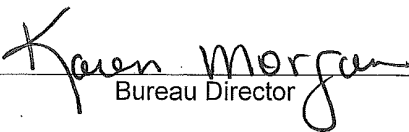


DEPARTMENT OF WORKFORCE DEVELOPMENT  
BUREAU OF APPRENTICESHIP STANDARDS

MADISON, WISCONSIN

STATE APPRENTICESHIP STANDARDS  
FOR THE  
INDUSTRIAL ELECTRICAL & INSTRUMENTATION TRADES

  
Bureau Director

  
Co-chair

  
Co-chair

APPROVED AND ADOPTED

November 10, 2011



## FOREWORD

These Apprenticeship and Training Standards for the Industrial Electrical, Instrumentation, Maintenance Technician and Electrical & Instrumentation Trades are sponsored by the State Electrical & Instrumentation Apprenticeship Advisory Committee.

The increased skills and versatility needed today by the trades require, as never before, the thorough all-around training and experience provided through apprenticeship as conducted under modern methods.

To meet this need State Electrical & Instrumentation Apprenticeship Advisory Committee was implemented by the Department of Workforce Development, Bureau of Apprenticeship Standards. Members have been nominated by the respective organizations representing these occupations and have been designated as advisory to the Department in matters relating to the Electrical and Instrumentation Industry.

These Standards have been adopted as a guide and the minimum standard for employers, employees, and Technical Colleges throughout Wisconsin.

These standards are consistent with the Wisconsin Apprenticeship Law, Wis. Stats. Chapter 106, Wis. Admin Code DWD Chapter 295, Wis. Admin Code DWD 296 and with the Wisconsin Apprenticeship Manual as revised.



## FINAL SECTION ALIGNMENT

- I. Definitions
- II. Administration
- III. Personnel of State Industrial Electrical & Instrumentation Apprenticeship Advisory Committee
- IV. Duties of State Industrial Electrical & Instrumentation Apprenticeship Advisory Committee
- V. Personnel of Local (In-Plant) Committees
- VI. Duties of Local (In-Plant) Committees
- VII. Minimum Qualifications of Apprentice Applicants
- VIII. Minimum Qualifications of Employers
- IX. Ratio of Apprentices to Journeyworkers
- X. Apprentice Contracts
- XI. Apprenticeship Terms
- XII. Probationary Period
- XIII. Related Instruction Attendance
- XIV. Schedule of Work Processes
- XV. Conditions of Work
- XVI. Continuity of Employment
- XVII. Evaluation and Completion of Apprentices
- XVIII. Appeal Procedures/Right of Appeal
- XIX. Modification of Standards



## 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.
- 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. Bureau of Apprenticeship Standards (BAS) is the agency within the Department of Workforce Development charged with the oversight responsibilities of Wisconsin's apprenticeship program. BAS approves all Apprentice Contracts in accordance with Chapter 106 of the Wisconsin Statutes.
- D. 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.
- E. 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.
- F. 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.
- G. 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.
- H. 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.
- I. Employer/Sponsor means any person, firm or corporation regularly engaged in the hiring or training of apprentices that are qualified to train apprentices.
- J. Interim credential means a credential issued by the department, upon request of the appropriate sponsor, as certification of competency attainment by an apprentice.
- K. 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.

- L. Local apprenticeship committee means an in-plant committee.
- M. Quality Assurance Assessment means a comprehensive review conducted by the department regarding all aspects of an apprenticeship program's performance.
- N. Qualified Individual means an individual who has the skills, knowledge and practical hands-on experience equivalent to an up-to-date journey level person in the Industrial Electrical & Instrumentation trades. He/she shall also be trained in, and be familiar with, any electrical safety-related work practices.
- O. 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.
- P. Related instruction means 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.
- Q. Sponsor means any employer operating an apprenticeship program and in whose name the apprenticeship program is approved by the Bureau of Apprenticeship Standards.
- R. State Committee - The Wisconsin State Industrial Electrical & Instrumentation 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.
- S. 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.
- T. Unassignment means the temporary interruption of an apprentice contract.
- U. 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. Administration

The administration of these Standards shall be the responsibility of the sponsor (employer). The employer is responsible for the apprentices' instruction and experience as outlined in the schedule of work processes, for the attendance at related instruction classes, and for notifying the Bureau of Apprenticeship Standards of all actions as required by the Standards.

## III. Personnel of the State Electrical & Instrumental 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 employers and local



(inplant) 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 BAS by employers training apprentices in the Industrial Electrical & Instrumentation trades.
- B. Employee representative names will include nominees submitted to BAS by labor organizations, collective bargaining agents, or by in-plant local committees. In cases where there is no in –plant local committees, nominees will be solicited from employers.
- 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, unless excused by BAS for good cause.
  - (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 Electrical & Instrumentation 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. Members must attend at least 75% of the meetings over the term of their appointment, unless excused by the Bureau for good cause.
- I. 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 III D unless an exception is granted as noted above.
- (3) Violation of any state apprenticeship statute, rule or standard.

J. Vacancies may be filled, or representatives changed in term, at the request of the appropriate association.

#### IV. Duties of the State Electrical & Instrumentation 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
- 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 (in-plant) committees in determining apprenticeship credit for previous experience/education.
- G. Review and monitor local (in-plant) committee activity levels (including biennial reports) and recommend changes in AA/EEO operations where appropriate.
- H. Assist local (in-plant) committees to work out their programmatic and administrative problems.
- I. The state 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.

## V. Personnel of Local (In-Plant) Committees

Purpose: To oversee the training of apprentices and ensure that the conditions of the Apprentice Contract are being satisfied by all parties. Every apprentice will have access to and be responsible to a local (in-plant) committee.

Each local (in-plant) committee will have a minimum of four voting members; two employer representatives and two from the skilled workforce. If members are added to a committee there must be equal employer and employee representation, unless otherwise specified by a collective bargaining agreement. It is recommended that the in-plant committee meet quarterly.

An exception may be made to this requirement for employers who have less than five apprentices.

Multi-trade local committees will be authorized provided that at least one member of the committee is a member of the apprentice's trade that is being reviewed. If a member of an apprentice's trade is not on the local committee, an advisor from that trade may be used on an ad hoc basis.

- A. The employer will nominate the employer members who have been involved in the training of apprentices or supervision of skilled workers in the past five years.
- B. Employee members will be nominated as specified in collective bargaining agreements or in their absence, local (in-plant) committees and/or employers will nominate employee members who are skilled workers in the trade or represent active journey level workers.
- C. All local (in-plant) committee rosters will be submitted to BAS.
- D. Multi-trade local committees are authorized provided that at least one member of the committee is a member of the apprentice's trade that is being reviewed.
- E. Exceptions to these requirements can be made by the BAS in order to expand female and minority participation on the committees.
- F. The committee may be expected to advise the BAS and the WTCS on all apprenticeship matters in the trades covered by the committee.
- G. Members must attend at least 75% of the meetings over the term of their appointment, unless excused for good cause.
- 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 for good cause.

- (2) Failure to meet the membership requirements unless an exception is granted under IV E as noted above.
- (3) Violation of any state apprenticeship statute, rule or standard

#### VI. Duties of Local (In-Plant) Committees

- A. Ensure that apprentices get the required range of work process experience and safeguard the training of apprentices on the job.
- B. Review the status and progress of every apprentice prior to the end of the probationary period and recommend any appropriate action to the employer.
- C. Review and make sure that adequate classroom and on-the-job learning (OJL) records are kept for apprentices. All reviews must be in writing.
- D. Review and evaluate classroom and on-the-job performance on a regular basis, as recommended by the state committee, (at least annually in person) and before recommending completion to the Bureau.
- E. Recommend credit for previous experience/education in conformity with BAS policy and procedures.
- F. Advise the Bureau and local technical colleges on all matters pertaining to related instruction in the employer's area. Assist in securing related instruction with the state, local technical college or other provider of related instruction.
- G. Respond to surveys and questionnaires sent by the Bureau regarding information on participating employers, apprentices, meetings held and AA/EEO for the apprenticeship program.
- H. Conform to the state committee written meeting procedure requirements, if any.
- I. Encourage parties to an Apprentice Contract to bring issues before the local (in-plant) committee. If not resolved, provide recommendations to the Bureau on its resolution.
- J. Take part in statewide trade or industry marketing and apprenticeship promotion.
- K. Recommend modifications to ratios in state standards to help meet workforce needs in conformity with bargaining agreements, when applicable.
- L. Keep minutes and make available to the local Apprenticeship Training Representatives of the BAS, if necessary.
- M. Recommend completion of the apprentice to the Bureau.

## VII. Minimum Qualifications of Apprentice Applicants

- A. High school graduate or equivalency.
- B. Not less than 18 years of age.
- C. Must be physically able to perform the work of the trade with reasonable accommodations and without hazard to themselves or others. Applicants may be required to furnish a statement of physical condition from a physician at the time of job offer. Applicants may be required to undergo drug or alcohol testing at the time of selection as an apprentice. The applicant may be required to take and pass a color recognition test.
- D. Must be able to work in the United States.

## VIII. Minimum Qualifications of Employers

- A. The employer must ensure that apprentices are trained in the core work processes identified for this trade and employ a full time journey worker, qualified supervisor or other individual to supervise and/or train the apprentice.
- B. The qualifications of the 'qualified individual' above will be determined on a case-by-case basis for a new employer only.

## IX. Ratio of Apprentices to Journeyworkers

- A. In order to assure adequate supervision and instruction of all apprentices on-the-job, the minimum ratio of apprentices to journeyworkers shall be one (1) apprentice for the shop for one (1) journey worker or other "qualified individual" as specified in VIII. B. above. Only one apprentice can be trained under this exception. Thereafter, for additional apprentices, the employer must have a full time journey-worker.
- B. Apprentices shall be under the close direction (quick and easy access to communicate about a job) of a journey worker or a "qualified individual" as specified in IX. B above during the first two years of the apprenticeship program.
  - (1) Throughout the course of the training period, the apprentice shall work under the direction of as many different journey workers and/or "qualified individuals" as possible.
  - (2) Apprentices may work under indirect supervision during the last two (2) years of their apprenticeship for those jobs that they have been trained and qualified.
  - (3) Indirect supervision is defined as having phone access to a journey worker or a "qualified individual."
  - (4) Under no circumstances shall apprentices supervise other apprentices.

## X. Apprentice Contracts

- A. All apprentices shall have a contract in compliance with DWD 295.07, signed by the apprentice and the employer.
- B. 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.

## XI. Apprenticeship Terms

The term of industrial electrician shall be a minimum of four (4) years of not less than 8,320 hours.

The term of the Electrical & Instrumental Technician shall be five (5) years but not less than 10,400 hours.

The term of the Instrument Mechanic shall be four (4) years of not less than 8,320 hours.

The term of the Maintenance Technician shall be five (5) years but not less than 10,000 hours.

Employers have the option of choosing a longer term of apprenticeship and/or pursue implementing competency or hybrid apprentice programs in addition to time-based. Hybrid and competency based programs must be reviewed by the State Industrial Electrical & Instrumentation Apprenticeship Advisory Committee and approved by the BAS.

- 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 cannot exceed 25 percent of the length of the program, or one year, whichever is shorter.

- A. During the probationary period, the apprentice or program sponsor may void the contract by written notice to the Bureau.
- B. After expiration of the probationary period there must be good cause provided the Bureau for the cancellation of the Apprentice Contract.

### XIII. Related Instruction Attendance

- A. The apprentice shall attend school and satisfactorily complete the course of instruction recommended by the State Industrial Electrical & Instrumentation Apprenticeship Advisory Committee for the specific applicable trade.
- B. The apprentice shall be paid the same rate for regular school attendance as for work on the job. Apprentices are paid 'straight time' rate for paid school hours. An employer is not required to pay overtime (time and one-half) to apprentices while receiving paid related instruction, unless such requirements are contained in an applicable collective bargaining agreement.
- C. Apprentices shall attend unpaid related instruction on their own time and take such subjects as the employer requires as stated in the Exhibit A.

#### XIV. Schedule of Work Processes

See Trade Information (Exhibit A) attached or as approved by the State Industrial Electrical & Instrumentation Apprenticeship Advisory Committee.

#### XV. Conditions of Work

- A. Apprentices will have the same hours of employment as the journeyworker or the employer under whose supervision the apprentice is employed.
- B. Hours of employment shall not conflict with the hours specified for related instruction or with Federal or State regulations.

#### XVI. Continuity of Employment

When an apprentice is temporarily laid off because of business conditions, the apprentice shall be offered reinstatement before any additional apprentices are employed. An apprentice, suspended for this reason, when reinstated, shall complete the time set forth in the training schedule before the next period may be started.

#### XVII. Evaluation and Completion of Apprentices

##### A. Record Keeping

Sponsors are required to keep adequate records in order to maintain their apprenticeship program; including selection records, records relative to the operation of the program; such as, job assignment, layoff or termination records, rates of pay, etc, and an apprentice evaluation system so that the employer can properly evaluate the apprentice's performance.

All records must be maintained for a period of five years from the date of last activity.

- B. Upon successful completion of the apprenticeship program, the sponsor shall request the Bureau to issue the apprentice a Certificate of Completion of Apprenticeship. The Certificate shall be signed by the sponsor and the Director, Bureau of Apprenticeship Standards.

#### XVIII. Appeal Procedures/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 BAS.

- A. In cases of a problem or dispute involving a matter of policy, the matter shall be referred to the State Industrial Electrical & Instrumentation Apprenticeship Advisory Committee for review. If the State committee cannot satisfactorily resolve the matter, it will provide the Bureau with its recommendations.



- B. For apprentice applicants who are already employees of the firm, initial appeals should be made in accordance with grievance procedures to either the employer of the local union. If no satisfaction is received from this/these resources, the individual may appeal to BAS. For those applicants who are not an employee of the firm, the initial appeal should be made directly to the BAS. If the decision not to accept the applicant is made by the employer, not the in-plant committee, the appeal should also be made directly to the BAS.
- C. All applicants, employers or apprentices have the right of appeal to the Bureau 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, P. O. Box 7972, Madison, Wisconsin 53707, 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 calendar 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.

#### XIX Modification of Standards

- A. These Standards may be modified at any time by the State Industrial Electrical & Instrumentation Apprenticeship Advisory Committee.
- B. The minimum requirements set forth in these Standards shall not be altered by virtue of any collective bargaining agreement.

