



# State Apprenticeship Standards for the **Steamfitting Industry**

Heating, Piping, Air Conditioning,  
Refrigeration, Temperature Control, and Service

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**STATE OF WISCONSIN**  
**DWD**  
Department of Workforce Development



**STATE APPRENTICESHIP STANDARDS  
FOR THE  
STEAMFITTING INDUSTRY  
HEATING, PIPING, AIR CONDITIONING, REFRIGERATION,  
TEMPERATURE CONTROL & SERVICE INDUSTRY**

**FOREWORD**

The steamfitting industry through long, practical experience has developed standards of workmanship that are recognized everywhere. To protect these standards, a sound and uniform system of apprenticeship training for oncoming craftsmen is recognized as essential by contractors and journey workers alike.

The increased skills and versatility needed today by journey level Steamfitters require as never before, the thorough all-around training and experience provided through apprenticeship as conducted under modern methods. To meet this need, the State Steamfitters Apprenticeship Committee having been duly designated as advisory to the Department of Workforce Development, has revised and amplified the apprenticeship standards in the trade for the guidance of contractors and journey workers throughout Wisconsin.

These standards are consistent with the Wisconsin Apprenticeship Law and the Wisconsin Apprenticeship Manual. It is hoped that all those concerned with the development of craftsmanship in the trade will make full use of these up-to-date standards in setting up, conducting, and improving apprenticeship programs.



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## I. Definitions

- A. **Apprentice** means any person who enters into an apprentice contract with the department and with a sponsor or an apprenticeship committee acting as an agent of the sponsor. Steamfitters (including refrigeration, HVAC, service work) apprentices are persons covered by an Apprentice Contract under Chapter 106 approved by the Wisconsin Department of Workforce Development, Bureau of Apprenticeship Standards.
- B. **Apprentice Contract** means any contract or agreement of service, express or implied, between an apprentice, the department, and a sponsor or an apprenticeship committee acting as the agent of a sponsor whereby an apprentice is to receive directly from or through the apprentice's employer, in consideration for the apprentice's services in whole or in part, instruction in any trade, craft, or business.
- C. **Apprenticeship Committee** means a joint apprenticeship committee or a non-joint apprenticeship committee designated by a sponsor to administer an apprenticeship program.
- D. **Assignment** means the initial placement of an apprentice with an employer.
- E. **Bureau of Apprenticeship Standards (BAS)** is the agency within the Department of Workforce Development charged with the oversight responsibilities of Wisconsin's apprenticeship program.
- F. **Cancellation** means the termination of the registration or approval status of a program at the request of the sponsor or termination of an Apprentice contract at the request of any party to the contract.
- G. **Certificate of Completion** means the department has determined that an apprentice has successfully completed an apprenticeship shown by a certificate of completion.
- H. **Certificate of Registration** means the acceptance and recording of such program by the department as meeting the basic standards and requirements of the department for approval of such program for federal and state purposes, as shown by a certificate of registration.
- I. **Competency** means the attainment of manual, mechanical or technical skills and knowledge, as specified by an occupational standard and demonstrated by an appropriate written and hands-on proficiency measurement.
- J. **Completion rate** means the percentage of an apprenticeship cohort who receives a certificate of apprenticeship completion within 1 year of the projected completion date. An apprenticeship cohort is the group of individual apprentices registered to a specific program during a 1 year time frame, except that a cohort does not include the apprentices whose apprenticeship agreement has been cancelled during the probationary period or who have transferred.
- K. **Department** means the Department of Workforce Development (DWD) which is the state registration agency for the purposes of 29 CFR 29. The Bureau of Apprenticeship Standards is part of the Department of Workforce Development.

- L. **Electronic media** means media that utilize electronics or electromechanical energy for the end user (audience) to access the content; and includes, but is not limited to, electronic storage media, transmission media, the Internet, extranet, lease lines, dial-up lines, private networks, and the physical movement of removable/transportable electronic media and/or interactive distance learning.
- M. **Employee** – A person who is employed as journey level Steamfitter/Pipefitter, or Refrigeration Service.
- N. **Employer** – Any Steamfitting (including refrigeration, HVAC, service or temperature control work) contractor who is engaged in the heating, piping and air conditioning business qualified to employ apprentices as outlined in Section VII of these standards.
- O. **Interim credential** means a credential issued by the department, upon request of the appropriate sponsor, as certification of competency attainment by an apprentice.
- P. **Joint Apprenticeship Committee** means an apprenticeship committee that consists of an equal number of representatives of employers and of representatives of employees who are represented by a collective bargaining agent.
- Q. **Journeyworker** means a worker who has attained a level of skill, abilities and competencies recognized within an industry as having mastered the skills and competencies required for the occupation and/or hold a State of Wisconsin certification.
- R. **Local apprenticeship committee** means an apprenticeship committee to which the department has delegated the authority to act under Administrative Code DWD 295.02 and 295.03.
- S. **Nonjoint apprenticeship committee** means an apprenticeship committee that consists of representatives of employers, but not of representatives of employees who are represented by a collective bargaining agent.
- T. **Quality Assurance Assessment** means a comprehensive review conducted by the department regarding all aspects of an apprenticeship program's performance (see section VI –Local Apprenticeship Committee Operations).
- U. **Reassignment** means the assignment of an apprentice from one employer to another within the same apprenticeship program.
- V. **Registration of an apprentice contract** means the acceptance and recording of an apprentice contract by the department as evidence of the apprentice's participation in a particular registered apprenticeship program.
- W. **Related instruction** an organized and systematic form of instruction designed to provide the apprentice with the knowledge of the theoretical and technical subjects related to the apprentice's occupation. Such instruction may be given in a classroom, through occupational or industrial courses, or by correspondence courses of equivalent value, electronic media, or other forms of self-study approved by the department.
- X. **Sponsor** means any local committee operating an apprenticeship program and in whose name the apprenticeship program is approved by the Bureau of Apprenticeship Standards.



- Y. **Sponsor Training Center** an education source that provides related instruction as approved by the Bureau of Apprenticeship Standards
- Z. **State Committee** - The Wisconsin State Steamfitting Trades Apprenticeship Advisory Committee is advisory to the Department of Workforce Development and the Bureau of Apprenticeship Standards on matters of apprenticeship and to the Wisconsin Technical College System (WTCS) on matters of related instruction for apprentices.

**AA. Supervision:**

- (1) **Direct:** means to assume the responsibility of an activity of an apprentice and its results by providing oversight and guidance at the site where the activity is being conducted.
- (2) **General:** means to assume the responsibility of an activity of an apprentice and its results by providing quick and easy access to a journey worker or qualified individual without being present at the site where the activity is being conducted, i.e., immediate access through telephone, radio, computer or other available technology.

- BB. **Transfer** means a shift of apprenticeship registration from one program to another where there is agreement between the apprentice and the affected apprenticeship committees or program sponsors.
- CC. **Unassignment** means the temporary interruption of an apprentice contract.
- DD. **Wisconsin Apprenticeship Advisory Council** means the council created by WI Stats. 15.227 (13).
- EE. **Wisconsin Technical College System** is a publicly funded system of colleges subject to Chapter 38 of the WI State Statutes and Technical College System Administrative Rules.

**II. Personnel of the State Steamfitting Apprenticeship Advisory Committee**

This Committee shall be composed of no less than ten (10) nor more than thirty (30) members. The intention is to have fair representation from local committees on the state committee. The Bureau of Apprenticeship Standards (BAS) will ensure that all areas of the state are properly represented on each state trade committee.

- A. Employer representative names will include nominees submitted to the Bureau of Apprenticeship Standards (BAS) by associations or organizations who are training Steamfitter apprentices at the local level.
- B. Employee representative names will include nominees submitted to BAS by the Wisconsin Pipe Trades Association.
- C. Members will serve for a term of three years and may be re-nominated for further terms. Committee memberships will be staggered to maintain continuity in functioning.

- (1) Members must be currently and actively participating in the trade and are required to attend at least 75 percent of the meetings over the term of their appointment.
  - (2) Members must represent organizations that are actively involved with training apprentices at the local level; or
  - (3) Be involved in the development of emerging trades; or
  - (4) Have been involved in the training of apprentices in the last two years.
- D. Exceptions to these requirements can be made by the BAS in order to expand female and minority participation on committees.
- E. The BAS may also designate consultant members to serve as non-voting members, as needed. The WTCS representatives, industry apprenticeship coordinators, instructors and other interested parties in the apprenticeship program may advise and consult with state committee, but they are not allowed to serve as voting members
- F. The State Steamfitting Apprenticeship Advisory Committee generally meets at least twice each year and their membership includes equal numbers of employer and employee members who have been nominated by organizations involved at the local committee level
- G. The committee operates on a consensus based decision-making process. This means that there may be concerns after discussion, but the committee members may consent to the proposal anyway and allow it to be adopted. Therefore, reaching consensus does not assume that everyone must be in complete agreement, but that all members can live with the decision. When the committee cannot reach consensus, the BAS will make the final decision.
- H. The Bureau may remove a person from membership on a committee for one or more of the following reasons:
- (1) Failure to attend at least 75% of the committee meetings over the term of the appointment, unless excused by the Bureau for good cause.
  - (2) Failure to meet the membership requirements under paragraph II C unless an exception is granted under II D as noted above.
  - (3) Violation of any state apprenticeship statute, rule or standard.
- I. Vacancies may be filled, or representatives changed in term, at the request of the appropriate association.

### **III. Duties of the State Steamfitting Apprenticeship Advisory Committee**

- A. Recommend/advise on policy and/or program changes in the trade.
- B. Formulate minimum state standards (and review them every five years) for the trade and make recommendations on changes to the Bureau including:
- (1) the period of training
  - (2) minimum work process requirements
  - (3) related instruction
  - (4) probation period
  - (5) employer requirements to serve as a trainer
  - (6) journey level worker/apprentice ratios

- (7) apprentice reviews
  - (8) apprentice selection process (AA/EEO requirements)
  - (9) local committee review-assist local committees and/or sponsors in developing selection procedures which are bias free and which ensure minorities and women are considered
- C. Recommend curriculum, related instruction and delivery service requirements for the trade to the Bureau and the Wisconsin Technical College System (WTCS).
  - D. Assume statewide leadership for the purpose of improving conditions and expanding the number of employers using apprentices in the trade.
  - E. Support the state program of training for apprentices.
  - F. Prepare a policy for the trade on proficiency assessment/testing (for work experience and course work) to be utilized by local committees in determining apprenticeship credit for previous experience/education.
  - G. Review and monitor local committee activity levels (including biennial reports) and recommend changes in AA/EEO operations where appropriate.
  - H. The committee will follow these operational guidelines:
    - (1) Meet at least a minimum of two times a year.
    - (2) Elect of the Committee co-chairs; an employer representative and an employee representative.
    - (3) Conduct meetings in conformity with Wisconsin open meeting law.
    - (4) A meeting quorum exists when at least two employer and two employee representatives are present.
    - (5) Official meeting minutes will be prepared by the Bureau of Apprenticeship standards.
    - (6) Committee recommendations will be made by consensus.

#### **IV. Personnel of Local Committees**

Local Apprenticeship Committees, either joint or non-joint, are created much the same as State Steamfitting Apprenticeship Advisory Committee. Each local committee has a minimum of four (4) voting members, generally comprised of employer and employee members.

- A. The BAS requests nominations from associations that have apprenticeship programs and employer/employee organizations that participate in the Wisconsin apprenticeship program.
- B. Joint apprenticeship committees have equal numbers of employer and employee representatives.
- C. Employer members must currently work at the trade or represent those who employ skilled workers of the trade and have trained apprentices in the last five years. Local employer organizations representing contractors who employ journeyworkers and apprentices at the trade will nominate employer members.

- D. Employee members must be active journeyworkers or represent active journeyworkers. Local Labor Organizations representing skilled workers in the area will nominate employee members.
- E. Exceptions to these requirements can be made by the BAS in order to expand female and minority participation on the committees.
- F. In order for a Local Apprenticeship Committee to be recognized as advisory to the BAS, each member must be designated by the BAS. After nominations have been submitted, the BAS will finalize the committee membership. Before membership is finalized, the BAS will ensure that females and minorities are represented on the committee, where they are employed in the skilled workforce. Membership is finalized with a letter from the BAS confirming the committee membership to committee members. No person is considered a committee member until they have been so designated.
- G. Each Local Apprenticeship Committee is assigned a geographical area by the BAS. The committee may be expected to advise the BAS and the WTCS on all apprenticeship matters in the trades covered by the committee. The assignment of the area may be based on several factors such as; the union jurisdiction, WTCS boundaries, population centers, or others.
- H. Members will serve for a term of three years and may be re-nominated for further terms. Terms will be staggered to ensure that continuity of the committee is maintained.
- I. Members must attend at least 75% of the meetings over the term of their appointment, unless excused for good cause.
- J. The Bureau may remove a person from membership on a committee for one or more of the following reasons:
  - (1) Failure to attend at least 75% of the committee meetings over the term of the appointment, unless excused by the Bureau for good cause.
  - (2) Failure to meet the membership requirements under paragraph IV G, unless an exception is granted under IV E as noted above.
  - (3) Violation of any state apprenticeship statute, rule or standard

#### **V. Local Apprenticeship Committee Functions and Duties**

- A. Ensure that employer and apprentice applications are processed in a timely manner. Ensure that apprentices are properly registered in conformity with Wisconsin Apprenticeship regulations.
- B. Establish Local Standards. The local committee must use the State Steamfitting Committee Standards for their trade as a guide in the operation of the apprenticeship program in their area. Provisions drawn from local collective bargaining agreements must conform to the minimum requirements of the State Steamfitting Standards.
- C. Development and implement selection procedure and an affirmative action plan to meet the requirements of DWD 295 and 296 and the Wisconsin Apprenticeship Manual. The committee processes applications for apprenticeship and this method must be spelled out clearly in the selection

procedures. The selection procedures must also be available for applicants to review.

- D. Recommend to the BAS credit for previous experience/education in conformity with State Steamfitting Apprenticeship Advisory Committee policy and procedures.
- E. A committee will have a written procedure for assisting apprentices in their area who are out of work, so that the best possible effort can be made to get them back to work.
- F. Approve employers for apprenticeship training purposes in accordance with State Steamfitting Apprenticeship Advisory Committee Standards (and para. VIII E below). All employer applications for apprentices must be reviewed by the committee. Ensure that employers provide apprentices with the required range of work process experience and safeguard the training of apprentices on the job.
- G. Maintain records of each apprentice in the committee's program. The local committee must review and ensure that adequate classroom and work/on-the-job records are kept for each apprentice.
  - (1) Each committee must have a record of applications, active apprentices, apprentice progress records, affirmative action efforts, transfers, etc.
  - (2) Local committees must have a system for receiving progress records from each apprentice. These records must be received regularly.
  - (3) Local committees must get regular reports on each apprentice's grades and attendance from the approved training provider.
  - (4) Review and make sure that adequate classroom and on-the-job records are kept for apprentices. All reviews should be in writing. All apprentice records must be maintained for five years after the last apprentice action.
- H. Review and evaluate apprentice classroom and on-the-job performance on a regular basis, as recommended by the State Steamfitting Apprenticeship Advisory Committee, (at least annually and a minimum of two times during the term of the Apprentice Contract, in person) and before recommending completion to the Bureau. All reviews must be in writing.
- I. Review the status and progress of every apprentice prior to the end of the probationary period and recommend any appropriate action to the employer. Apprentices should be interviewed in person by the committee at least twice during their apprenticeship, with one review prior to the end of their probationary period so their progress at work and at school can be discussed with the apprentice. Employers and supervisors should also be interviewed, so that all viewpoints are available to the committee.
- J. Encourage parties to Apprentice Contracts to bring their complaints before the committee. If either the employer or the apprentice has a grievance about their program, it is important to bring this matter before the committee first, rather than make an official complaint directly to the BAS. If the committee does not make a satisfactory adjustment, then the complainant must be told how to appeal in writing to the BAS.
- K. Local committee standards will have a consistent transfer policy that addresses the transfer of apprentices from one sponsor to another. The committee must

assure that transfer forms are properly signed by all parties and forwarded to the BAS promptly.

- L. Recommend to the BAS, credit for previous experience and education in conformity with State Steamfitting Apprenticeship Advisory Committee policy and procedures.
  - (1) Credit should be granted prior to the end of the probationary period, or at least as soon as a proper evaluation can be made of the credit request.
  - (2) Apprentices may be granted credit for previous work or school experience.
  - (3) Such credit should only reflect actual work time that relates directly to the trade or school time relating directly to the trade related instruction.
  - (4) Any party to the Apprentice Contract may forward a request for credit to the committee (apprentice, employer, the BAS or the committee). Third parties may supply supporting information to the committee for consideration in the determination process.
- M. If the BAS approves the committee's recommendation of credit and such credit advances the apprentice to a higher wage, then that wage must apply. All credit recommendations of the committee, approved or denied must be made in writing and forwarded to the BAS. Work and school time credit served, under a prior Wisconsin apprentice contract in the same trade, must be credited at once, unless a written reason is presented and approved by the BAS.
- N. Recommend completions of apprenticeship to the BAS. The committee should review each apprentice's record and make a recommendation to the BAS on the apprentice's eligibility to be completed.
- O. Make reports and recommendations to the BAS and the State Steamfitting Apprenticeship Advisory Committee. Each area committee must keep the BAS and the State Steamfitting Apprenticeship Advisory Committee informed of their activities and their suggestions for program improvements.
- P. Keep minutes of each committee meeting and submit copies to the BAS. The committee must submit a copy of the minutes of each of its meetings. Failure to submit copies of the minutes could result in the termination of the committee's designation and deregistration of the committee.
- Q. Advise and inform the public on projected apprentice openings, where applicable.
- R. Advise the BAS and technical colleges or provider of related instruction on all matters pertaining to related instruction in the committee area. Assist in securing related instruction with the state and/or area WTCS districts.
- S. Respond to surveys and questionnaires sent by the BAS regarding information on participating employers, apprentices, meetings held, and AA/EEO progress.
- T. Meet in conformity with the Wisconsin Open Meeting Law.
- U. Actively participate in statewide trade or industry marketing and apprenticeship promotion. Report back to the respective nominating organizations and keep them fully informed and active in promoting the local program.

- V. Recommend modifications to ratios in state standards to help meet area workforce needs in conformity with bargaining agreements, where applicable.

## **VI. Local Apprenticeship Committee Operations**

- A. The committee elects its own officers.
- B. The committee is responsible for recording the committee's proceedings.
- C. All meetings must be called and conducted in accordance with Wisconsin's Open Meeting Law.
- D. Notice of all meetings of the committee must be provided to all committee members, the Bureau Representative, and the WTCS School Representative, when appropriate.
- E. A meeting may be called by either a committee member, the Bureau Representative or the WTCS Representative.
- F. The Bureau, State or Local Committees may request interested organizations to have a representative serve as a Consultant. Consultants may include: WI Technical College representatives; Industry Apprenticeship Coordinators; Apprenticeship Instructors; Employer and Employee Organization representatives; appropriate Community Based organizations. Consultants, guests, Bureau Representatives and WTCS Representatives are not permitted to vote; only designated members are permitted to vote.
- G. Local committees will meet at least two times each year or as prescribed by the State Steamfitting Apprenticeship Advisory Committee.
  - (1) Joint Apprenticeship Committees. A meeting quorum exists when at least one employer and one employee representative is present. In the case of unequal representation, the members present shall vote for those absent from their group.
  - (2) When holding a local committee meeting, it is suggested that committees follow a formal procedure similar to the following:
    - i. Call to order by presiding officer. This meeting is called to order in accordance with Wisconsin's Open Meetings Law.
    - ii. Roll Call of Committee members.
    - iii. Review and approval of minutes from last meeting.
    - iv. Reports.
    - v. Old Business.
    - vi. New business.
    - vii. Affirmative Action report.
    - viii. Communications and miscellaneous matters.
    - ix. Next meeting date.
    - x. Discussion.
    - xi. Closed meeting portion (motion to close the meeting must be made in accordance with the Wisconsin Opening Meetings Law). Include time.
    - xii. Adjournment.

## H. Compliance Reviews

BAS staff will conduct periodic Compliance Reviews of local committees to determine whether local committees are complying with their approved Affirmative action Plan and Selection Procedures.

BAS evaluates the committee performance in accordance with chapter 7 of the Wisconsin Apprenticeship Manual in administering the committee's apprenticeship program to determine that all requirements are being satisfactorily met and that any necessary corrective action is being implemented.

## I. Liability of Local Committees

- (1) Should the committee or any member be subject to any legal action as a result of recommendations made in the conduct of Local Apprenticeship Committee business, the BAS will, if it has concurred with the recommendations, assume responsibility for representing the committee or committee member.
- (2) The committee or member must have clearly indicated in writing to all affected parties that the recommendation was appealable to the BAS. Failure to do this may abrogate BAS's responsibility.

## **VII. Minimum Qualifications of Apprentices**

Applicants for apprenticeship shall:

- A. be as stated in the state employment laws
- B. at the minimum, show proof of holding a G.E.D. Certificate or High School Equivalency Certificate
- C. meet the following minimum scores on either the Accuplacer or ACT. Scores from both assessments are valid for five years from the test date.

Accuplacer		ACT
Arithmetic	66	17 in Math
Elementary Algebra	33	
Reading	74	17

## **VIII. Minimum Qualifications of Employers**

- A. An employer to be eligible to have an apprentice must be financially reliable and must have had at least one (1) year's experience as a Heating, Piping and Air Conditioning contractor, be a regular employer of employees. Furthermore, the employer can provide reasonably diverse work experience for the apprentice.
- B. The employer who has at least one (1) journey worker should furnish sufficient proof that the contractor has enough work so that the hiring of an apprentice will



not displace the journey worker. Apprentices may only be employed when employment conditions warrant.

- C. All employer applications for apprentices must be reviewed by the committee. The committee recommends approval or disapproval of each employer's request for an apprentice.
  - (1) The committee recommends approval or disapproval of each employer's request for an apprentice. This recommendation must be made within 40 days.
  - (2) If approval is recommended, the BAS may proceed with the preparation of the contracts.
  - (3) If, however, the committee recommends denial, the employer must be notified in writing of the committee's reasons and a copy of the notice must be provided to the BAS.
  - (4) The committee must also inform the employer how to appeal if the employer disagrees with the recommendation.
  - (5) All appeals must be investigated by the BAS and will be reviewed with the committee before the BAS makes its final disposition of the application.
- D. The employer must agree to the provisions of these Standards of apprenticeship. It is the employer's responsibility to maintain safe working conditions for the apprentice.
- E. The employer must provide evidence of and must maintain Unemployment Insurance and Worker's Compensation coverage throughout the term of an Apprentice Contract.

**IX. Ratio of Apprentices to Journeyworkers**

- A. Any qualified employer may employ one apprentice if one journey worker Steamfitter (and/or refrigeration, HVAC, service worker) is regularly employed; two apprentices if the employer regularly employs three Steamfitters; three apprentices if the employer regularly employs five Steamfitters; and four apprentices if the employer regularly employs seven Steamfitters. Thereafter, the employer may employ one additional apprentice for every two journey workers.

APR	JW
2	3
3	5
4	7
5	9
6	11
7	13
Etc.	Etc.

- B. These ratios may be modified by Local Committees to meet changing economic conditions in the particular area. All modifications are subject to the approval of the State Committee and the Bureau.

## **X. Apprentice Contracts**

All apprentices shall have a contract in compliance DWD 295.07 with a local committee. Apprentices are assigned to an employer by a letter of assignment.

- A. Each copy of the contract will contain the term of the apprenticeship, the approved Trade Information (Exhibit A), the credit recommended (if any) and any special provisions.
- B. Individuals that make application and are registered through the application of Administrative Rule DWD 295.10 shall be registered directly with a local committee.

## **XI. Apprenticeship Terms**

See Trade Information (Exhibit A). The term of Steamfitting apprenticeships shall be at least five years of no less than 8000 hours.

- A. Competency-Based Approach. Local committees who choose to employ a competency-based approach to apprenticeship must comply with the following requirements:
  - 1) The occupation must be recognized and approved as a competency-based apprenticeable occupation. If the program is not approved by US DOL as a competency based program, the sponsor must consult with the BAS to determine if it is suitable as a competency based program.
  - 2) The on-the-job learning component of the apprenticeship program must be identified in the program standards.
  - 3) The related instruction component of the competency-based approach must comply with all of the provisions of DWD 295 as referenced in the Wisconsin Apprenticeship Manual.
  - 4) Program sponsors must identify within the program standards the required competencies that must be mastered within the program standards, and the required competencies that must be mastered by the apprentice during their apprenticeship.
  - 5) Successful completion of the term of apprenticeship will require that the apprentice demonstrate mastery of identified competencies.
  - 6) Demonstration of the acquisition of the identified competencies must be determined by both written and hands-on proficiency evaluations.
  - 7) All testing and evaluation of the identified competencies must occur in a controlled learning environment that permits accurate and verifiable results by a qualified proctor.
  - 8) Program sponsors must identify and document the methods and means used to qualify testing and evaluation proctors.

## B. Time Based Approach

The time based approach is the traditional term of apprenticeship and the term is stated in years, months or hours or a combination of thereof. This approach measures an individual skill through completion of at least 8,000 hours of on-the-job learning as described in a work process schedule.

## C. Hybrid Approach

Local committee's that choose to use the hybrid approach to apprenticeship measures an individual's skills through a combination of hours of on-the-job learning and successful completion of competency as described in a work process schedule. The program must comply with the guidelines for the competency-based portion of the apprentice's term of apprenticeship.

## **XII. Probationary Period:**

The probationary period is 25% of the term of the contract but in no case shall it exceed 12 calendar months.. There shall only be one probationary period for each Apprentice Contract, regardless of the number of employers with whom the apprentice works during that period.

During the probationary period, the apprentice or local committee may void the contract by written notice to the Bureau.

- A. After expiration of the probationary period there must be good cause provided the Bureau for the cancellation of the Apprentice Contract.
- B. Employers may request cancellation of their Letter of Assignment with an apprentice during the probationary period upon written notice to the local committee. However, the local committee may choose to place the apprentice with another employer.

## **XIII. Related Instruction Attendance**

Apprentices will attend the appropriate Technical College or other approved training provider and successfully complete the prescribed course materials for the trade for no less than 500 hours of paid related instruction, unless otherwise approved by the Bureau and the State Committee.

- A. Apprentices must attend school during the thirty day period following a lay-off. School attendance during this 30 day period shall be paid for by the most recent employer, as an obligation originally assumed by the employer unless the apprentice has been terminated for violation of the employer's written work rules.
- B. Apprentices shall attend unpaid related instruction on their own time and take such subjects as the local committee requires as stated in Special Provisions.

## **XIV. Schedule of Work Processes**

See Trade Information (Exhibit A) attached or as approved by the State Steamfitting Apprenticeship Advisory Committee.

#### **XV. Conditions of Work**

- A. Apprentices will have the same hours of employment and be subject to the same conditions for overtime as the journeyworkers with whom they work. They shall work under the direct supervision of a journeyworker on all work normally performed by such journeyworkers.
- B. Hours of employment shall not conflict with the hours specified for related instruction or with Federal or State regulations.
- C. During the first three (3) years, Steamfitter (Construction) apprentices must work under the direct supervision of an appropriate journey worker on all work normally performed by such journey workers. During the first two (2) years, Steamfitter (Service/Refrigeration) apprentices must work under the direct supervision of an appropriate journey worker, on all work normally performed by such journey workers.
- D. During the fourth (4) and fifth (5) years, Steamfitter (Construction) apprentices may work under general supervision for those jobs which they are trained and competent provided they are current in educational requirements.
- E. During the third, fourth and fifth years, Steamfitter (Service/Refrigeration) apprentices may work under general supervision for those jobs for which they are trained and competent, provided they are current in educational requirements.
- F. Under no circumstances shall apprentices supervise other apprentices

#### **XVI. Continuity of Employment**

- A. It shall be the duty of the Local Committee, insofar as possible, to provide the apprentice with reasonable continuous employment by the reassignment of laid off apprentices to other employers who have work.
- B. When it is shown in the apprentice reviews that an employer cannot provide the required instruction in the trade, the local committee may reassign the apprentice to another employer, subject to the approval of the BAS.

#### **XVII. Evaluation and Completion of Apprentices**

- A. Local committees are expected to require apprentices and their employers to keep the committee informed of the progress of each apprentice. This information must be provided so the committee can review the apprentices' progress at least once annually.
  - (1) The first such review of an apprentice shall be done in person prior to the expiration of the probationary period.
  - (2) The BAS, the employer of record, and/or the applicable area local apprenticeship committee must be provided with timely reports on

attendance, progress, and grades on each apprentice. Local committees shall make arrangements with the school that provides related instruction to receive grades and/or progress reports on each apprentice so these records can become a part of each apprentice's review.

- B. Local committees are required to maintain a current "apprentice work record" system so that the committee can get feedback from each apprentice as to the type of work experience they are receiving and the hours of school they are attending. These records are required to be submitted at least monthly.
- C. Local committees shall maintain an apprentice evaluation system so that the committee can get regular feedback from the employers on each apprentice's progress. These reports should be received prior to each apprentice's review.
- D. A summary of each apprentice's review shall be made in writing to the apprentice and where deficiencies exist, a clear defined goal set for correction of the deficiencies and an indication of the penalty (i.e. cancellation) if the goals are not met.
- E. Within a reasonable period of time before expiration of the apprenticeship, the local committee shall review the apprentice in person by a final review or examination.
  - (1) If the apprentice successfully completes such review or examination, the committee shall recommend to the BAS that a Certificate of Completion be granted by the BAS.
  - (2) If the apprentice fails to meet all provisions of their Apprentice Contract, the final review and/or examination, the committee may recommend to the BAS, that the apprentice's apprenticeship should be extended for a period of time, not to exceed one calendar year.

### **XVIII. Cancellation of Apprentice Contracts**

The State Committee and the BAS require that each local committee maintain clear records to substantiate a recommendation for cancellation of an apprenticeship. When a party to the contract requests cancellation of the contract, the BAS will send a 20-day Intent to Cancel Notice to all parties to the contract. The notice states that the contract will be cancelled 20 calendar days from the date of the Notice, unless the BAS receives written objection from any party within the 20 day period.

- A. Employers are required to provide the local committee with written cause for terminating an apprentice (to include reductions in force) to the local committee.
- B. Apprentices may request cancellation of the program by providing a written request to the local committee.
- C. A local committee may request cancellation of the Apprentice Contract after the probationary period has expired by making such request with reasons to the BAS and Committee in writing.
- D. The BAS will consult the local committee before taking final cancellation action.

- E. The local committee may recommend cancellation to the BAS of an Apprentice Contract on its own motion, after proper notice to the parties of the Apprentice Contract.

### **XIX. Right of Appeal**

In the case of a dispute between the apprentice and the employer with regard to an Apprentice Contract, either party may appeal in writing to the local committee to adjust the matter. Either party thereafter may appeal the recommendations of the committee to the Bureau regarding any part of the Apprentice Contract.

- A. In cases of a problem or dispute involving a matter of policy or local standards, the matter shall be referred to the State Steamfitting Apprenticeship Advisory Committee for review.
- B. If the State committee cannot satisfactorily resolve the matter, it will provide the BAS with its recommendations.
- C. All applicants, employers or apprentices have the right of appeal to the BAS on any recommendation or action taken by the local committee. The advisory status of a local committee shall include the following statement in their disciplinary actions or denial correspondence:

"Should you feel the recommendation or action taken by the local Apprenticeship Committee to be contrary to the area apprenticeship standards, you have the right to appeal in writing to the Department of Workforce Development, Bureau of Apprenticeship Standards, stating the specific section of said standards or addendum to same which you feel was violated."

- D. Any party to the contract may file an appeal in writing within 20 days of the final decision. When an appeal is received the BAS Director will review the appeal and issue a written determination within 40 days of the appeal.
- E. If requested in writing within ten days by one of the parties, the Bureau Director's decision may be appealed in writing the DWD Legal Counsel. The DWD Legal Counsel will review the case and issue a final determination within ten days.
- F. Right to Hearing. A dissatisfied party may file a written request with the BAS or the DWD Legal Counsel for a formal administrative hearing to review the reasonableness of a DWD order as outlined in Chapter 5 of the Wisconsin Apprenticeship Manual. DWD shall respond to a request for an administrative hearing within 20 days. DWD has the discretion to determine whether or not it will hold a hearing. DWD's final decision is reviewable in Circuit Court.
- G. Items not Subject to a Hearing. Actions of the employer that involve the employment relationship and not the apprenticeship program are not subject to a hearing. Violations of employer work rules may not be subject to a hearing contingent upon a review that the employer is not illegally discriminating in its administration of apprenticeship policy.

### **XX. Modification of Standards**

- A. Local standards may be modified by the local committee if such modifications are in conformance with these State Standards and approved by the BAS.
- B. The minimum requirements set forth in these Standards shall not be altered by virtue of any collective bargaining agreement.

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 Exhibit A - Program Provisions

**Approved: November 1, 2012**

**TERM OF APPRENTICESHIP:** The term of apprenticeship shall be Time-based, which has been established to be 5 years of no less than 8000 hours. Hours of labor shall be the same as established for other skilled employees in the trade.

**PROBATIONARY PERIOD:** The probationary period shall be the first 12 months of employment, but in no case shall it exceed twelve calendar months. During the probationary period, this contract may be cancelled by the apprentice or the sponsor upon written notice to the Department, without adverse impact on the sponsor.

**SCHOOL ATTENDANCE:** The apprentice shall attend the Wisconsin Technical College System or other approved training provider, as assigned, for paid related instruction four hours per week or the equivalent and satisfactorily complete the prescribed course material for a minimum of 500 hours, unless otherwise approved by the Department. The employer must pay the apprentice for attended related instruction hours at the same rate per hour as for services performed.

**WORK PROCESS SCHEDULE:** In order to obtain well-rounded training and thereby qualify as a skilled worker in the trade, the apprentice shall have experience and training in the following areas. This instruction and experience shall include the following operations but not necessarily in the sequence given. Time spent on specific operations need not be continuous.

<u>Work Process Description</u>	<u>Approximate Hours</u> (Min            -            Max)
SYSTEMS PIPING INSTALLATIONS:	2500
Interpret gages, meters and charts to install/repair/replace piping installations	
Cut, mechanically join and bend steel, brass, stainless, chrome, copper and plastic pipe and tubing	
Hang pipe with hangers, supports, anchors, etc.	
Install/Maintain expansion joints, adaptors & transition fittings	
Perform pipe fabrication	
Install/Maintain piping, tubing and accessories	
Install/Maintain bearings, bushings, shafts, seals, o-rings, belts, sheaves/pulleys, valves and couplings	
Install/Maintain radiant heating systems	
Install/Maintain hydronic systems	
Install/Maintain heat pump systems	
Install/Maintain steam systems	
Install/Maintain natural gas lines	
Install/Maintain air conditioning/refrigeration systems	
Install pneumatic, electronic and industrial instrumentation controls	
Install/Maintain flow, temperature, pressure and infrared switches and sensors	
Install/Maintain operational and safety controls	
EQUIPMENT INSTALLATION:	1500
Install/Maintain boilers, furnaces, pumps, gas regulators, valves, heat exchangers and electric pumps	
Install/Maintain steam traps, regulators, coils, vacuum breakers, flash (vent) tanks & condensate returns	
Install/Maintain air conditioning/refrigeration chillers, cooling towers, pumps, compressors, valves, metering devices and filter/dryers	



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Install/Maintain equipment venting  
Install fans and air handling equipment

MECHANICAL SKILLS: 1500

Perform alignment and balancing  
Operate lifting and moving equipment  
Install rigging  
Perform rigging  
Perform general maintenance on heating, air conditioning, refrigeration and ventilation systems  
Perform pressure, hydronic and hydrostatic tests on systems

WELDING, SOLDERING, BRAZING AND FUSION: 1500

Perform soldering, brazing, fusion and SMAW/GTAW welding  
Perform oxyacetylene torch cutting  
Perform plasma torch cutting

MISCELLANEOUS: 500

Interpret blueprints, symbols, specifications and schematic drawings  
Perform applied mathematical functions  
Perform applied scientific functions  
Demonstrate knowledge of basic electrical functions  
Demonstrate knowledge of basic and mechanical safety principles  
Demonstrate knowledge of OSHA regulations  
Apply Environmental Protection Agency (EPA) regulations  
Apply Department of Transportation (DOT) regulations  
Demonstrate knowledge of high-pressure safety  
Perform record keeping  
Display professionalism  
Communicate with customers  
Job related skills not listed elsewhere

Paid Related Instruction 500

TOTAL 8000

The above schedule is to include all operations and such other work as is customary in the trade.

**MINIMUM COMPENSATION TO BE PAID:**

DWD 295.05 Apprentice Wages. (1) An apprentice contract wage scale is deemed adequate when, during the term of training, it averages 60% of the current journeyman rate.

The apprentice contract should provide for a graduated scale progressing in periods as approved by the Bureau of Apprenticeship Standards. A wage progression will be established for local apprenticeship standards that meets the terms of DWD 295.05 and has the approval of the Bureau.

Base skilled wage rate N/A per hour.

If at any time the base skilled wage rate rises or falls, the apprentice's wage shall be adjusted proportionately. The wage

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rate of apprentices employed in this trade and this firm shall be based on the base skilled wage rate stated above.

All apprentices are covered by State and Federal Wage and Hour Standard requirements. All apprentices shall be paid no less than the minimum wage established under regulations.

**CREDIT PROVISIONS:** The apprentice, granted credit at the start or during the term of the apprenticeship, shall be paid the wage rate of the pay period to which such credit advanced the apprentice.

**Work credit hours approved:** N/A

**School credit hours approved:**  
**Paid related instruction:** N/A

**Unpaid related instruction:** N/A

**Total credit hours to be applied to the term of the apprenticeship:** N/A

**SPECIAL PROVISIONS:**

The apprentice shall obtain certification in First Aid and CPR and a minimum of a 10-hour OSHA Safety Course during the first 12 months of the contract.

The apprentice shall attend unpaid related instruction on his/her own time and take such courses and for such period of time as the Local Committee requires.

An apprentice in his/her final year must participate in the Transition to Trainer Course.

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Exhibit A - Program Provisions

**Approved: November 1, 2012**

**TERM OF APPRENTICESHIP:** The term of apprenticeship shall be Time-based, which has been established to be 5 years of no less than 8000 hours. Hours of labor shall be the same as established for other skilled employees in the trade.

**PROBATIONARY PERIOD:** The probationary period shall be the first 12 months of employment, but in no case shall it exceed twelve calendar months. During the probationary period, this contract may be cancelled by the apprentice or the sponsor upon written notice to the Department, without adverse impact on the sponsor.

**SCHOOL ATTENDANCE:** The apprentice shall attend the Wisconsin Technical College System or other approved training provider, as assigned, for paid related instruction four hours per week or the equivalent and satisfactorily complete the prescribed course material for a minimum of 500 hours, unless otherwise approved by the Department. The employer must pay the apprentice for attended related instruction hours at the same rate per hour as for services performed.

**WORK PROCESS SCHEDULE:** In order to obtain well-rounded training and thereby qualify as a skilled worker in the trade, the apprentice shall have experience and training in the following areas. This instruction and experience shall include the following operations but not necessarily in the sequence given. Time spent on specific operations need not be continuous.

**Work Process Description**

**Approximate Hours**  
**(Min - Max)**

**INSTALL/STARTUP SYSTEMS & EQUIPMENT:**

1500

Interpret gages, meters, charts and computer software for startup  
Operate electrical/electronic test equipment for startup  
Install/Startup piping, tubing and accessories  
Install/Startup electrical power and control circuits  
Install/Startup motors, starters and circuit boards  
Startup various heating systems  
Startup pumps and electric heat systems  
Startup air conditioning/refrigeration systems  
Startup fans and air handling equipment

**TROUBLESHOOT/SERVICE SYSTEMS & EQUIPMENT:**

2500

Interpret gages, meters, charts and computer software for troubleshoot/service  
Troubleshoot/Service piping, tubing and accessories  
Troubleshoot/Service bearings, bushings, shafts, seals, o-rings, belts, sheaves/pulleys and couplings  
Troubleshoot/Service various heating systems  
Troubleshoot/Service pumps and electric heat systems  
Troubleshoot/Service air conditioning/refrigeration systems  
Troubleshoot/Service fans and air handling equipment  
Troubleshoot/Repair leaks  
Evacuate and measure vacuum levels  
Perform refrigerant recovery  
Charge refrigeration systems

**INSTALL/TROUBLESHOOT SERVICE CONTROLS:**

1500

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Interpret gages, meters, charts and computer software for controls  
 Demonstrate knowledge of basic electrical functions  
 Operate electrical/electronic test equipment for controls  
 Install/Troubleshoot/Service piping, tubing and accessories for controls  
 Install/Troubleshoot/Service electrical power and control circuits  
 Install/Troubleshoot/Service motors, starters and circuit boards  
 Install/Troubleshoot/Service pneumatic, electronic and industrial instrumentation controls  
 Install/Troubleshoot/Service DDC systems  
 Install/Troubleshoot/Service starters, contactors, relays, switches and sensors  
 Install/Troubleshoot/Service operational and safety controls

MECHANICAL SKILLS: 1500

Cut, mechanically join & bend steel, brass, stainless, chrome, copper and plastic pipe & tubing  
 Operate lifting and moving equipment  
 Install rigging  
 Perform rigging  
 Perform soldering, brazing, fusion and SMAW/GTAW welding

MISCELLANEOUS: 500

Perform applied mathematical functions  
 Perform applied scientific functions  
 Demonstrate knowledge of basic and mechanical safety principles  
 Demonstrate knowledge of OSHA regulations  
 Apply Environmental Protection Agency (EPA) regulations  
 Apply Department of Transportation (DOT) regulations  
 Demonstrate knowledge of high-pressure safety  
 Perform record keeping  
 Display professionalism  
 Communicate with customers  
 Job related skills not listed elsewhere

Paid Related Instruction 500

TOTAL 8000

The above schedule is to include all operations and such other work as is customary in the trade.

**MINIMUM COMPENSATION TO BE PAID:**

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The apprentice contract should provide for a graduated scale progressing in periods as approved by the Bureau of Apprenticeship Standards. A wage progression will be established for local apprenticeship standards that meets the terms of DWD 295.05 and has the approval of the Bureau.

Base skilled wage rate N/A per hour.

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**SPECIAL PROVISIONS:**

The apprentice shall obtain certification in First Aid and CPR and a minimum of a 10-hour OSHA Safety Course during the first 12 months of the contract.

An apprentice in his/her final year must participate in the Transition to Trainer Course.

The apprentice shall attend unpaid related instruction on his/her own time and take such subjects and for such period of time as the Local Committee requires.

The apprentice must obtain a universal CFC card prior to completion or as directed by the Local Committee.