

**WSR 24-12-069**  
**PERMANENT RULES**  
**DEPARTMENT OF**  
**LABOR AND INDUSTRIES**

[Filed June 4, 2024, 10:10 a.m., effective July 5, 2024]

Effective Date of Rule: Thirty-one days after filing.

Purpose: The purpose of this expedited rule making was to create new WAC 296-71-060 Appendix A: Training course content—Nonmandatory. Appendix A was published in WSR 22-19-101 and located in WAC 296-71-050, making it hard to find for readers utilizing training course content. The department of labor and industries worked with stakeholders in November 2022 to make some clarifications to the appendix which helped assist training providers preparing curriculum and avoid unintended jurisdiction issues. This updated version will be located in the new WAC section. References to Appendix A in WAC 296-71-030 were also updated. Training courses currently approved were reviewed to the updated Appendix A and no change to existing courses is required based on this rule making.

Citation of Rules Affected by this Order: New WAC 296-71-060; and amending WAC 296-71-030 and 296-71-050.

Statutory Authority for Adoption: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060.

Adopted under notice filed as WSR 24-07-088 on March 19, 2024.

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0, Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Nongovernmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 1, Amended 2, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 0, Amended 0, Repealed 0.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: June 4, 2024.

Joel Sacks  
Director

**OTS-5208.1**

AMENDATORY SECTION (Amending WSR 22-19-101, 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 training, 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.

AMENDATORY SECTION (Amending WSR 22-19-101, 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.

**( ~~Appendix A: Training course content – Nonmandatory~~ )**

<b>Fundamentals of Petroleum Refining</b>	<b>4.0 Hours General Overview</b>	<b>Specific content</b>
Crude oil and its refining into downstream products	Basic high-level information about refineries	How crude oil is processed; relevant hazards as described on the safety data sheet for crude oil; fractions and their related hazards (temperatures, pressures, etc.); introduction to key refining processes; classes of refinery processes and refinery configurations; properties of the refinery-produced streams; and the interrelationship between processing units.
<b>Refining Industry Safety Concepts</b>	<b>8.0 Hours WAC Reference</b>	<b>Overview</b>
Exit routes and employee alarm systems	WAC 296-800-310	Details of emergency action plan concepts.
Process safety management for refineries	Chapter 296-67 WAC	Overview of the requirements for process safety management, including: Workplace assessments; stop work authority; job hazard analysis; contractor roles and responsibilities in a refinery facility; and other sections of the rule.
Emergency response	Chapter 296-824 WAC, Emergency response; WAC 296-24-567 Employee emergency plans and fire prevention plans	General overview of emergency operations in a refinery. May include facility-specific information.
Fire brigades	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.
Fire prevention and protection	WAC 296-24-567 (general industry); WAC 296-155-250 (construction industry)	Basic overview touching on fire prevention, ignition sources, testing before hot work, etc. May include facility-specific information.
Hazard communication	Chapter 296-901 WAC	Review of chemicals found in refineries and their locations, including general "streams"; personal protective equipment and practices; signs and symptoms of exposure; long-term health effects; and a comprehensive review of relevant safety data sheets.
Personal protective equipment (PPE) for refinery work	WAC 296-800-160 (general industry); WAC 296-155-200 (construction industry)	Fire resistant clothing; head protection; eye protection; foot protection; hearing protection; and contaminated clothing.
Respiratory protection	Chapter 296-842 WAC	The use of respirators in certain refinery locations. May include facility-specific information.
Hearing conservation	Chapter 296-817 WAC	Understanding the areas in a refinery facility where hearing protection is required. May include facility-specific information.
Lockout/tagout	Chapter 296-803 WAC (general industry); WAC 296-155-429 (construction industry)	Energy control protocols in a refinery. May include facility-specific information.
Confined spaces	Chapter 296-809 WAC (general industry) in addition to WAC 296-155-203 (construction industry)	Types of confined spaces in a refinery; entry protocols; atmospheric testing; other related hazards. May include facility-specific information and permit forms.

Heat-related illness	WAC 296-62-095	Maintain awareness of outdoor heat in the hot areas of a refinery, which may contribute to heat-related illness.
Refinery safe work practices	General safety in a refinery	Identify walking/working surface hazards; areas of nonentry; understanding general hazards of vessels and other equipment. May include facility-specific information.
<b>Craft-Specific Safety Training Including, but not limited to:</b>	<b>8.0 Hours WAC References</b>	<b>The purpose of this section is to have a discussion about specific interdependencies and relationships of trades, including stacked work; dissimilar trades in direct proximity with each other; dissimilar risks associated with various trades (i.e., radiation, potential falling objects, etc.); job sequencing; and barricading.</b>
Hot work	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.
Working at heights	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.
Electrical	WAC 296-24-957 (general industry); WAC 296-155-426 (construction industry)	Recognizing potential hazards about electrical work in a refinery and how to perform such work around other contract operations.
Pipefitting	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	Basic knowledge of pipe safety: Including eliminating risk of contamination in process lines through fit, purge, weld techniques and pre and post weld buffing and machining. Basic knowledge of testing lines e.g.: Nondestructive pipe testing techniques; safety regarding fuel and pressure pipes including design, construction, location, leak detection and environmental considerations; pressure vessel fabrication certification; welding qualifications; knowledge and application of relevant standards; pipe corrosion; pipe cracks; pipe modifications, e.g., removing; cutting into or destroying existing pipe lines and piping, installing new pipes, maintaining old pipes, etc.
Equipment operating engineers	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.)	Crane principles, rigging, signaling; forklift principles, etc.
Finishing trades	Chapter 296-155 WAC: Part F, general requirements for storage (Brick/block, handling cement/lime); Part G Tools—Hand and power; Part O Concrete, concrete forms, shoring, and masonry construction	Lead renovator, repair and painting program (RRP) Toxic Substance Control Act (TSCA) Section 402/chapter 365-230 WAC.

<p>Cement masons</p>	<p>Chapter 296-155 WAC: Part F, general requirements for storage (Brick/block, handling cement/lime); Part G Tools—Hand and power; Part O Concrete, concrete forms, shoring, and masonry construction</p>	<p>How cement masons work relates to other work performed in the refinery.</p>
<p>Ironworkers, boilermakers, and steelworkers</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; Part P Steel erection</p>	<p>How boilermakers', ironworkers', and steelworkers' work relates to other work performed in the refinery, including: Measuring, fabricating, cutting, welding and shaping steel parts such as girders, columns and frames; using equipment including shears, welding tools and torches; hoisting steel parts to their appropriate location; ensuring proper alignment and positioning and bolting them into place; assembly and use of equipment, including setting up cable and chain systems for hoisting or moving steel parts; disassembling it after completion of the task; following blueprint and instructions from supervisors to perform all tasks involved in assembly of steel structures; communicate with supervisors and coworkers to ensure smooth teamwork; notifying supervisors immediately of safety or structural concerns; taking apart structures or equipment in accordance with directions and standard operating procedures; repair steel components in older structures; directing crane operators as they move and position steel components; drilling holes and aligning parts with framework in preparation for riveting; use of tools including levels, laser tools and plumb bobs to ensure precise alignment.)</p>

NEW SECTION

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

<p><b>Fundamentals of Petroleum Refining (4-hours)</b></p>	
<p>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> <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>	

<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:	<b>Applicable WAC or Best Practices recommended as training resources</b>
Overview/awareness of personal requirements for refineries	Transportation Worker Identification Credential Drug Test Respirator Fit Test WAC 296-67-029 Contractors WAC 296-67-025 Training Refinery Site Specific Training
Hazard communication	Chapter 296-901 WAC
Emergency preparation and response	Chapter 296-824 WAC, Emergency response; WAC 296-24-567, Employee emergency plans and fire prevention plans.
Exit routes and employee alarm systems	WAC 296-800-310
Fire brigades	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.
Fire prevention and protection	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.
Toxicology	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 & industries training kits, etc., recommended as training resources.
Personal protective equipment (PPE) for refinery work	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
Respiratory protection	Chapter 296-842 WAC
Hearing conservation	Chapter 296-817 WAC
Energy control (lockout/tagout)	Chapter 296-803 WAC (general industry); WAC 296-155-429 (construction industry).
Confined space	Chapter 296-809 WAC (general industry); WAC 296-155-203 (construction industry).
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>
<p><b>Cement masons</b></p>	<p>Chapter 296-155 WAC How cement masons work relates to other work performed in the refinery.</p>
<p><b>Construction laborers</b></p>	<p>Chapter 296-155 WAC How construction laborers work relates to other work performed in the refinery.</p>

<p><b>Carpenters scaffold erectors</b></p>	<p>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.</p>
<p><b>Ironworkers, boilermakers, steelworkers</b></p>	<p>Chapter 296-155 WAC How ironworkers, boilermakers, and steelworkers work relates to other work performed in the refinery.</p>
<p><b>Asbestos workers</b></p>	<p>Chapter 296-155 WAC; Chapter 296-65 WAC, Asbestos removal and encapsulation; How asbestos workers work relates to other work performed in the refinery.</p>