<p>WAC 296-24-695 Fire prevention and protection (general industry); WAC 296-155-250 fire prevention and protection (construction industry); Understanding what hot work is and how to perform craft work safely; awareness of ignition sources such as welding, and performing dissimilar work around such areas; Hot work permits are specific to each facility and facility-specific information may be included in training.</p>
<p><b>Working at heights</b> The work of multiple trades may require working at heights and supporting working at heights. Trades working in areas where overhead work is occurring at the same time could be impacted from hazards such as falling objects.</p>	<p>Chapter 296-874 WAC, Scaffolds; Chapter 296-880 WAC, Unified safety standards for fall protection; Recognizing where overhead work is occurring; understanding any hazards associated with craft work in such areas.</p>
<p><b>Electrical</b></p>	<p>WAC 296-24-957 (general industry); WAC 296-155-426 (construction industry); Understanding electric shock and electrocution; Recognizing potential hazards around work involving electricity; Maintaining clearances around panels; Using proper protective devices; Eliminating access to exposed energized parts; How electricians work relates to other work performed in the refinery.</p>
<p><b>Pipefitting</b></p>	<p>Chapter 296-155 WAC: Part D Fire protection and prevention; Part F-1, rigging other than with the use of a crane (winch/tugger, chainfall, etc.); Part G Tools - Hand and power; Part H Welding and cutting; Part L, rigging and signaling with cranes; How pipefitters work relates to other work performed in the refinery.</p>
<p><b>Crane and material handling</b></p>	<p>Chapter 296-155 WAC: Part L, rigging and signaling with cranes; Part F-1, rigging other than with the use of a crane (winch/tugger, chainfall, etc.); Chapter 296-863 WAC, Forklifts and other powered industrial trucks; How equipment operating engineers work relates to other work performed in the refinery.</p>
<p><b>Finishing trades - Painters and drywall</b></p>	<p>Chapter 296-155 WAC How finishing trades work relates to other work performed in the refinery.</p>

<b>Cement masons</b>	Chapter 296-155 WAC How cement masons work relates to other work performed in the refinery.
<b>Construction laborers</b>	Chapter 296-155 WAC How construction laborers work relates to other work performed in the refinery.
<b>Carpenters scaffold erectors</b>	Chapter 296-874 WAC, Scaffold; Chapter 296-880 WAC, Unified safety standards for fall protection; How carpenter scaffold erectors work relates to other work performed in the refinery.
<b>Ironworkers, boilermakers, steelworkers</b>	Chapter 296-155 WAC How ironworkers, boilermakers, and steelworkers work relates to other work performed in the refinery.
<b>Asbestos workers</b>	Chapter 296-155 WAC; Chapter 296-65 WAC, Asbestos removal and encapsulation; How asbestos workers work relates to other work performed in the refinery.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 24-12-069, § 296-71-060, filed 6/4/24, effective 7/5/24.]