

Department of Labor & Industries
Apprenticeship Section
PO Box 44530
Olympia WA 98504-4530



Teri Gardner 9-1-2020

REQUEST FOR APPROVAL OF PROPOSED STANDARDS

Eric Lawry
R6a rec'd 8.31.2020
L&I apprenticeship
coordinator

TO: Washington State Apprenticeship & Training Council

FROM Inland Northwest Chapter of Associated General Contractors Boilermaker Apprenticeship
Committee

NAME OF PROGRAM STANDARDS

Check appropriate box:

Committee Plant OJT

OCCUPATION(S):	HOURS:	SOC #:
Boilermaker (Field Construction and Repair)	6000	47-2011.00

Authorized Signatures:

Chair:

TH 9/31/20

Approved by:

Washington State Apprenticeship & Training Council

Secretary of Council

Secretary

Date:

9-27-20

Date:



APPRENTICESHIP PROGRAM STANDARDS
adopted by
INLAND NORTHWEST CHAPTER ASSOCIATED GENERAL CONTRACTORS
BOILERMAKER AC

(sponsor name)

Occupational Objective(s):

SOC#

Term [WAC 296-05-015]

BOILERMAKER

47-2011.00

6000 HOURS



APPROVED BY
Washington State Apprenticeship and Training Council
REGISTERED WITH
Apprenticeship Section of Fraud Prevention and Labor Standards
Washington State Department Labor and Industries
Post Office Box 44530
Olympia, Washington 98504-4530

APPROVAL:

Provisional Registration

Standards Last Amended

Permanent Registration

By: _____
Chair of Council

By: _____
Secretary of Council

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INTRODUCTION

This document is an apprenticeship program standard. Apprenticeship program standards govern how an apprenticeship works and have specific requirements. This document will explain the requirements.

The director of the Department of Labor and Industries (L&I) appoints the Washington State Apprenticeship and Training Council (WSATC) to regulate apprenticeship program standards. The director appoints and deputizes an assistant director to be known as the supervisor of apprenticeship who oversees administrative functions through the apprenticeship section at the department.

The WSATC is the sole regulatory body for apprenticeship standards in Washington. It approves, administers, and enforces apprenticeship standards, and recognizes apprentices when either registered with L&I's apprenticeship section, or under the terms and conditions of a reciprocal agreement. WSATC also must approve any changes to apprenticeship program standards.

Apprenticeship programs have sponsors. A sponsor operates an apprenticeship program and declares their purpose and policy herein to establish an organized system of registered apprenticeship education and training. The sponsor recognizes WSATC authority to regulate and will submit a revision request to the WSATC when making changes to an apprenticeship program standard.

Apprenticeships are governed by federal law (29 U.S.C 50), federal regulations (29 CFR Part 29 & 30), state law (49.04 RCW) and administrative rules (WAC 296-05). These standards conform to all of the above and are read together with federal and state laws and rules

Standards are changed with WSATC approval. Changes are binding on apprentices, sponsors, training agents, and anyone else working under an agreement governed by the standards. Sponsors may have to maintain additional information as supplemental to these standards. When a standard is changed, sponsors are required to notify apprentices and training agents. If changes in federal or state law make any part of these standards illegal, the remaining parts are still valid and remain in force. Only the part made illegal by changes in law is invalid. L&I and the WSATC may cooperate to make corrections to the standards if necessary to administer the standards.

Sections of these standards identified as bold "insert text" fields are specific to the individual program standards and may be modified by a sponsor submitting a revised standard for approval by the WSATC. All other sections of these standards are boilerplate and may only be modified by the WSATC. See WAC 296-05-003 for the definitions necessary for use with these standards.

Sponsor Introductory Statement (Required):

The following Apprenticeship Standards have been prepared by representatives of the Inland Northwest Chapter Associated General Contractors, Spokane, Washington, with

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the assistance of the Department of Labor and Industries. When approved by and registered with the Registration Agency, these standards shall govern the training of boilermaker apprentices in this industry.

I. GEOGRAPHIC AREA COVERED:

The sponsor must train inside the area covered by these standards. If the sponsor wants to train outside the area covered by these standards, the sponsor must enter a portability agreement with a sponsor outside the area, and provide evidence of such an agreement for compliance purposes. Portability agreements permit training agents to use apprentices outside the area covered by the standards. Portability agreements are governed by WAC 296-05-009.

The area covered by these Standards shall be the State of Washington.

For the purposes of these standards, Region I (Western Washington), Region II (Eastern Washington), Region III (Southwestern Washington), and Region IV (Central Washington) contain the following counties:

Region I: San Juan, Island, Kitsap, Whatcom, Skagit, Snohomish, King, Pierce, Lewis, Pacific, Thurston, Grays Harbor, Mason, Jefferson, and Clallam.

Region II: Ferry, Stevens, Pend Oreille, Lincoln, Spokane, Adams, Whitman, Franklin, Walla Walla, Columbia, Garfield, and Asotin.

Region III: Wahkiakum, Cowlitz, Skamania, Clark, and Klickitat

Region IV: Okanogan, Chelan, Douglas, Kittitas, Grant, Yakima, and Benton.

II. MINIMUM QUALIFICATIONS:

Minimum qualifications must be clearly stated and applied in a nondiscriminatory manner [WAC 296-05-015(17)].

Age: Must be at least eighteen (18) years of age. Applicants are required to submit reliable proof of age.

Education: Tenth grade education or equivalent

Physical: Must be able to meet the physical requirements of the trade with or without reasonable accommodation and without endangering the safety of him/herself and others on the worksite. A Job Analysis will be provided with the application outlining the physical requirements.

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Testing: **None**

Other:

- 1. All applicants must have a current valid driver license and dependable transportation to all assigned job sites.**
- 2. All applicants shall submit to the Apprenticeship Office and/or Committee representative a copy of their current valid driver license, I-9 Employment Verification Documents, and documentation/transcript validating 10th grade education or equivalent. Applicants not submitting all required documents and completing the application within sixty (60) days will be required to reapply.**
- 3. All applicants must be able to read, write and speak the English language as evidenced by receiving, completing, and returning a legible application to the sponsor.**

III. CONDUCT OF PROGRAM UNDER WASHINGTON EQUAL EMPLOYMENT OPPORTUNITY PLAN:

Sponsors with five (5) or more apprentices must adopt an Equal Employment Opportunity (EEO) Plan and Selection Procedure (chapter 296-05 WAC and 29 CFR Part 30).

The recruitment, selection, employment and training of apprentices during their apprenticeship shall be without discrimination because of race, sex (including pregnancy and gender identity), sexual orientation, color, religion, national origin, age, genetic information, disability or as otherwise specified by law. The sponsor shall take positive action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required by the rules of the Washington State Apprenticeship and Training Council and Title 29, Part 30 of the Code of Federal Regulations.

A. Selection Procedures:

- 1. Applications will be available on year around basis, to all interested individuals at Inland Northwest Chapter Associated General Contractors Boilermaker AC office at North 2110 Fancher, Spokane Valley, WA 99212, Monday through Thursday, 9:00 AM to 2:00 PM excluding Federal and State holidays. Applications are available on-line 24/7 at nwagcapprenticeship.org.**

For applicants residing in Regions I, III, and IV: Applications may be obtained by calling (509)534-0502 or on-line at nwagcapprenticeship.org. All applications submitted must have original signature of the applicant. Applications may be hand delivered, delivered via US Mail or other courier. The application must be sent to: Inland NW AGC Apprenticeship, PO Box

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11901, Spokane Valley, WA. 99211. Faxed and/or e-mailed applications will be accepted.

- 2. All applicants shall submit to the Apprenticeship Office and/or Committee representative, a copy of their current valid driver license and I-9 Employment Verification Documents, and a legibly completed signed and dated application form. Upon apprenticeship offices receipt of applicants completed application and documentation, the applicant will be eligible for an interview. As the industry has a need for registered individuals, eligible applicants will be notified via telephone and/or email and scheduled for an interview. Interviews will be held on an as needed basis. Interviews will be conducted either in-person at a mutually agreed upon location or via electronic transmission, Zoom, or telephone.**
- 3. Completed applications are valid and on file at the apprenticeship office until the applicant is interviewed.**
- 4. All applicants submitting a completed application shall be notified by letter of opportunity to be interviewed by the apprenticeship committee.**
- 5. All qualifying applicants shall be scored and ranked by the apprenticeship committee and/or committee representatives using an objective interview system. All applicants will be asked identical questions.**
- 6. The applicant will be graded in terms of overall judgment as to one likely to complete the apprenticeship program and become a successful journey level worker.**
- 7. After interviews, all qualified applicants shall be placed in the Ranked Eligibility Pool, subject to selection for a period of two years.**
- 8. Ranked qualified applicants will be offered employment based on order of their rank in eligibility pool.**
- 9. If the ranked qualified applicant fails to respond to an apprenticeship job assignment, the Training Director will notify the individual of their removal from the Ranked Eligibility Pool list.**
- 10. The Training Director is authorized to select a qualified ranked applicant from the Ranked Eligibility List to support Equal Opportunity Employment requirements and/or Apprentice Utilization Requirements.**
- 11. It shall be the responsibility of the applicant and/or qualified ranked applicant to notify the INWC AGC Boilermaker Apprenticeship Committee Training Director of any change of address and phone number for contact purposes.**

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- 12. INWC AGC Boilermaker Training Agents shall incorporate their conditions of employment with applicants.**
- 13. Applicants with previous experience or training in the trade may request to have previous hours accounted toward their apprenticeship certification. Each new individual case would come before the Apprenticeship Committee for review, and recommendation.**

EXCEPTIONS:

- 14. The Apprenticeship Committee has agreed to accept persons who've successfully completed approved preparatory training and such candidates may be direct entered into available apprenticeship openings without regard to eligibility lists.**
- 15. An employee of an employer not qualifying as a journey-level worker becomes a training agent, he/she shall be evaluated by the apprenticeship program using constant standard nondiscriminatory means and registered at the appropriate period of apprenticeship based on previous work experience and related training.**

B. Equal Employment Opportunity Plan:

Our positive outreach and recruitment activities are as follows:

- 1. Distribute information about the nature of apprenticeship programs, program admission requirements, current apprenticeship opportunities, sources of apprenticeship applications, and the equal opportunity policy of the sponsor. This information is distributed at least semiannually as the program accepts applications throughout the year.**

This information is given to the WSATC, local schools in eastern Washington, employment service offices, women's centers, outreach programs and community organizations which reach minorities and women. Information will also be published in newspapers which are circulated in the minority community and among women as well as the general areas in which the program sponsor operates.

- 2. Participate in workshops conducted by employment service agencies, school districts and community-based organizations to increase apprenticeship program awareness of apprenticeship opportunities.**
- 3. Work with local school districts, vocational education systems, and school employees to develop programs for preparing students to meet the standards and criteria required to qualify for entry into apprenticeship programs.**

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- 4. Participate in outreach programs whose focus is the recruitment and preparation of minority and female apprenticeship applicants.**
- 5. Granting to all applicants, without prejudice, advance standing or credit for previously acquired experience, training, skills, or aptitude.**

C. Discrimination Complaints:

Any apprentice or applicant for apprenticeship who believes they have been discriminated against may file a complaint with the supervisor of apprenticeship (WAC 296-05-443).

IV. TERM OF APPRENTICESHIP:

The term of apprenticeship for an individual apprentice may be measured through the completion of the industry standard for on-the-job learning (at least two thousand hours) (time-based approach), the attainment of competency (competency-based approach), or a blend of the time-based and competency-based approaches (hybrid approach) [WAC 296-05-015].

The term of apprenticeship shall be a minimum of 6,000 hours of reasonable continuous employment over a four-year period.

V. INITIAL PROBATIONARY PERIOD:

An initial probationary period applies to all apprentices, unless the apprentice has transferred from another program. During an initial probationary period, an apprentice can be discharged without appeal rights. An initial probationary period is stated in hours or competency steps of employment. The initial probationary period is not reduced by advanced credit or standing. During an initial probationary period, apprentices receive full credit for hours and competency steps toward completion of their apprenticeship. Transferred apprentices are not subject to additional initial probationary periods [WAC 296-05-003].

The initial probationary period is [WAC 296-05-015(22)]:

- A. the period following the apprentice's registration into the program. An initial probationary period must not be longer than twenty percent of the term of the entire apprenticeship, or longer than a year from the date the apprenticeship is registered. The WSATC can grant exemptions for longer initial probationary periods if required by law.
- B. the period in which the WSATC or the supervisor of apprenticeship may terminate an apprenticeship agreement at the written request by any affected party. The sponsor or the apprentice may terminate the agreement without a hearing or stated cause. An appeal process is not available to apprentices in their initial probationary period.

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All apprentices employed in accordance with these standards shall be subject to an initial probationary period not exceeding the first 1000 hours of actual employment as an apprentice.

VI. RATIO OF APPRENTICES TO JOURNEY LEVEL WORKERS

Supervision is the necessary education, assistance, and control provided by a journey-level employee on the same job site at least seventy-five percent of each working day, unless otherwise approved by the WSATC. Sponsors ensure apprentices are supervised by competent, qualified journey-level employees. Journey level-employees are responsible for the work apprentices perform, in order to promote the safety, health, and education of the apprentice.

- A. The journey-level employee must be of the same apprenticeable occupation as the apprentice they are supervising unless otherwise allowed by the Revised Code of Washington (RCW) or the Washington Administrative Code (WAC) and approved by the WSATC.
- B. The numeric ratio of apprentices to journey-level employees may not exceed one apprentice per journey-level worker [WAC 296-05-015(5)].
- C. Apprentices will work the same hours as journey-level workers, except when such hours may interfere with related/supplemental instruction.
- D. Any variance to the rules and/or policies stated in this section must be approved by the WSATC.
- E. The ratio must be described in a specific and clear manner, as to the application in terms of job site, work group, department or plant:

Each employer may employ one (1) apprentice per one (1) Journey-level boilermaker employed per job site.

VII. APPRENTICE WAGES AND WAGE PROGRESSION:

- A. Apprentices must be paid at least Washington's minimum wage, unless a local ordinance or a collective bargaining agreement require a higher wage. Apprentices must be paid according to a progressively increasing wage scale. The wage scale for apprentices is based on the specified journey-level wage for their occupation. Wage increases are based on hours worked or competencies attained. The sponsor determines wage increases. Sponsors must submit the journey-level wage at least annually or whenever changed to the department as an addendum to these standards. Journey-level wage reports may be submitted on a form provided by the department. Apprentices and others should contact the sponsor or the Department for the most recent Journey-level wage rate.

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- B. Sponsors can grant advanced standing, and grant a wage increase, when apprentices demonstrate abilities and mastery of their occupation. When advanced standing is granted, the sponsor notifies the employer/training agent of the wage increase the apprenticeship program standard requires.
- C. Wage Progression Schedules

Boilermaker

The Journey-Level Boilermaker wage rate will be the average Journey-Level Boilermaker wage rate for all the employers participating in the INW AGC Boilermaker apprenticeship program. Once each year, all participating employers will be surveyed for the average wage rate of their Journey-Level Boilermakers performing non-prevailing wage work. The wage rates will be averaged to determine the minimum Journey-Level Boilermaker wage rate for the INW AGC Boilermaker apprenticeship program. Employers reserve the right to pay apprentices more than the wage determined by this average wage, but they may not pay less.

Step	Hour Range or competency step	Percentage of journey-level wage rate*
1	0000 - 1000 hours OJT hours and 80 total hours of RSI	70%
2	1001 - 2000 hours OJT hours and 160 total hours of RSI	75%
3	2001 - 3000 hours OJT hours and 240 total hours of RSI	80%
4	3001 - 4000 hours OJT hours and 320 total hours of RSI	85%
5	4001 - 5000 hours OJT hours and 400 total hours of RSI	90%
6	5001 - 6000 hours OJT hours and 480 total hours of RSI	95%

Wage progression is dependent on the apprentice completing applicable required amount of OJT hours AND completing the required amount of RSI hours.

VIII. WORK PROCESSES:

The apprentice shall receive on the job instruction and work experience as is necessary to become a qualified journey-level worker versed in the theory and practice of the occupation covered by these standards. The following is a condensed schedule of work experience,

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which every apprentice shall follow as closely as conditions will permit. The following work process descriptions pertain to the occupation being defined.

The boilermaker apprentice shall receive instruction and experience in all branches of the boilermakers' trade, including the preparation of material for installation. The apprentice shall also perform such other duties in the shop and on-the-job as are commonly related to a Boilermaker apprenticeship.

- A. Boilermaker: Approximate Hours**
- 1. Care and Maintenance of Tools and equipment100**
 - a. Learning names of tools and equipment
 - b. Learning use of tools and equipment
 - c. Care and maintenance
 - d. Handing out tools and inventory

 - 2. Rigging and Bull Gang1000**
 - a. Unloading and Handling
 - b. Use of Hoisting Equipment
 - (1) Come-along
 - (2) Chain falls
 - (3) Erecting and dismantling derricks and cranes.
 - (4) Working with derrick and cranes
 - (5) Use of signals and safety
 - c. Use of Tackle
 - (1) Block and tackle
 - (2) Chokes, cables and slings
 - (3) Proper use of knots and splicing
 - (4) Proper use of clamps
 - (5) Safety
 - d. Moving Pieces
 - (1) Rollers
 - (2) Levers
 - (3) Use of tackle, come-alongs and chain-falls
 - (4) Safety

 - 3. General Erection1000**
 - a. Steel erection in Boilermaker Jurisdiction
 - (1) Designating location of members
 - (2) Raising in place
 - (3) Use of spud-wrench, bull, and drift pins, jacks, wedges, clips, and saddles
 - (4) Alignment:

- (a) Use of level, plumb, tape and ruler
 - (5) Connecting
 - (a) Drilling, reaming, chipping, caulking and grinding
 - (b) Bolting up
 - (c) Welding (tack)
 - (d) Riveting
 - b. Setting Drums and headers
 - (1) Use of hoisting equipment and tackle
 - (2) Use of water level, plumb and measuring devices
- 4. **Tube Installations.....400**
 - a. Entering
 - (1) Use of come-alongs and entering devices
 - (2) Lipping
 - b. Setting and Aligning
 - (1) Use of spacers
 - (2) Use of strong-backs
 - c. Getting proper stock
 - (1) Signals (sound and light)
 - (2) Come-along
 - (3) Piece of stock
 - (4) Boiler code
 - d. Rolling
 - (1) Use of erectors' guides, or
 - (2) Proper selection of the following:
 - (a) Expanders, rollers, pins and mandrels
 - (3) Use of rolling machines
 - (a) Pneumatic, electric and ratchet
 - (b) Lubricants
 - (4) Use of gauges and signals
 - (5) Heavy tube sheets
 - (6) Entering and connecting baffles
 - (7) Testing
 - (a) Visual
 - (b) Water (use of hydro-static pump)
 - (c) Air
 - (d) Use of gauges
- 5. **Use of Blue-print and lay-out500**
 - a. Use of prints to design-ate the following:
 - (1) Locating parts at unloading
 - (2) Moving parts to job location
 - (3) Parts to be hoisted into position

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- (4) Use of bench mark
 - (5) Symbols
 - b. **Layout**
 - (1) Use of precision measuring devices
 - (2) Marking for correcting, re-cutting and fitting
 - (3) Directing, cutting and fitting of parts
 - (4) Geometric measuring of parts, tube holes, etc.
 - (5) Working with foreman
6. **Welding and Burning3000**
- a. **Any and all forms of electric welding**
 - (1) Proper adjustment of machines
 - (2) Application and use of electrodes on all metals, ferrous and non-ferrous
 - (3) Metal spraying and hard facing
 - b. **Acetylene**
 - (1) Proper adjustment, gauges and torch
 - (2) Selection of tips
 - (3) Handling of torch and application
 - (a) Ferrous and non-ferrous
 - c. **Burning**
 - (1) Acetylene
 - (2) Arc (cutting and gouging)
 - (3) Machine methods
 - (4) Adjusting and operating of equipment
 - (a) Ferrous
 - (b) Non-ferrous

TOTAL HOURS: 6000

ALL OF THE FOREGOING WORK EXPERIENCE AS HEREIN NOTED IS UNDERSTOOD TO MEAN AS IT PERTAINS TO THE TRADE HEREIN INVOLVED IN THESE STANDARDS

IX. RELATED/SUPPLEMENTAL INSTRUCTION:

The apprentice must attend related/supplemental instruction (RSI). Time spent in RSI shall not be considered as hours of work and the apprentice is not required to be paid.

RSI must be provided in safe and healthy conditions as required by the Washington Industrial Safety and Health Act and applicable federal and state regulations.

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Hours spent in RSI are reported to L&I each quarter. Reports must show which hours are unpaid and supervised by a competent instructor versus all other hours (paid and/or unsupervised) for industrial insurance purposes.

For purposes of coverage under the Industrial Insurance Act, the WSATC is an employer and the apprentice is an employee when an unpaid, supervised apprentice is injured while under the direction of a competent instructor and participating in RSI activities.

If apprentices do not attend required RSI, they may be subject to disciplinary action by the sponsor.

A. The methods of related/supplemental training must be indicated below (check those that apply):

Supervised field trips

Sponsor approved training seminars (specify): **provided by vendors, manufacturers and other industry experts as available.**

Sponsor approved online or distance learning courses (specify): **Click Safety, NCCER Connect, Electude**

State Community/Technical college

Private Technical/Vocational college

Sponsor Provided (lab/classroom)

Other (specify): **Training Trust**

B. **(160)** Minimum RSI hours per year defined per the following [see WAC 296-05-015(6)]:

Twelve-month period from date of registration.*

Defined twelve-month school year: (insert month) through (insert month).

Two-thousand hours of on the job training.

**If no selection is indicated above, the WSATC will define RSI hours per twelve-month period from date of registration.*

C. Additional Information:

1. **One hundred sixty (160) hours of related welding instruction shall be provided for the apprentice by the end of 6000 hours of apprenticeship.**

2. **The apprentice shall not be allowed to do any production welding until the welding course is completed.**

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3. **In the event an apprentice has completed all of their required RSI, but has less than the required OJT, the apprentice will not be required to attend further classes unless otherwise directed by the Committee.**

X. ADMINISTRATIVE/DISCIPLINARY PROCEDURES:

A. Administrative Procedures:

The sponsor may include in this section a summary and explanation of administrative actions performed at the request or on the behalf of the apprentice. Such actions may include but are not limited to:

1. Voluntary Suspension: A temporary interruption in progress of an individual's apprenticeship agreement at the request of the apprentice and granted by the sponsor. The program sponsor shall review apprentices in suspended status at least once each year to determine if the suspension is still appropriate.
2. Advanced Standing or Credit: The sponsor may provide for advanced standing or credit for demonstrated competency, acquired experience, training or education in or related to the occupation. All sponsors need to ensure a fair and equitable process is applied to all apprentices seeking advanced standing or credit per WAC 296-05-015(11).

3. Sponsor Procedures:

The apprentice shall read Section X in its entirety and be thoroughly familiarized with its content. The apprentice shall keep a copy for ready reference at all times. The apprentice is cautioned that the penalties are enforced and failure to read the regulation will be no excuse.

1. **Apprentices will be required to take drug tests. All registered apprentices will sign a waiver agreeing to provide the results of all employer administered substance abuse tests. Results shall be furnished to the training program Director within 48 hours of receiving results.**
2. **Failure of a substance test will result in disciplinary action and/or termination from the apprenticeship program. The standard for a negative test is based off of a cut-off level system designed and regulated by the Department of Health and Human Services (DHHS). Refusal or inability to take a drug test shall be considered a failure.**

Disciplinary Action:

First offense: 30 days of non-eligibility for out-of-work list registration. In addition, apprentice will not be eligible for dispatch until he/she appears before

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the Apprenticeship Committee, at one of their regular scheduled meetings, and provides confirmation of a "clean" substance abuse test that the apprentice has paid for. Test must be conducted by the Apprenticeship Committee approved laboratory.

Second offense: Termination from the Apprenticeship Program.

- 3. There will be no discrimination in apprenticeship employment during apprenticeship, including but not limited to, job assignment, promotion, layoff, termination, rates of pay, or other forms of compensation, or conditions of work. All apprentices employed shall be subject to the same job performance requirements. Apprentices shall be informed of their work and related training obligations as stated in these standards.**
- 4. An apprentice must have adequate transportation to the job.**
- 5. All apprentices must procure prescribed tools as advancements occur.**
- 6. The hours of work for apprentices shall be the same as those of the journey-level workers.**
- 7. An apprentice shall not act as a foreman. No apprentice shall act as or be a contractor or Employer.**
- 8. It is the apprentice's responsibility to keep his/her current address on file with the committee and training center.**
- 9. It shall be the apprentice's responsibility to maintain a progress record of work experience performed in accordance with the appropriate classification schedule. Such records shall be forwarded by the apprentice to the Training Director by the 5th day of each month after they have been signed by the employer or appropriate representative of the employer. The above records shall contain the apprentice's (a) name, (b) classification, (c) employer, (d) months and year of report, as well as hours of work performed. The Training Director shall then forward these records to the Apprenticeship Committee prior to each Committee meeting or upon request of the Committee.**

Work experience reports must be turned into the apprenticeship office made out completely and properly, on time. Failure to comply will result in notification of no pay progression until records are completed. The Committee will not accept hours that are more than 90 days past due. Hours may be reported by mail, in person or electronically.

- 10. Extended periods of unemployment will be construed as an unfulfilled training requirement, and the Apprenticeship Committee may place the apprentice in suspension until employment is regained. The Committee shall review all**

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apprentices in "Suspension" on a quarterly basis to determine if continued suspension is reasonable, end suspension to activate registration, or cancel the apprentice agreement with appropriate due notice.

11. All apprentices must be released from "on-the-job" commitments to attend scheduled related supplemental instruction. An apprentice shall notify the Training Director before related supplemental instruction begins of any reason he/she cannot attend required classes and will be responsible to make up all missed related supplemental instruction in a timely manner.
12. Each apprentice shall be required to exercise the same diligence in related classroom work as he/she does in on-the-job training. The determination by the Apprenticeship Committee of an apprentice's progress and fitness for the trade shall be based in part on the proficiency shown in subjects covered in the related trade instruction as well as on the job.
13. Classroom instructors shall keep an attendance record of apprentices' actual class hours. All records shall note tardiness and early departures. A written Evaluation of apprentice progress from the employer and the related training instructor shall be submitted to the Apprenticeship Committee before an apprentice is upgraded.
14. A master record of the apprentice's work experience and related instruction shall be kept by the Training Director and Office Administration. This information is to be furnished by the employer, the apprentice and the school authorities. The record and all dates pertaining to the apprenticeship shall be maintained for record keeping purposes and will be provided to the department upon their request.
15. In the case of dissatisfaction between the apprentice and employer, either has the right and privilege to appeal to the Apprenticeship Committee for such action and adjustment of such matters as come within these Standards.
16. The Apprenticeship Committee may accelerate or extend, through the evaluation process, the advancement of an apprentice in each and every pay scale.
17. A majority vote of the Apprenticeship Committee shall be final in all matters pertaining to training not in conflict with state and federal law or regulations.
18. The apprentices, regardless of wages received, shall be as such until he/she has met all on the job training and related supplemental instruction requirements, as well as passed the required examinations and has been reclassified as a journey-level worker as approved by the Apprenticeship Committee.
19. All Apprenticeship Committee members shall be actively participating in the industry as an employer, supervisor, or employee.

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- 20. The Training Director oversees the day-to-day operations of the program under the direction of the Apprenticeship Committee.**
- 21. Employers may request women and minority apprentices in order to meet their own contractual affirmative action requirements for public works projects or other projects with affirmative action requirements.**
- 22. Apprentices must comply by the following rules and guidelines. Failure to comply may result in disciplinary action.**
 - (a) When notified that an employment referral is available, he/she must respond to the referral within 24 hours. If the apprentice cannot respond in a timely fashion, he/she may drop to the bottom of the referral list. The actual date of dispatch will be mutually agreed upon between the employer and the apprentice.**
 - (b) Apprentice must accept all job referrals within a 70-mile radius of their home address.**
 - (c) Must place themselves on the out-of-worklist (OOWL) by notifying the Training Director within twenty-four (24) hours after termination. If the apprentice is terminated on Friday, they will report by 9:00 AM on the following Monday.**
 - (d) Must send legibly completed, appropriately signed and dated Work Process hours, (OJT Reports), to the Apprenticeship Office by the 5th day of each and every month whether working or not.**
 - (e) Maintain a valid driver license at all times.**
 - (f) Maintain a current address and contact information on file with the Apprenticeship Office and Committee.**
 - (g) Must have adequate dependable transportation to the job and classroom.**
 - (h) Ensure timely payment of their annual tuition for Related Supplemental Instruction.**
- 23. The Committee may, at any time, rotate an apprentice who is not receiving proper training or for any reason they feel will benefit the apprentice.**
- 24. An apprentice who has been issued a refuse to rehire notice will be interviewed by the Training Director, who will review the circumstances and outline corrective steps leading to successful employment. A second refusal to rehire on the same apprentice may require the apprentice to appear before the Apprenticeship Committee for disciplinary action which may include cancellation of the apprentice from the program.**

- 25. High School Graduation or High School Equivalency will be required prior to completion of the Apprenticeship Program.**
- 26. Travel Policies for Apprentices: Location of RSI Training – The Apprenticeship Program will make every effort to offer its training programs around the entire State to better accommodate the needs of its apprentices. Due to the heavy hands-on lab requirements some training will be held at the Spokane facilities. If an apprentice is required to travel more than fifty miles for training or disciplinary procedures, they will be accommodated as follows:**
- a. Lodging – will be arranged and paid for by the program at a local hotel. Apprentices may be required to share rooms, maximum of 2 apprentices per room. Occupants must be of same gender.**
 - b. Food – breakfast and lunch will be provided for ALL apprentices attending training. Those apprentices that are required to travel will be given a stipend of \$20.00 a day for dinner.**
 - c. Mileage – mileage will be reimbursed at the current Federal allowed rate.**
- 27. Related Supplemental Instruction Training is provided at the following locations:**
- a. Eastern Washington: Classroom and lab training will take place at the Spokane Community College Apprenticeship and Training Center, or at the Inland Northwest Associated General Contractors, Spokane, WA.**
 - b. Central Washington: Classroom will take place at the Inland Northwest Associated General Contractors, Kennewick, WA. If lab is a required portion of instruction, the program may elect to hold that training at the Spokane, WA training facilities or partner with an Approved Training Agent offering appropriate facilities to perform the lab.**
 - c. Due to the portability of the apprenticeship program curriculum some courses may be made available in other locations than those stated above. For example, if a large training agent has several apprentices in need of training, we have the capability to take certain training modules to them. This will be worked out on a case by-case basis.**

B. Disciplinary Procedures

- 1. The obligations of the sponsor when taking disciplinary action are as follows:**
 - a. The sponsor shall be responsible for enacting reasonable policies and procedures and applying them consistently. The sponsor will inform all apprentices of their rights and responsibilities per these standards.**

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- b. The sponsor shall notify the apprentice of intent to take disciplinary action and reasons therefore 20 calendar days prior to taking such action. The reason(s) supporting the sponsor's proposed action(s) must be sent in writing to the apprentice.
 - c. The sponsor must clearly identify the potential outcomes of disciplinary action, which may include but are not limited to discipline, suspension or cancellation of the apprenticeship agreement.
 - d. The decision/action of the sponsor will become effective immediately.
2. The sponsor may include in this section requirements and expectations of the apprentices and an explanation of disciplinary actions imposed for noncompliance. The sponsor has the following disciplinary procedures to adopt:
- a. Disciplinary Probation: A time assessed when the apprentice's progress is not satisfactory. During this time the sponsor may withhold periodic wage advancements, suspend or cancel the apprenticeship agreement, or take further disciplinary action. A disciplinary probation may only be assessed after the initial probation is complete.
 - b. Disciplinary Suspension: A temporary interruption in the progress of an individual's apprenticeship agreement. Conditions will include not being allowed to participate in On-the-Job Training (OJT), go to Related Supplemental Instruction (RSI) classes or take part in any activity related to the Apprenticeship Program until such time as the sponsor takes further action. The program sponsor shall review apprentices in such status at least once each year.
 - c. Cancellation: Refers to the termination of an apprenticeship agreement at the request of the apprentice, supervisor, or sponsor. [WAC 296-05-003].
3. Sponsor Disciplinary Procedures:
- A. Disciplinary Procedures:**
- 1. Disciplinary problems may first be handled by the Training Director. If the Training Director deems appropriate, the matter may be referred to the Apprenticeship Committee for action.**
 - 2. Apprentices who refuse work assignments are subject to disciplinary action that may include cancellation of his/her apprenticeship agreement.**
 - 3. An apprentice may be discharged from a contractor's employ for unsatisfactory work, improper conduct, indifference to the rules and regulations, or insubordination. Apprentices shall be informed of their**

work and related supplemental training obligations as stated in these Standards. The Committee and/or its designate shall notify the apprentices of any violations of the obligation and shall summon the apprentice to appear before the Committee for review. Should circumstances warrant, the Committee may terminate the apprentice's agreement in conformance with WAC 296-05.

- 4. Failure to show regular attendance at related supplemental instruction classes will be deemed sufficient cause for the Apprenticeship Committee to drop the apprentice from the entire training program. Appearing late or leaving early, as reported by the training facility, is an absence. More than 2 unexcused absences from class during each quarter may be deemed cause for suspension from work and school until meeting with the Apprenticeship Committee. The non-probationary apprentice will be sent a 20 -day notification letter advising them of the requirement to attend the next regularly scheduled Apprenticeship Committee meeting and why their attendance is mandatory. Failure to attend the Apprenticeship Committee meeting could result in the immediate termination of the Apprenticeship Agreement. The apprentice will also be required to sign a document stating that they understand the consequences of another unexcused absence. Four (4) unexcused absences from class during the school year may be deemed cause by the Committee for the apprentice being dropped from the program. Two (2) tardies to class is equal to one (1) absence.**

Excused absences may be allowed for: (1) Illness of apprentice (2) Trips or vacations, by prior approval of the Apprenticeship Committee and/or Training Director (3) Death of immediate family member (4) Any other reasons deemed appropriate by the Committee.

- 5. Apprentices who have missed related supplemental instruction, as outlined in these Standards, will not be eligible for employment until such time as the requirement is satisfied.**
- 6. During the Initial Probationary Period, apprentices who fail to attend scheduled related supplemental instruction classes may be cancelled from the apprenticeship program.**
- 7. If an apprentice is fired for cause or quits (after their initial probationary period), he/she will not be re-dispatched until he/she appears before the Apprenticeship Committee or its designee and is subsequently released by the Committee or its designee as eligible for work.**
- 8. It shall be the apprentice's responsibility to maintain a progress record of work experience performed in accordance with the appropriate**

classification schedule. Such records shall be forwarded by the apprentice to the Training Director on the 5th day of each month after they have been signed by the employer or appropriate representative of the employer. The above records shall contain the apprentice's name, classification, employer, month and year of report, as well as hours of work performed. Failure to comply will result in notification of no pay progression until records are completed. The Committee will not apply hours towards advancement that are more than ninety (90) days past due. Hours may be reported by mail, in person or electronically.

Each apprentice who is late in turning in his/her work experience report will have the following penalties imposed: (1) First Offense; up to 30 days actual work delay in his/her next advancement. (2) Second Offense: Up to 60 days actual work delay in his/her work advancement. (3) Third Offense: Cause for cancellation of registration.

- 9. All other disciplinary action procedures are as follows; (1) First Infraction: A written and/or verbal warning. (2) Second Infraction: Appearance before the Apprenticeship Committee by the apprentice to justify why advancement should not be denied, his/her Apprenticeship Agreement should not be cancelled or whatever other action is being contemplated by the Apprenticeship Committee. (3) Third Infraction: Cause for cancellation of the Apprenticeship Agreement.**
- 10. If the apprentice fails to appear before the Committee after due notice, disciplinary action may be invoked without hearing.**
- 11. Should the Apprenticeship Committee find reason to suspend or cancel an Apprenticeship Agreement, the apprentice shall be notified in writing specifying the reason or the suspension, cancellation or any other disciplinary action. The apprentice shall be notified 20 days in advance of the meeting of the Committee for the purpose of disciplinary action, suspension, or cancellation.**
- 12. Individuals who are terminated from the program for cause are prohibited from reapplying to the program for a period of twelve (12) months from the date of their cancellation**
- 13. Travel Policies for Apprentices for Disciplinary Procedures – The Apprenticeship Program will make every effort to conduct disciplinary hearings around the entire State to better accommodate the needs of its apprentices. If an apprentice is required to travel more than fifty miles for disciplinary procedures, they will be accommodated as follows:**

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- a. **Lodging – If an overnight stay is required lodging will be arranged and paid for by the program at a local hotel. Apprentices may be required to share rooms, maximum of 2 apprentices per room.**
- b. **Food – If necessary, breakfast and lunch will be provided for apprentices who have to travel more than 50 miles to attend a disciplinary hearing. Those apprentices that are required to travel will be given a stipend of \$20.00 a day for dinner.**
- c. **Mileage – mileage will be reimbursed at the current Federal allowed rate.**

B. Local Apprenticeship Committee Policies:

- 1. Safety: there will be no tolerance for unsafe conditions, improper use of hazardous materials or dangerous tools and equipment.**
- 2. All equipment and tools shall be maintained in a safe condition and used only for their intended purpose. All students must wear required protective equipment when working with tools or materials where it is required. Anyone not adhering to this policy will be asked to leave the class and will be marked absent from class.**
- 3. Possession, consumption and/or sale of controlled substances, alcohol or firearms during class hours on training facility property, which includes parking areas, may result in disciplinary action by the Committee, up to and including cancelation from the apprenticeship program.**
- 4. Physical/verbal abuse, harassment or insubordination of any type toward staff, fellow classmates and/or the instructor will not be tolerated and may result in disciplinary action by the Committee, up to and including cancelation from the apprenticeship program.**

C. Apprentice Complaint Procedures:

1. The apprentice must complete his/her initial probationary period in order to be eligible to file a complaint (WAC 296-05-105).
2. Complaints involving matters covered by a collective bargaining agreement are not subject to the complaint procedures in this section.
3. Complaints regarding non-disciplinary matters must be filed with the program sponsor within 30 calendar days from the date of the last occurrence. Complaints must be in writing.
4. If the apprentice disagrees with the resolution of the complaint or wishes to contest the outcome of a disciplinary action by the program sponsor, the apprentice must file a written request for reconsideration with the program sponsor within 30 calendar

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days from the date the apprentice received written notice of action by the program sponsor.

5. The program sponsor must reply, in writing, to the request for reconsideration within 30 calendar days from the date the program sponsor receives the request. The program sponsor must send a copy of the written reply to the apprentice within the 30 calendar days.
6. If the apprentice disagrees with the program sponsor's decision, the apprentice may file an appeal with the Apprenticeship Program, (WAC 296-05-105). If the apprentice does not timely file an appeal, the decision of the program sponsor is final after 30 calendar days from the date the program sponsor mails the decision to the apprentice. See section "D" below.

D. Apprentice Complaint Review/Appeals Procedures:

1. If the apprentice disagrees with the program sponsor's decision, the apprentice must submit a written appeal to L&I's apprenticeship section within 30 calendar days from the date the decision is mailed by the program sponsor. Appeals must describe the subject matter in detail and include a copy of the program sponsor's decision.
2. The L&I apprenticeship section will complete its investigation within 30 business days from the date the appeal is received and attempt to resolve the matter.
3. If the Apprenticeship section is unable to resolve the matter within 30 business days, the Apprenticeship section issues a written decision resolving the appeal.
4. If the apprentice or sponsor is dissatisfied with L&I's decision, either party may request the WSATC review the decision. Requests for review to the WSATC must be in writing. Requests for review must be filed within 30 calendar days from the date the decision is mailed to the parties.
5. The WSATC will conduct an informal hearing to consider the request for review.
6. The WSATC will issue a written decision resolving the request for review. All parties will receive a copy of the WSATC's written decision.

XI. SPONSOR – RESPONSIBILITIES AND GOVERNING STRUCTURE

The following is an overview of the requirements associated with administering an apprenticeship program. These provisions are to be used with the corresponding RCW and/or WAC. The sponsor is the policymaking and administrative body responsible for the operation and success of this apprenticeship program. The sponsor may assign an administrator or a committee to be responsible for day-to-day operations of the apprenticeship program. Administrators and/or committee members must be knowledgeable

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in the process of apprenticeship and/or the application of chapter 49.04 RCW and chapter 296-05 WAC and these standards. If applicable, sponsors must develop procedures for:

A. Committee Operations (WAC 296-05-009): (Not applicable for Plant Programs)

Apprenticeship committees must be composed of an equal number of management and non-management representatives from a minimum of four to a maximum of twelve members. Committees must convene meetings at least three times per year attended by a quorum of committee members as defined in these approved standards.

B. Program Operations

The sponsor will record and maintain records pertaining to the administration of the apprenticeship program and make them available to the WSATC or Department upon request. Records required by WAC 296-05-100 will be maintained for five (5) years; all other records will be maintained for three (3) years. Apprenticeship sponsors will submit required forms/reports to the Department of Labor and Industries through one of the two prescribed methods below:

Sponsors shall submit required forms/reports through assigned state apprenticeship consultant.

Or;

Sponsors shall submit required forms/reports through the Apprentice Registration and Tracking System (ARTS), accessed through Secure Access Washington (SAW).

Paper forms as well as ARTS external access forms are available from the sponsor's assigned apprenticeship consultant or online at:

<http://www.lni.wa.gov/TradesLicensing/Apprenticeship/FormPub/default.asp>.

1. The following is a listing of forms/reports for the administration of apprenticeship programs and the time-frames in which they must be submitted:
 - a. Apprenticeship Agreements – within first 30 days of employment
 - b. Authorization of Signature forms - as necessary
 - c. Approved Training Agent Agreements– within 30 days of sponsor action
 - d. Minutes of Apprenticeship Committee Meetings – within 30 days of sponsor approval (not required for Plant program)
 - e. Request for Change of Status - Apprenticeship/Training Agreement and Training Agents forms – within 30 days of action by sponsor.
 - e. Journey Level Wage Rate – annually, or whenever changed as an addendum to section VII. Apprentice Wages and Wage Progression.
 - g. Related Supplemental Instruction (RSI) Hours Reports (Quarterly):
 - 1st quarter: January through March, due by April 10
 - 2nd quarter: April through June, due by July 10
 - 3rd quarter: July through September, due by October 10
 - 4th quarter: October through December, due by January 10

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- h. On-the-Job Work Hours Reports (bi-annual)
 - 1st half: January through June, by July 30
 - 2nd half: July through December, by January 31
2. The program sponsor will adopt, as necessary, local program rules or policies to administer the apprenticeship program in compliance with these standards. Requests for revision to these standards of apprenticeship must be submitted 45 calendar days prior to a quarterly WSATC meeting. The Department of Labor and Industries, Apprenticeship Section's manager may administratively approve requests for revisions in the following areas of the standards:
 - a. Program name
 - b. Sponsor's introductory statement
 - c. Section III: Conduct of Program Under Washington Equal Employment Opportunity Plan
 - d. Section VII: Apprentice Wages and Wage Progression
 - e. Section IX: Related/Supplemental Instruction
 - f. Section XI: Sponsor – Responsibilities and Governing Structure
 - g. Section XII: Subcommittees
 - h. Section XIII: Training Director/Coordinator
3. The sponsor will utilize competent instructors as defined in WAC 296-05-003 for RSI. Furthermore, the sponsor will ensure each instructor has training in teaching techniques and adult learning styles, which may occur before or within one year after the apprenticeship instructor has started to provide instruction.

C. Management of Apprentices:

1. Each apprentice (and, if under 18 years of age, the parent or guardian) will sign an apprenticeship agreement with the sponsor, who will then register the agreement with the Department before the apprentice attends RSI classes, or within the first 30 days of employment as an apprentice. For the purposes of industrial insurance coverage and prevailing wage exemption under RCW 39.12.021, the effective date of registration will be the date the agreement is received by the Department.
2. The sponsor must notify the Department within 30 days of all requests for disposition or modification to apprentice agreements, which may include:
 - a) Certificate of completion
 - b) Additional credit
 - c) Suspension (i.e. military service or other)
 - d) Reinstatement
 - e) Cancellation
 - f) Corrections
 - g) Step Upgrades
 - h) Probation Completion date
 - i) Other (i.e., name changes, address)
 - j) Training Agent Cancellation

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3. The sponsor commits to rotate apprentices in the various processes of the skilled occupation to ensure the apprentice is trained to be a competent journey-level worker.
4. The sponsor shall periodically review and evaluate apprentices before advancement to the apprentice's next wage progression period. The evidence of such advancement will be the record of the apprentice's progress on the job and during related/supplemental instruction.
5. The sponsor has the obligation and responsibility to provide, insofar as possible, reasonably continuous employment for all apprentices in the program. The sponsor may arrange to transfer an apprentice from one training agent to another or to another program when the sponsor is unable to provide reasonably continuous employment, or they are unable to provide apprentices the diversity of experience necessary for training and experience in the various work processes as stated in these standards. The new training agent will assume all the terms and conditions of these standards. If, for any reason, a layoff of an apprentice occurs, the apprenticeship agreement will remain in effect unless canceled by the sponsor.
6. An apprentice who is unable to perform the on-the-job portion of apprenticeship training may, if the apprentice so requests and the sponsor approves, participate in related/supplemental instruction, subject to the apprentice obtaining and providing to the sponsor written requested document/s for such participation. However, time spent will not be applied toward the on-the-job portion of apprenticeship training.
7. The sponsor shall hear and decide all complaints of violations of apprenticeship agreements.
8. Upon successful completion of apprenticeship, as provided in these standards, and passing the examination that the sponsor may require, the sponsor will recommend the WSATC award a Certificate of Completion of Apprenticeship. The sponsor will make an official presentation to the apprentice who has successfully completed his/her term of apprenticeship.

D. Training Agent Management:

1. The sponsor shall offer training opportunities for apprentices by ensuring reasonable and equal working and training conditions are applied uniformly to all apprentices. The sponsor shall provide training at an equivalent cost to that paid by other employers and apprentices participating in the program. The sponsor shall not require an employer to sign a collective bargaining agreement as a condition of participation.
2. The sponsor must determine whether an employer can adequately furnish proper on the job training to an apprentice in accordance with these standards. The sponsor must also require any employer requesting approved training status to complete an approved training agent agreement and to comply with all federal and state apprenticeship laws, and these standards.

Inland Northwest Chapter Associated General Contractors Boilermaker AC

3. The sponsor will submit training agent agreements to the Department with a copy of the agreement and/or the list of approved training agents within thirty calendar days from the effective date. Additionally, the sponsor must submit rescinded training agent agreements to the Department within thirty calendar days of said action.

E. Committee governance (if applicable): (see WAC 296-05-009)

1. Apprenticeship committees shall elect a chairperson and a secretary who shall be from opposite interest groups, i.e., chairperson-employers; secretary-employees, or vice versa. If the committee does not indicate its definition of quorum, the interpretation will be “50% plus 1” of the approved committee members. The sponsor must also provide the following information:

The Apprenticeship Committee shall be composed of equal members representing employers of the industry.

Selection of Employee Representatives, (Apprentice Advocates), to the Committee is as follows:

When there is an Employee representative opening on the Committee, the Training Agents must present to their Journey-Level Worker Boilermakers the request for a volunteer or nominations from among the Journey-Level Boilermakers to the Committee. If there are more nominations than the openings on the committee, then an election to select the final nominee(s) must be completed.

Note: The volunteer or nominee must meet the definition of a Journey-Level person in the Boilermaker field of work. The apprenticeship must document the selection and election process. Nominations submitted without qualification documentation will not be considered for the final selection.

Once the volunteer or nominee has been selected, that name must be submitted to the AGC's Construction Center's Coordinator located at 4935 East Trent, Spokane, Washington, 99212.

- a. Quorum: **50% of the current committee members**
- b. Program type administered by the committee: **GROUP NON-JOINT**
- c. The employer representatives shall be:

**Rhett Dixon
PO Box 11901
Spokane Valley, WA 99211**

**Cary Clemenson
PO Box 11901
Spokane Valley, WA 99211**

Inland Northwest Chapter Associated General Contractors Boilermaker AC

d. The employee representatives shall be:

**Robin Weed
PO Box 11901
Spokane Valley, WA 99211**

**Chris Bitterman
PO Box 11901
Spokane Valley, WA 99211**

F. Plant programs

For plant programs the WSATC or the Department designee will act as the apprentice representative. Plant programs shall designate an administrator(s) knowledgeable in the process of apprenticeship and/or the application of chapter 49.04 RCW and chapter 296-05 WAC and these standards.

The designated administrator(s) for this program is/are as follows:

N/A

XII. SUBCOMMITTEE:

Subcommittee(s) approved by the Department, represented equally from management and non-management, may also be established under these standards, and are subject to the main committee. All actions of the subcommittee(s) must be reviewed by the main committee. Subcommittees authorized to upgrade apprentices and/or conduct disciplinary actions must be structured according to the same requirements for main committees.

NONE

XIII. TRAINING DIRECTOR/COORDINATOR:

The sponsor may employ a person(s) as a full or part-time training coordinator(s)/ training director(s). This person(s) will assume responsibilities and authority for the operation of the program as are delegated by the sponsor.

**Mike Ankney
Director
PO Box 11901
Spokane Valley, WA 99211**

**Jessica Moody
Assistant Director
PO Box 11901
Spokane Valley, WA 99211**

Teri Gardner 9-1-2020

R6a rec'd 8.31.2020 EML

Department of Labor & Industries
Apprenticeship Section
PO Box 44530
Olympia WA 98504-4530



Journey Level Wage Rate

From which apprentices' wages rates are computed

TO: Washington State Apprenticeship & Training Council

From Inland Northwest Chapter Associated General Contractors Boilermaker Apprenticeship
Committee

(NAME OF STANDARDS)

Occupations	County(s)	Journey Level Wage Rate	Effective Date:
Boilermaker	All Counties in the State of Washington	\$46.94 hr.	10/17/2020

Department of Labor and Industries
 Apprenticeship Section
 PO Box 44530
 Olympia WA 98504-4530



Apprenticeship Committee Representative Qualification Information Experience & Education History

NAME OF PROGRAM/SPONSOR:	Inland Northwest Chapter Associated General Contractors Boilermaker Apprenticeship Committee
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Committee Representative Name: Rhett Dixon

WORK EXPERIENCE			
POSITION (Most recent first)	EMPLOYER / ORGANIZATION	FROM: (Month & Year)	TO: (Month & Year)
General Manager Operations	Brinderson LLC	4/2017	Present
Project Director/Sponsor	Matrix Service Inc.	10/1995	4/2017
Project Controls	Brown & Root	9/1990	10/1995

EDUCATION HISTORY				
Name and Location of Training and/or School	Month/Year Attended		Program of Study	Type of Certificate or Degree Awarded, if any
	From	To		
Mount Vernon High School	1984	1988	General	Diploma

OTHER TECHNICAL CERTIFICATIONS or LICENSES HELD

Sponsors may attach additional pages if necessary.

Department of Labor and Industries
 Apprenticeship Section
 PO Box 44530
 Olympia WA 98504-4530



Apprenticeship Committee Representative Qualification Information Experience & Education History

NAME OF PROGRAM/SPONSOR:	Inland Northwest Chapter Associated General Contractors Boilermaker Apprenticeship Committee
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Committee Representative Name: Cary Clemenson

WORK EXPERIENCE			
POSITION (Most recent first)	EMPLOYER / ORGANIZATION	FROM: (Month & Year)	TO: (Month & Year)
Maintenance Division Manager	Matrix Service	Jan 2019	Current
BPCHP Matrix Site Manager	Matrix Service	Jan 2016	Dec 2019
BPCHP Refinery Const Manager	BP	Jan 2013	Dec 2015
BPCHP Reformer Process Supt	BP	Jan 2010	Dec 2012
BPCHP Utilities	BP	Jan 2007	Dec 2009
BPCHP Hydrocracker Forman	BP	Dec 1999	Dec 2006

EDUCATION HISTORY				
Name and Location of Training and/or School	Month/Year Attended		Program of Study	Type of Certificate or Degree Awarded, if any
	From	To		
US Navy	Aug 1986	Aug 1987	Operations Specialist	None
Ferndale High School	Sept 1982	June 1986	High School	Diploma

OTHER TECHNICAL CERTIFICATIONS or LICENSES HELD

Department of Labor and Industries
 Apprenticeship Section
 PO Box 44530
 Olympia WA 98504-4530



Apprenticeship Committee Representative Qualification Information Experience & Education History

NAME OF PROGRAM/SPONSOR:	Inland Northwest Chapter Associated General Contractors Boilermaker Apprenticeship Committee
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Committee Representative Name: Robin Weed
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WORK EXPERIENCE			
POSITION (Most recent first)	EMPLOYER / ORGANIZATION	FROM: (Month & Year)	TO: (Month & Year)
Welder/Boilermaker	Matrix Service	May 2014	Current
Teachers Aid	LIBC	2012	April 2014

EDUCATION HISTORY				
Name and Location of Training and/or School	Month/Year Attended		Program of Study	Type of Certificate or Degree Awarded, if any
	From	To		
GED	2010			

OTHER TECHNICAL CERTIFICATIONS or LICENSES HELD

Sponsors may attach additional pages if necessary.

Department of Labor and Industries
 Apprenticeship Section
 PO Box 44530
 Olympia WA 98504-4530



Apprenticeship Committee Representative Qualification Information Experience & Education History

NAME OF PROGRAM/SPONSOR:	Inland Northwest Chapter Associated General Contractors Boilermaker Apprenticeship Committee
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Committee Representative Name: Chris Bitterman
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WORK EXPERIENCE			
POSITION (Most recent first)	EMPLOYER / ORGANIZATION	FROM: (Month & Year)	TO: (Month & Year)
Boilermaker Foreman	Brinderson	6/2016	Present
Roustabout/Boilermaker	Transfield	12/2014	6/2016
Roustabout/Boilermaker	Matrix	6/2013	12/2014

EDUCATION HISTORY				
Name and Location of Training and/or School	Month/Year Attended		Program of Study	Type of Certificate or Degree Awarded, if any
	From	To		
Bellingham Technical College	2012	2013	Instrumentation and Electrical	NA
Anacortes High School	2000	2004	General Studies	Diploma

OTHER TECHNICAL CERTIFICATIONS or LICENSES HELD
Rigger and Signal Person Certified
NCCER Industrial Maintenance Mechanic

Sponsors may attach additional pages if necessary.

Teri Gardner 9-1-2020

Apprenticeship Related/Supplemental Instruction (RSI) Plan Review

Program Sponsor Inland Northwest Chapter Associated General Contractors Boilermaker Apprenticeship Committee	
Skilled Occupational Objective Boilermaker	
Term/OJT Hours 6000	Total RSI Hours 640
Training Provider Inland NWC Associated General Contractors Boilermaker Apprenticeship Committee	

By the signature placed below, the **program sponsor** agrees to provide the prescribed RSI for each registered apprenticeship and assures that:

1. The RSI content and delivery method is and remains reasonably consistent with the latest occupational practices, improvements, and technical advances.
2. The RSI is coordinated with the on-the-job work experience.
3. The RSI is provided in safe and healthful work practices in compliance with WISHA and applicable federal and state regulations.

Inland Northwest Chapter Associated General Contractors Boilermaker Apprenticeship Committee

Printed Name of Program Sponsor



Signature of Program Sponsor

By the signature placed below, the **training provider** assures that:

1. The RSI will be conducted by instructors who meet the qualifications of "competent instructor" as described in WAC 296-05-003.
 - a. Has demonstrated a satisfactory employment performance in his/her occupation for a minimum of three years beyond the customary learning period for that occupation; and
 - b. Meets the State Board for Community and Technical Colleges requirements for a professional technical instructor (see WAC 131-16-080 through -094), or be a subject matter expert, which is an individual, such as a journey worker, who is recognized within the industry as having expertise in a specific occupation; and
 - c. Has training in teaching techniques and adult learning styles, which may occur before or within one year after the apprenticeship instructor has started to provide the related technical instruction.
2. If using alternative forms of instruction, such as correspondence, electronic media, or other self-study, such instruction is clearly defined.

Michael L Ankney

Print Name Training Provider



Signature of Training Provider

Director

Title of Training Provider

Inland NW AGC Apprenticeship

Organization of Training Provider

If there are additional training providers, please provide information and signatures on the next page.

Additional Resources: [Apprenticeship Related Supplemental Instruction \(RSI\) Plan Review Glossary of Term \(F100-519-000\)](#) and [Apprenticeship Related Supplemental Instruction \(RSI\) Plan Review Criteria \(F100-521-000\)](#).

SBCTC Program Administrator has reviewed RSI plan and recommendations of the Trade Committee.

Click or tap here to enter text.

Print Name of SBCTC Program Administrator

Signature of SBCTC Program Administrator

Date

SBCTC recommends approval

SBCTC recommends return to sponsor

Additional Training Providers (if necessary)

Click or tap here to enter text.

Print Name Training Provider

Click or tap here to enter text.

Title of Training Provider

Click or tap here to enter text.

Print Name Training Provider

Click or tap here to enter text.

Title of Training Provider

Click or tap here to enter text.

Print Name Training Provider

Click or tap here to enter text.

Title of Training Provider

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Program Sponsor: Inland Northwest Chapter Associated General Contractors Boilermaker AC	Skilled Occupational Objective: Boilermaker
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Note: The description of each element must be in sufficient detail to provide adequate information for review by the SBCTC and Review Committee. To add more elements, click on the plus sign that appears below the "Description of element/course" field.

Describe minimum hours of study per year in terms of (check one):

- 12-month period from date of registration.
- Defined 12-month school year.
- 2,000 hours of on-the-job training.

Element/Course: Introduction to Boilermaking, Year 1	Planned Hours: 10
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Provides an overview of the boilermaker craft, including the uses of boilers in industry, common terms used in the field, and a description of the career opportunities available.	

Element/Course: Boilermaking Safety, Year 1	Planned Hours: 12.5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Covers safety issues specific to the boilermaker craft, focusing on the proper use of safety equipment used by boilermakers on the job	

Element/Course: Boilermaking Tools, Year 1	Planned Hours: 15
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Introduces the wide variety of hand and power tools used by boilermakers. Covers hydraulic, pneumatic, and electric power tools and the safety concerns associated with these tools.	

Element/Course: Basic Materials Year 1	Planned Hours: 10
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Identifies and discusses the various types of materials used in the construction of boilers. Includes coverage of material properties, standards and codes, and material markings.	

Element/Course: Oxyfuel Cutting Year 1	Planned Hours: 17.5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Explains the safety requirements associated with oxyfuel cutting. Covers the equipment and its safe setup and use, including straight line, beveling, piercing, and washing techniques.	

Element/Course: Cutting and Fitting Gaskets, Year 1	Planned Hours: 12.5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship Click or tap here to enter text.	
Description of element/course: Describes the various types of gasket materials used in mating flanges and presents the proper procedures for laying out and cutting a flange gasket. Features the proper tightening procedure for mating flanges.	

Element/Course: Base Material Preparation, Year 1	Planned Hours: 10
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Describes how to clean and prepare all types of base metals for cutting and welding.	

Element/Course: Welding Basics, Year 1	Planned Hours: 22.5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Describes the different welding and cutting procedures and related equipment. Includes filler metals and their applications. Covers joint design and the codes that govern welding practices.	

Element/Course: OSHA 10 for the Construction Industry, Year 1	Planned Hours: 11
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Click or tap here to enter text.	

Element/Course: First Aid/CPR & AED, Year 1	Planned Hours: 6
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Click or tap here to enter text.	

Element/Course: Flagger Certification, Year 1	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Click or tap here to enter text.	

Element/Course: Boiler Systems and Components, Year 2	Planned Hours: 22.5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Introduces the trainee to different boiler configurations and applications. Identifies different boiler components and explains their functions.	

Element/Course: Identifying & Installing Valves, Year 2	Planned Hours: 20
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Identifies and explains different types of valves found in boiler systems. Identifies valve components and explains their functions. Explains how to select, store, handle, and install valves. Also explains how to interpret valve markings and nameplate information found on valves.	

Element/Course: Pipe Hangers & Supports, Year 2	Planned Hours: 25
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Identifies pipe hangers and supports found on the job. Explains how to read and interpret pipe support drawings and symbols. Explains how to select, store, handle, install, and maintain spring supports.	

Element/Course: Drawings and Detail Sheets, Year 2	Planned Hours: 15
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship Click or tap here to enter text.	
Description of element/course: Explains how to read blueprints or drawings and their symbols. Explains plot plans, structural drawings, elevation drawings, as-built drawings, equipment arrangement drawings, P&IDs, isometric drawings, spool sheets, detail sheets, and orthographic drawings..	

Element/Course: Fasteners & Anchors, Year 2	Planned Hours: 5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Covers threaded and non-threaded fasteners and anchoring devices. Explains how to select fasteners and anchors for given applications. Describes and explains how to install threaded, non-threaded, and insulated fasteners and anchors.	

Element/Course: Welding Symbols, Year 2	Planned Hours: 5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Explains the different parts of a welding symbol and to read symbols on welding drawings, specifications, and welding procedure specifications. Describes the symbols for fillet welds, groove welds, miscellaneous other welds, and non-destructive tests.	

Element/Course: Socket Weld Pipe Fabrication, Year 2	Planned Hours: 25
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Identifies and explains different types of socket welds piping materials and fittings. Explains how to read socket weld piping drawings. Explains how to determine pipe lengths between socket weld fittings, as well as how to mate socket weld fittings to pipe.	

Element/Course: Butt Weld Pipe Fabrication, Year 2	Planned Hours: 40
Mode of Instruction (check all that apply)	

<input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Covers preparing pipe ends for butt welding; determining pipe lengths between butt weld fittings; and using welding jigs to align pipe and butt weld fittings for welding. Explain how to select and install backing rings.	
Element/Course: Tube Weld Preparation & Fitting, Year 2	Planned Hours: 15
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Describes the various methods used to gain access to boiler tubes needing repair, as well as the methods used to prepare boiler tubes for replacement. Explains how to fit-up a section of boiler tube. Describes welding procedures for making butt welds on standard carbon steel tubes and composite tubes.	
Element/Course: Air Carbon Arc Cutting and Gouging, Year 2	Planned Hours: 12.5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Describes air carbon arc cutting (CAC-A) equipment and processes. Explains how to select and install CAC-A electrodes and how to prepare work area and CAC-A equipment for safe operation. Also provides instructions for using CAC-A equipment for washing and gouging activities.	
Element/Course: Plasma Arc Cutting, Year 3	Planned Hours: 10
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Explains plasma arc cutting equipment and safe work area preparation. Identifies correct amperage settings, gas pressures, and flow rates. Covers plasma arc cutting methods for piercing, slotting, squaring, and beveling metals. Explains how to store equipment and clean the work area.	
Element/Course: Boiler Pressure Components, Year 3	Planned Hours: 25
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Describes the pressure components of a boiler system and their locations. Explains the procedures required to repair pressure components of a boiler.	
Element/Course: Boiler Non-Pressure Components, Year 3	Planned Hours: 12.5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Describes the non-pressure components of a boiler system and their locations. Explains the procedures required to repair non-pressure components of a boiler	
Element/Course: Boiler Auxiliaries, Year 3	Planned Hours: 25
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course:	

Describes the air flow systems within a boiler system. Explains the different fuels used to fire boiler system furnaces. Describes ash removal systems and the equipment used to protect the environment. Covers the feed water system into a boiler and the blow down from a boiler system.

Element/Course: Brick, Refractor, Insulation, & Lagging (BRIL), Year 3	Planned Hours: 5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Describes the various types of BRIL and explains their functions. Also addresses the hazards associated with BRIL.	

Element/Course: Advanced Tube Work, Year 3	Planned Hours: 20
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Explains the methods used to identify problem tubes and the methods used to extract them. Also describes the methods used for replacing and plugging tubes.	

Element/Course: Testing Piping Systems & Equipment , Year 3	Planned Hours: 20
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Inland NW AGC Apprenticeship	
Description of element/course: List pretest requirements for boiler system piping systems and equipment. Describes service and flow tests, head pressure tests, and hydrostatic tests performed on boiler system piping systems and equipment.	

Element/Course: Rigging, Year 3	Planned Hours: 22.5
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Describes common rigging hardware and equipment and how to inspect it. Identifies special rigging equipment. Covers the knots used in rigging and the hand signals used to communicate with crane operators. Describes basic rigging and crane safety procedures. Explains how to balance loads.	

Element/Course: Towers and Exchangers, Year 3	Planned Hours: 25
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Explains the basic distillation process. Identifies various types of towers and their components. Explains the function of various types of towers. Identifies various types of exchangers and their components. Explains exchanger functions.	

Element/Course: Advanced Mechanical Trade Math, Year 4	Planned Hours: 15
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study	
Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Covers tables of equivalents and units of conversion. Explains the basics of trigonometry and to apply it to the installation of pipe. Explains how to calculate the weight of objects.	

Element/Course: Advanced Rigging, Year 4	Planned Hours: 20
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Explains how to determine the center of gravity for objects to be rigged and how a load's weight and center of gravity affects lifting devices such as cranes. Describes how to use cribbing to support lifted loads. Covers the use of slings and spreader or equalizer bars to lift loads. Describes the tools used to move loads laterally. Explains how to determine the center of gravity of asymmetrical loads.	

Element/Course: Advanced Boilermaking Construction Drawings, Year 4	Planned Hours: 20
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Covers symbols and abbreviations used on piping and instrumentation drawings (P&IDs) and piping arrangement drawings. Explains how to read and interpret different types of construction drawings. Explains how to sketch an isometric drawing from a plan view drawing, and how to calculate line lengths from isometric drawings.	

Element/Course: Advanced Pipe Fabrication, Year 4	Planned Hours: 20
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Describes how to lay out and fabricate mitered bends, laterals, wyes, and ninety-degree intersections using tables of ordinates or calculator. This knowledge is required in order to fabricate specialty bends and intersections.	

Element/Course: Stress Relieving, Year 4	Planned Hours: 10
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Covers metal distortion and ways to prevent it. Explains thermal growth in metals, and how to calculate thermal growth in given metals. Explains how misalignment creates stress in metals. Describes ways to relieve stress in piping that is experiencing distortion due to welding, thermal growth, or misalignment.	

Element/Course: Quality Assurance, Year 4	Planned Hours: 10
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Covers codes governing welding and boilers. Describes weld imperfections and their causes. Identifies and explains different nondestructive and destructive testing methods. Explains how to make visual inspections of fillet welds. Describes welder qualification testing, and stresses the importance of quality workmanship.	

Element/Course: Advanced Exchangers, Year 4	Planned Hours: 25
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Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Identifies different types of heat exchangers and their components. Describes methods used to test exchangers, and how to pull exchanger bundles. Explains how to replace a flange and a nozzle on an exchanger.	

Element/Course: Advanced Towers, Year 4	Planned Hours: 25
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input checked="" type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Identifies different types of towers and their components. Explains how to remove and replace different types of packing used in towers. Describes methods used to make field repairs to tower trays. Explains how to remove a tower distributor for maintenance.	

Element/Course: Introduction to Confined Space in Construction, Year 1	Planned Hours: 2
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: This introduction to Confined Space in Construction safety course is a more detailed review of confined spaces for attendants, entrants, supervisors, and managers where the student will learn about OSHA's new Confined Space in Construction regulation (29 CFR 1926 Subpart AA) and its fundamental requirements. This course focuses on the basics for recognizing, evaluating and controlling confined spaces. The student will learn about the guidelines set by OSHA for confined spaces and Confined Space Entry (CSE) program procedures that should be set by employers to ensure safety while working at the job site. In addition, students will be shown ways to prevent confined space injuries in the workplace.	

Element/Course: Financial Tools for the Trades, Year 1	Planned Hours: 8
Mode of Instruction (check all that apply) <input checked="" type="checkbox"/> Classroom <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Online <input type="checkbox"/> Self-Study Provided by: Inland NW AGC Apprenticeship	
Description of element/course: Covers basic financial skills and stresses the importance of money management. Highlights include credit management, money saving tips, and how to establish an emergency fund. Also discusses how credit scores work and how they relate to financial decisions by lending institutions.	