

**BULLETIN 2002 - 12**

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**PURPOSE:** The purpose of this Bulletin is to inform staff of the revised National Guideline Standards, Affirmative Action Plan and Selection Procedures for the Operating Engineers National Joint Apprenticeship and Training Committee for the Stationary Engineer occupation.

**BACKGROUND:** These National Guideline Standards submitted by the Operating Engineers National Joint Apprenticeship and Training Committee were certified by the OATELS Administrator on July 17, 2002. These National Guideline Standards are a model for developing local apprenticeship programs registered with the Bureau of Apprenticeship and Training or State Apprenticeship Agency/Council for the occupation of Stationary Engineer.

A copy of the standards is attached for your information.

If you have any additional questions please contact (202) 693-3813.

**ACTION:** OATELS/BAT staff should familiarize themselves with the attached National Guidelines for Apprenticeship Standards.

Attachment

**NOTE:** This Bulletin is being sent via Electronic Mail (e-mail).

**REVISED**

**NATIONAL  
GUIDELINES FOR  
APPRENTICESHIP STANDARDS**

developed by the

**OPERATING ENGINEERS  
NATIONAL JOINT APPRENTICESHIP  
AND TRAINING COMMITTEE**

for the occupation of

**STATIONARY ENGINEER**

**DEVELOPED IN COOPERATION WITH THE  
UNITED STATES DEPARTMENT OF LABOR  
BUREAU OF APPRENTICESHIP AND TRAINING**

**APPROVED AND CERTIFIED BY THE  
UNITED STATES DEPARTMENT OF LABOR  
OFFICE OF APPRENTICESHIP TRAINING, EMPLOYER AND LABOR SERVICES**

**BY: /s/ ANTHONY SWOOPE  
ANTHONY SWOOPE, ADMINISTRATOR  
OFFICE OF APPRENTICESHIP TRAINING, EMPLOYER AND LABOR SERVICES**

**CERTIFICATION DATE: July 17, 2002**

**CERTIFICATION NUMBER: C-83460**

## **FOREWORD**

The Operating Engineers National Joint Apprenticeship and Training Committee (NJATC) recognizes the need for structured training programs to maintain the high level of skill and competence demanded in the occupation of Stationary Engineer.

Registered apprenticeships are the most practical and sound training system available to meet that need, to develop individuals into skilled journeyworkers, and to ensure industry an adequate supply of skilled workers. Meaningful industry driven apprenticeships produce competent skilled craftworkers, insuring the continued availability of skilled workers in the industry.

Title 29, Code of Federal Regulations (CFR) Part 29, outlines the requirements for registration of acceptable apprenticeship programs for Federal purposes, and sets forth labor standards that safeguard the welfare of apprentices. Such registration may be by the Bureau of Apprenticeship and Training (the Bureau), U. S. Department of Labor, or by a State Apprenticeship Agency recognized by the Bureau as the appropriate body in that State for approval of local apprenticeship programs for Federal purposes. Title 29, CFR Part 30 sets forth the requirements for equal employment opportunity in apprenticeship to which all registered apprenticeship programs must adhere.

The purpose of these National Guideline Standards is to provide policy and guidance to local Joint Apprenticeship Committees (JACs) in developing Standards of Apprenticeship for local approval and registration. These National Guideline Standards, developed by the NJATC, are certified by the Office of Apprenticeship Training, Employer and Labor Services, U. S. Department of Labor, as substantially conforming to the requirements of Title 29, CFR Parts 29 and 30. State Apprenticeship Councils recognized by the Bureau to register local programs, and/or local laws and regulations, may impose additional requirements that must be addressed in the local apprenticeship standards.

Local Standards of Apprenticeship must be developed and registered by each local JAC that undertakes to carry out an apprenticeship training program. The local Standards of Apprenticeship will be the local JACs written plan outlining all terms and conditions for the recruitment, selection, employment, training, and supervision of apprentices as subscribed to by the local JAC, and must meet all the requirements of the local Registration Agency.

### **THE NATIONAL JOINT APPRENTICESHIP AND TRAINING COMMITTEE (NJATC)**

The NJATC is charged with development of National Guidelines for Apprenticeship Standards and having them certified by the U. S. Department of Labor, Office of Apprenticeship Training, Employer and Labor Services for use by local JACs.

The duties of the NJATC include:

Assist and advise the local JACs on accepted practices for furthering sound apprenticeship procedures at the local level.

Act in advisory capacity to local JACs, and to interpret the meaning and purpose of any clauses contained within the National Guidelines for Apprenticeship Standards.

Meet on call of the Chairperson, to review the progress on apprenticeship in the industry.

Review and approve local apprenticeship standards for conformity with the National Guidelines for Apprenticeship Standards.

Settle appeals of decisions rendered by the local JACs.

In general, to encourage and enforce the adoption and application at the local level of sound apprenticeship practices.

### **DEVELOPMENT OF AFFIRMATIVE ACTION PLAN AND SELECTION PROCEDURES**

Equal employment opportunity is required of every registered apprenticeship program. Such requirements apply to the recruitment, selection, employment, and training of apprentices throughout their apprenticeship.

Those programs with five or more apprentices, or where there is a likelihood of five or more apprentices, must have a written Affirmative Action Plan and Selection Procedure that is approved by the Registration Agency as part of the Standards of Apprenticeship.

A sample Affirmative Action Plan and Selection Procedure are attached.

Representatives of the Registration Agency are available to assist the local JAC in developing its Standards of Apprenticeship, Affirmative Action Plan and Selection Procedures using the sample provided. Once developed, the Standards of Apprenticeship, as well as the Affirmative Action Plan and Selection Procedures must be submitted to the Registration Agency for approval and registration.

### **OFFICIAL ADOPTION OF NATIONAL GUIDELINES FOR APPRENTICESHIP STANDARDS:**

The Operating Engineers National Joint Apprenticeship and Training Committee, hereby officially adopts these National Guidelines for Apprenticeship Standards on this 3<sup>rd</sup> day of July, 2002.

/s/ FRANK HANLEY  
FRANK HANLEY  
**GENERAL PRESIDENT**  
International Union of Operating  
Engineers, AFL-CIO

/s/ THOMAS DAPP  
THOMAS DAPP  
**CHAIRPERSON**  
Operating Engineers National  
Joint Apprenticeship and  
Training Committee

**SAMPLE  
STANDARDS OF APPRENTICESHIP**

**DEVELOPED BY  
*(NAME OF LOCAL JAC)***

**FOR THE OCCUPATION OF**

**STATIONARY ENGINEER**

**APPROVED BY  
*(REGISTRATION AGENCY)***

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## **FOREWORD**

Experience has demonstrated that a practical and sound method of preparing for skilled craftsmanship is through planned apprenticeship providing for employment and training under actual job conditions by skilled workers and at wages commensurate with the apprentice's skill. In addition, the apprentice's knowledge and understanding of the trade is broadened through participation in approved courses of related training.

The (Insert the name of local JAC) has established these Standards of Apprenticeship outlining all the terms and conditions for the qualifications, recruitment, selection, employment and training of apprentices in the occupation(s) listed in these Standards.

## DEFINITIONS

**APPRENTICE:** Any individual employed by a person or organization meeting the qualifications described in the Standards of Apprenticeship who has signed an Apprenticeship Agreement with the local Joint Apprenticeship Committee (JAC) providing for training and related instruction under the Standards, and who is registered with the Registration Agency.

**APPRENTICESHIP AGREEMENT:** The written agreement between the apprentice and the local JAC setting forth the responsibilities and obligations of all parties to the Agreement with respect to the Apprentice's employment and training under the Standards. Each Apprenticeship Agreement must be registered with the Registration Agency.

**CERTIFICATE OF COMPLETION:** The Certificate of Completion issued by the Registration Agency to those registered apprentices certified and documented as successfully completing the apprentice training requirements outlined in the Standards of Apprenticeship.

**COLLECTIVE BARGAINING AGREEMENT:** An agreement between an employer and a group of employees that defines their terms and conditions of employment.

**DICTIONARY OF OCCUPATIONAL TITLES (DOT):** Provides basic occupational information including job definitions, detailed tasks to be performed, and a number indicating a range of time to prepare for average performance in the occupation. The last update to the DOT was completed in 1991. Much of the data in the DOT was collected much earlier than that, during the 1970's, which does not accommodate the needs of today's labor market. An Advisory Panel on the DOT was convened in 1990 and published a report in 1993 that laid the basis for the development of the Occupational Information Network, or O\*NET.

**EMPLOYER:** Any person or organization employing an apprentice.

**JOINT APPRENTICESHIP COMMITTEE (JAC):** The JAC is comprised of an equal number of representatives appointed by the Union and by the Employer in whose name these Standards of Apprenticeship will be registered.

**JOURNEYWORKER:** An individual who has documented sufficient skills and knowledge of a trade, craft or occupation, either through formal apprenticeship or through practical on-the-job experience, and formal training. This individual is recognized by their employer as being fully qualified to perform the work of the trade, craft or occupation.

**O\*NET-SOC CODE:** The Occupational Information Network (O\*NET) codes and titles are based on the new Standard Occupational Classification (SOC) system mandated by the Federal Office of Management and Budget for use in collecting statistical information on occupations. The O\*NET classification, **which replaces the DOT**, uses an 8-digit O\*NET-SOC code. Use of the SOC classification as a basis for the O\*NET codes ensures that O\*NET information can be readily linked to labor market information such as occupational employment and wage data at the national, State, and local levels.



**REGISTERED APPRENTICESHIP INFORMATION SYSTEM (RAIS):** The Federal system, which provides for the automated collection, retention, updating, retrieval and summarization of information related to apprentices and apprenticeship programs.

**PROGRAM SPONSOR:** The local JAC in whose name the Standards of Apprenticeship will be registered, and which will have the full responsibility for administration and operation of the apprenticeship program.

**REGISTRATION AGENCY/COUNCIL:** (Insert name of Registration Agency, either the U. S. Department of Labor, Bureau of Apprenticeship and Training, or your State Apprenticeship Agency recognized by the Bureau)

**STANDARDS OF APPRENTICESHIP:** This entire document including all appendices and attachments hereto, and any future modifications or additions approved by the Registration Agency.

**UNION:** The International Union of Operating Engineers.

## **SECTION I. - PROGRAM ADMINISTRATION**

The local JAC in whose name these Standards of Apprenticeship are registered shall be composed of an equal number of representatives appointed by the employer and the union. The local JAC shall be responsible for:

- a. Establishing and registering Standards of Apprenticeship with the Registration Agency, and ensuring adherence to them.
- b. Establishing and maintaining rules and requirements governing the policies, administration, supervision, and training of apprentices. The rules and requirements shall be in conformity with the Collective Bargaining Agreement (CBA) and with these Apprenticeship Standards. A copy of such rules and requirements, and any changes to them, shall be provided to the Registration Agency and the apprentice.
- c. Determining the need for new apprentices, including when apprenticeship openings will be available and selecting apprentices in accordance with the Selection Procedures attached hereto and made a part of the Apprenticeship Standards.
- d. Initiating and signing all Apprenticeship Agreements for apprentices and forwarding them to the Registration Agency for approval and registration. In addition, the local JAC will notify the Registration Agency and other appropriate parties of the cancellation, suspension, extension, reinstatement, or completion of apprentices.
- e. Arranging for apprentices to get the required on-the-job training and related instruction that will provide them with the diversity of training delineated in the attached trade schedule and related instruction outline.
- f. Monitoring and evaluating apprentices' progress, including the review of apprentices' records to insure apprentices are fulfilling their responsibilities under the program. The local JAC will review, approve and document all apprentice actions including hours, content, and progress of training on-the-job and in related instruction; step progressions; disciplinary actions; poor evaluations; corrective action plans; successful completions; cancellations; and any other performance or attendance-related issues.
- g. Hearing and resolving complaints regarding Apprenticeship Agreement violations.
- h. Certifying the apprentice has completed both the required on-the-job training (OJT) and related instruction, and submitting such certification to the Registration Agency with request for issuance of the Certificate of Completion.
- i. Annually reviewing the Affirmative Action Plan, good faith efforts, and Selection Procedures, updating the Affirmative Action Plan and goals/timetables, and modifying the Affirmative Action Plan and Selection Procedures as a result of the review, when appropriate. Such review will include an analysis of the Local JAC's success in meeting its goals, the good faith efforts made, and the impact each element of the Affirmative Action Plan and Selection Procedure had on meeting its goal.
- j. Maintaining all records relating to the recruitment, selection, employment and training of apprentices for a minimum of five years from the last date of action.

- k. Transfer apprentices when one employer is unable to provide diversified training or fulfill the obligations under the apprenticeship agreement to another employer under the same program, with consent of all parties to the Agreement.

**SECTION II. - EQUAL OPPORTUNITY PLEDGE - 29.5(b)(20)**

The recruitment, selection, employment, and training of apprentices during their apprenticeship, shall be without discrimination because of race, color, religion, national origin, or sex. The local JAC will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30, as amended (insert applicable state regulations here, if applicable).

**SECTION III. - AFFIRMATIVE ACTION PLAN - 29.5(b)**

If the Employer employs five or more apprentices, the local JAC will adopt an Affirmative Action Plan and Selection Procedures as required under Title 29, CFR Part 30. A sample Affirmative Action Plan and Selection procedure are included in this document for your guidance in development of local Plans and Procedures and is attached as Attachment C.

**SECTION IV. - QUALIFICATIONS FOR APPRENTICESHIP - 29.5(b)(10)**

Applicants shall meet the following minimum qualifications:

- A. Age

Apprentices must be not less than 18 years of age.

**EXAMPLES:**

- B. Education

A high school diploma or GED equivalency is required to apply to the apprenticeship program, either one or the other is acceptable.

An applicant who is seventeen (17) years of age and is participating in a school-to-work program or equivalent and who otherwise meets all qualifications may be rated and ranked and placed on the list of eligible applicants. Such an applicant must be eighteen (18) years of age prior to being accepted into the apprenticeship program.

Applicants must submit a copy of their DD-214 to verify military training and/or experience if they are a veteran and wish to receive consideration for such training/experience.

- C. Physical

Shall be physically capable of performing the essential functions of the apprenticeship program without posing a direct threat to the health and safety of the individual or others.

Qualified applicants may be subject to a physical examination or drug screening or both on acceptance into the program and prior to being employed. The cost of the examination and/or drug screening shall be the responsibility of the local JAC or the Employer.

#### **SECTION V. - APPRENTICESHIP AGREEMENT - 29.5(b)(11)**

After an applicant for apprenticeship has been selected, but before employment as an apprentice or enrollment in related instruction, the apprentice shall be covered by a written apprenticeship agreement (Attachment B) signed by the local JAC and the apprentice and approved by and registered with the Registration Agency. Such agreement shall contain a statement making the terms and conditions of these standards a part of the agreement as though expressly written therein. A copy of each Agreement shall be furnished to the apprentice, the local JAC, the Registration Agency, the Employer, the Union and the Veterans Agency (if applicable).

Prior to signing the Apprenticeship Agreement, each selected applicant shall be given an opportunity to read and review these Standards, the local JAC's written rules and policies, the Apprenticeship Agreement and the sections of the CBA that pertain to apprenticeship.

The Registration Agency will be advised promptly of the execution of each Apprenticeship Agreement and will be given all the information required for registering the apprentice.

#### **SECTION VI. - SELECTION OF APPRENTICES**

Selection into the apprenticeship program will be in accordance with the selection procedures made a part of these standards. (Attachment C)

#### **SECTION VII. - TERM OF APPRENTICESHIP - 29.5(b)(2)**

The term of the occupation shall be 4 years (and not less than an OJT attainment of 8,000 hours) supplemented by the 576 hours of related instruction as stated on the Trade Schedule (Attachment A).

#### **SECTION VIII. - APPRENTICE WAGE PROGRESSION - 29.5(b)(5)**

Apprentices shall be paid a progressively increasing schedule of wages during their apprenticeship based on the acquisition of increased skill and competence on the job and in related instruction. Before an apprentice is advanced to the next segment of training or to journeyworker status, the local JAC shall evaluate all progress to determine whether advancement has been earned by satisfactory OJT and in related instruction. In determining whether satisfactory progress has been made, the local JAC shall be guided by the work experience and related instruction records and reports.

The progressive wage schedule shall be an increasing percentage of the journeyworker wage rate as established in the CBA. The percentages that will be applied to the applicable journeyworker rate are shown on the attached Trade Schedule (Attachment A). In no case will the starting wages of apprentices be less than that required by any minimum wage law which may be applicable.

## **SECTION IX. - HOURS OF WORK**

Apprentices shall generally work the same hours as journeyworkers, except that no apprentice shall be allowed to work overtime if it interferes with attendance in related instruction classes. In the case of an emergency, an apprentice is expected to assist in resolving the emergency situation, even if such assistance may prohibit their attendance in related instruction.

Apprentices who do not complete the required hours of OJT during a given segment shall have the term of that segment extended until the required number of hours of training are accrued.

## **SECTION X. - RATIO OF APPRENTICES TO JOURNEYWORKERS - 29.5(b)(7)**

Consistent with proper supervision, training, safety, and continuity of employment throughout the apprenticeship, the ratio of apprentices to journeyworkers is established in the applicable CBA or as agreed to by the local JAC (Attachment A). This ratio should, however, provide the number of Stationary Engineer necessary for the future needs of the Employer.

## **SECTION XI. - RELATED INSTRUCTION - 29.5(b)(4)**

During each segment of training each apprentice is required to participate in classes in subjects related to the job as outlined in Attachment A. For each occupation, the recommended term of apprenticeship will include no less than 144 hours of related instruction for the Stationary Engineer for each year of the apprenticeship. Apprentices agree to take such subjects, as the local JAC deems advisable. The local JAC shall secure the instructional aids and equipment it deems necessary to provide quality instruction. In cities, towns or areas having no vocational school or other schools that can furnish related instruction, the apprentice shall be required to take a correspondence course in **(INSERT FIELD AS APPROPRIATE)** that meets the approval of the JAC and Registration Agency.

Apprentices (*local JAC inserts* will or will not) be paid for hours spent attending related instruction classes.

The local JAC shall inform each apprentice of the availability of college credit through the [insert the names of educational institutions which will offer college credit].

To the extent possible, related instruction shall be closely correlated with the practical experience and training received on the job. The local JAC shall monitor and document the apprentice=s progress in related instruction classes.

### **Sample Process:**

Any apprentice who is absent from related instruction classes, unless officially excused, shall satisfactorily complete all class work missed before being advanced to the next period of training. In cases of failure of an apprentice to fulfill the obligations regarding classroom (or on-the-job) training without due cause, the local JAC shall take appropriate disciplinary action and may terminate the Apprenticeship Agreement after due notice to the apprentice and opportunity for corrective action.

**SECTION XII. - WORK EXPERIENCE - 29.5(b)(3)**

During the apprenticeship the apprentice shall receive such OJT and related instruction in all phases of the occupation necessary to develop the skill and proficiency of a skilled journeyworker. The OJT shall be under the direction and guidance of a qualified journeyworker.

The Work Process (es) for each occupation are covered in the attached Trade Schedule(s) (Attachment A).

**SECTION XIII. - PROBATIONARY PERIOD - 29.5(b)(8), (b)(19)**

All applicants selected for apprenticeship shall serve a probationary period of not less than the first six months (approximately 1,000 hours) of OJT.

During the probationary period either the apprentice or the local JAC may terminate the Apprenticeship Agreement, without stated cause, by notifying the other party in writing. The records for each probationary apprentice shall be reviewed prior to the end of the probationary period. Records shall consist of periodic reports regarding progression made in both the OJT and related instruction, and any disciplinary action taken during the probationary period.

Any probationary apprentice considered to be unsatisfactory after a review of the probationary period shall have their Apprenticeship Agreement canceled before the expiration of the probationary period, by means of written notice to the apprentice and to the Registration Agency.

Any probationary apprentice evaluated as satisfactory after a review of the probationary period shall be given full credit for the probationary period and continue in the program.

After the probationary period the apprenticeship agreement may be canceled at the request of the apprentice, or may be suspended or canceled by the local JAC for reasonable cause after documented due notice to the apprentice and a reasonable opportunity for corrective action. In such cases, the local JAC will provide written notice to the apprentice and to the Registration Agency of the final action taken.

**SECTION XIV. - CREDIT FOR PREVIOUS EXPERIENCE - 29.5(b)(12)**

The local JAC may grant credit towards the term of apprenticeship to new apprentices who demonstrate previous acquisition of skills or knowledge equivalent to that which would be received under these Standards of Apprenticeship.

Apprentice applicants seeking credit for previous experience gained outside the supervision of the local JAC must submit the request at the time of application and furnish such records, affidavits, and demonstrate equipment skill level or mechanical skills within the probationary period in the apprenticeship program to substantiate the claim. An apprentice granted credit shall be advanced to the wage rate designated for the period to which such credit accrues.

The granting of advanced standing will be uniformly applied to all apprentices.

### **Sample Process:**

Applicants requesting such credit who are selected into the apprenticeship program shall start at the beginning wage rate. The request for credit will be evaluated and a determination made by the local JAC during the probationary period when actual on-the-job and related instruction performance can be examined. Prior to completion of the probationary period, the amount of credit to be awarded will be determined after review of the apprentice's previous work and training/education record, evaluation of the apprentice's performance, demonstrated skill and knowledge during the probationary period.

### **SECTION XV. - SUPERVISION OF APPRENTICES - 29.5(b)(14)**

The employer shall be responsible for the training of the apprentices on the job. The supervisor of the apprentice(s) (if one is available) designated by the employer shall, with the advice and assistance of the local JAC, be responsible for the apprentice's work assignment ensuring the apprentice is working under the supervision of a skilled journeyworker.

The local JAC training director or their designee will be required to submit semi-annual reports of progress of apprentices. The director will ensure evaluation of work performance and submittal of progress reports to the local JAC.

### **SECTION XVI. - SAFETY AND HEALTH TRAINING - 29.5(b)(9)**

All apprentices shall receive instruction in safe and healthful work practices both on-the-job and in related instruction that are in compliance with the Occupational Safety and Health Standards promulgated by the Secretary of Labor under Public Law 91-596, dated December 29, 1970, and subsequent amendments to the Public Law, or State Standards that have been found to be at least as effective as the Federal Standards.

They shall be taught that accident prevention is very largely a matter of education, vigilance, and cooperation and that they should strive at all times to conduct themselves in their work in such manner as to ensure their own safety and that of their fellow workers.

### **SECTION XVII. - TRANSFER OF TRAINING OBLIGATION 29.5(13)**

The local JAC may transfer an apprentice from one employer to another to provide continuous employment and to assure the apprentice a more complete on-the-job training experience in all aspects of the trade.

If an employer is unable to fulfill its training obligations due to lack of work or failure to conform to the Standards of Apprenticeship, the local JAC may, subject to the approval of the apprentice move the affected apprentice(s) to other participating employers, if possible.

### **SECTION XVIII. - RESPONSIBILITIES OF THE APPRENTICE "Example"**

Apprentices, having read the Standards formulated by the local JAC and signed an Agreement with the local JAC, agree to all the terms and conditions contained therein and agree to abide by the local JAC's rules and policies, including any amendments, serve such time, perform such manual training, and study such subjects as the Committee may deem necessary to become a skilled Stationary Engineer.

In signing the Apprenticeship Agreement, apprentices assume the following responsibilities and obligations under the apprenticeship program:

- A. Perform diligently and faithfully the work of the trade and other pertinent duties assigned by the local JAC and the employer in accordance with the provisions of the Standards.
- B. Respect the property of the employer and abide by the working rules and regulations of the employer, union and the local JAC.
- C. Attend and satisfactorily complete the required hours in the OJT and related instruction in subjects related to the trade as provided under these standards.
- D. Maintain and make available such records of OJT and related instruction as may be required by the local JAC.
- E. Develop and practice safe working habits and work in such a manner as to assure their personal safety and that of other workers.
- F. Work for the employer to whom assigned, unless their agreements are terminated by the local JAC.
- G. The apprentice will be provided with a copy of the written rules and policies and will sign an acknowledgment receipt of same. This procedure will be followed whenever revisions or modifications are made to the rules and policies
- H. Conduct themselves at all times in a creditable and ethical manner, realizing that much time, money, and effort are spent to afford them an opportunity to become a skilled craft worker.

**SECTION XIX. - CERTIFICATE OF COMPLETION - 29.5(b)(15)**

Upon satisfactory completion of the requirements of the apprenticeship program as established in these Standards, the local JAC shall so certify in writing to the Registration Agency and request that a Certificate of Completion of Apprenticeship be awarded to the completing apprentice(s). Such requests shall be accompanied by the appropriate documentation for both the OJT and the related instruction as may be required by the Registration Agency.

**SECTION XX. - AMENDMENTS OR MODIFICATIONS - 29.5(b)(17)**

These Standards of Apprenticeship may be amended or modified at any time by the local JAC provided that no amendment or modification adopted shall alter any Apprenticeship Agreement in force at the time without the consent of all parties to the Agreement. Such amendments or modifications shall be submitted to the Registration Agency for approval and registration prior to being placed in effect. A copy of each amendment or modification adopted will be furnished to each apprentice to whom the amendment or modification applies.



**SECTION XXI. - ADJUSTING DIFFERENCES/COMPLAINT PROCEDURE**

**– Title 29 CFR 29.5(b)(21), Title 29 CFR 29.30(11)**

The local JAC shall have full authority to supervise the enforcement of these Apprenticeship Standards. Its decision will be final and binding on the employer, the union, and the apprentice, unless otherwise noted below.

If an applicant or an apprentice believes an issue exists that adversely affects his/her participation in the apprenticeship program or violates the provisions of the Apprenticeship Agreement or Standards, relief may be sought through one or more of the following avenues, based on the nature of the issue:

**Title 29 CFR 29.5 (b)(21)**

- A. For issues regarding wages, hours, working conditions, and other issues covered by the CBA, apprentices may seek resolution through the applicable Grievance and Arbitration in the Articles of the CBA.
- B. The local JAC shall hear and resolve all complaints of violations concerning the Apprenticeship Agreement and the registered Apprenticeship Standards, for which written notification is received within fifteen (15) days of the violations. The local JAC shall make such rulings as it deems necessary in each individual case and within thirty (30) days of receiving the written notification. Either party to the Apprenticeship Agreement may consult with the Registration Agency for an interpretation of any provision of the Standards over which differences occur. The name and address of the appropriate authority to receive, process and make disposition of complaints is: (local JAC should insert applicable information).

**Title 29 CFR 30.11**

Any apprentice or applicant for apprenticeship who believes that he or she has been discriminated against on the basis of race, color, religion, national origin, or sex, with regard to apprenticeship or that the equal opportunity standards with respect to his or her selection have not been followed in the operation of an apprenticeship program, may personally or through an authorized representative, file a complaint with the U. S. Department of Labor or, at the apprentice or applicant=s election, with the private review body established by the program sponsor (if applicable).

The complaint shall be in writing and shall be signed by the complainant. It must include the name, address, and telephone number of the person allegedly discriminated against, the program sponsor involved, and a brief description of the circumstances of the failure to apply equal opportunity standards.

The complaint must be filed not later than one hundred eighty (180) days from the date of the alleged discrimination or specified failure to follow the equal opportunity standards, and, in the case of complaints filed directly with the review body designated by the program sponsor to review such complaints, any referral of such complaint by the complainant to the U.S. Department of Labor must occur within the time limitation stated above or thirty (30) days from the final decision of such review body, whichever is later. The time may be extended by the U.S. Department of Labor for good cause shown. Complaints of sexual harassment in the workplace may be filed and processed under Title 29, CFR Part 30, and the procedures as set forth above.

The local JAC will provide written notice of their complaint procedure to all applicants for apprenticeship and all apprentices.

#### **SECTION XXII. - RECORDS AND EXAMINATIONS - 29.5(b)(6)**

Each apprentice may be responsible for maintaining a record of their work experience/training on the job and in related instruction and for having this record verified by their supervisor at the end of each week. The apprentice shall authorize an effective release of their completed related instruction records from the local school authorities to the local JAC. The record cards and all data pertaining to the apprenticeship will be the property of the local JAC. This record will be included in each apprentice=s record file maintained by the local JAC.

Before each period of advancement, or at any other time when conditions warrant, the local JAC shall evaluate the apprentice=s record to determine whether he/she has made satisfactory progress. If an apprentice=s related instruction or on-the-job progress is found to be unsatisfactory, the local JAC may determine whether the apprentice will continue in a probationary status, or require the apprentice to repeat a process or series of processes before advancing to the next wage classification. In such cases, the local JAC will initiate a performance improvement plan with the apprentice.

Should it be found that the apprentice does not have the ability or desire to continue the training to become a journeyworker, the local JAC will, after the apprentice has been given adequate assistance and opportunity for corrective action, terminate the Apprenticeship Agreement.

Written records of progress evaluations and corrective and final actions shall be maintained by the local JAC. The Registration Agency will be notified of all registrations, credit granted, and suspensions for any reason, reinstatements, extensions, completions, and cancellations.

#### **SECTION XXIII. - MAINTENANCE OF RECORDS - 29.5(b)(22)**

The local JAC shall maintain for a period of no less than five (5) years from the date of last action, all records relating to apprentice applications (whether selected or not), the employment and training of apprentices, and any other information relevant to the operation of the program. This includes, but is not limited to, records on the recruitment, application and selection of apprentices, and records on the apprentice=s job assignments, promotions, demotions, layoffs, terminations, rate of pay, or other forms of compensation, hours of work and training, evaluations, and other relevant data. The records shall permit identification of minority and female (minority and non-minority) participants. The records shall be made available on request to the Registration Agency.

#### **SECTION XXIV. - NOTICE TO REGISTRATION AGENCY - 29.5(b)(18)**

The Registration Agency shall be notified promptly of all new apprentices to be registered, credit granted, suspensions for any reason, reinstatements, extensions, completions, and cancellations.

## **SECTION XXV. - CANCELLATION AND DEREGISTRATION - 29.5(b)(17)**

These Apprenticeship Standards will, upon adoption by the local JAC be submitted to the Registration Agency for approval. Such approval will be acquired before implementation of the program.

The local JAC reserves the right to discontinue at any time the apprenticeship program set forth herein. The Registration Agency shall be notified promptly of any decision to cancel the program.

Deregistration of these Standards of Apprenticeship may be initiated by the Registration Agency for failure of the local JAC to abide by the provisions herein. Such deregistration will be in accordance with the Registration Agency's regulations and procedures.

Within fifteen (15) days of cancellation of the apprenticeship program (whether voluntary or involuntary), the local JAC will notify each apprentice of the cancellation and the effect of same. This notification will conform to the requirements of Title 29, CFR Part 29.7.

## **SECTION XXVI. - COLLECTIVE BARGAINING AGREEMENT**

No provisions in these Standards of Apprenticeship shall be construed as permitting violation of any applicable, State or Federal laws or regulations.

Nothing in these Standards of Apprenticeship shall be interpreted as being inconsistent with existing or subsequent CBAs establishing higher standards, or meant to interfere with or abridge management's rights as vested to them under the CBA.

If an employer is unable to fulfill its training obligation due to lack of work or failure to conform to the Standards of Apprenticeship, the local JAC will move the affected apprentice(s) to other participating employers.

## **SECTION XXVII. - CONSULTANTS**

Advice and assistance in the successful operation of this apprenticeship program will be available at any time, upon request by the local JAC, from representatives of the Registration Agency.

**SECTION XXVIII. - OFFICIAL ADOPTION OF APPRENTICESHIP STANDARDS:**

The *(Name of local JAC)* hereby adopts these Standards for Apprenticeship on this \_\_\_\_\_ Day of \_\_\_\_\_, 2002.

REPRESENTING THE *(Name of the local JAC)*:

\_\_\_\_\_  
Signature of Sponsor

\_\_\_\_\_  
Signature of Union Representative

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Name

**ATTACHMENT A**  
**STATIONARY ENGINEER**  
**RAIS Code: 0536 O\*NET/SOC: 51-8021.02**

This trade schedule is attached to and a part of the Apprenticeship Standards for the above identified occupation.

**1. TERM OF APPRENTICESHIP**

The term of the occupation shall be 4 years with an OJT attainment of approximately 8000 hours supplemented by the required hours of related instruction.

**2. RATIO OF APPRENTICES TO JOURNEYWORKERS**

The ratio of apprentices to journeyworkers allowed to be employed by any single employer shall not be more than one (1) apprentice for every five (5) journeyworkers.

**3. APPRENTICE WAGE SCHEDULE**

Apprentices shall be paid a progressively increasing schedule of wages based on a percentage of the current journeyworker wage rate, **OR** as per the CBA.

**4 Year Term Example: (THESE ARE ONLY SAMPLES-ADJUST TIME AS APPROPRIATE)**

First half/first year	50% of employer's engineer's rate
Second half/first year	55%
First half/second year	60%
Second half/second year	65%
First half/third year	70%
Second half/fourth year	75%
First half/fourth year	80%
Second half/fourth year	85%

**4. SCHEDULE OF WORK EXPERIENCE (See attached Trade Schedule)**

Local JACs may adjust these work processes to conform to local practices prior to submitting these Standards to the appropriate Registration Agency for approval.

**5. SCHEDULE OF RELATED INSTRUCTION (See attached Course Outline.)**

**SCHEDULE OF WORK EXPERIENCE:  
STATIONARY APPRENTICESHIP**

<b><u>WORK PROCESS</u></b>	<b><u>HOURS</u></b>
1. Electrical control and distribution	800 hours
2. Refrigeration systems Commercial Industrial	1250 hours
3. Air conditioning systems Repair/maintenance operation CFC Training & Certification	1250 hours
4. Boilers Low pressure systems High Pressure systems Repair/maintenance operation	1250 hours
5. Air handling systems	1250 hours
6. Industrial equipment Utilization Maintenance/repair	800 hours
7. Chemical treatment of water systems	800 hours
8. Fuels and fuel technology Environmental considerations	600 hours
<b>Total hours</b>	<b>8000</b>

Hours worked by the apprentice over and above the required minimum of 8000 hours shall be distributed over this schedule in the same ratio allotted each subject area in the preceding breakdown.

These schedules are to be considered flexible and may be revised by the local JAC to accommodate any condition and may, with the approval of the local JAC, be applied interchangeably among the different apprentice classifications.

**IUOE STATIONARY APPRENTICESHIP  
CURRICULUM**

**FIRST YEAR  
FIRST HALF  
(72 Hours)**

- 1. Basic Mathematics..... 14.4
  - A. Whole numbers
    - a. Number line
    - b. Real numbers
    - c. Basic arithmetic functions
    - d. Absolute numbers
  - B. Common Fractions
    - a. Simple fractions
    - b. Conversion to decimal
    - c. Proper & improper fractions
    - d. Mixed numbers
    - e. Complex fractions
    - f. Arithmetic functions with fractions
      - i. Addition & subtraction
        - Common divisor
      - ii. Multiplication & division
        - Lowest common denominator
      - iii. Proportions and percentages
        - a. Discount
        - b. Commission
        - c. Interest
        - d. Profit & loss
  
- 2. Introduction to Boiler ..... 14.4
  - A. Boiler Definition
  - B. Basic Terms
    - BTU, Radiation, Conduction & Convection
  - C. Classifications
    - a. Water tube
    - b. Fire tube
  - D. Accessories
    - a. Superheaters
    - b. Steam Separators
    - c. Heat Recovery
      - i. Preheater
      - ii. Economizers
    - d. Basic Safety
      - i. Devices, LWCO, Safety valves, etc.
    - e. Basic Operation
      - i. Firing
      - ii. Water cycle
      - iii. Fuel cycle
  - E. Basic Construction
    - a. Container Construction
    - b. Furnace Construction

- F. Industrial & Utility Boilers
  - a. Design
  - b. Operation
  
- 3. Algebra & Geometry..... 14.4
  - A. Roots & squares
  - B. Powers
  - C. Algebraic Expressions
  - D. Equations using algebra
    - a. Addition & subtraction
    - b. Multiplication & division
  - E. Geometry
    - a. Squares
    - b. Rectangles
    - c. Circles
    - d. Angles & triangles
    - e. Formulas for area, circumference, etc.
    - f. Interpolation
  
- 4. Boiler Accessories ..... 14.4
  - A. Water Column
    - a. Gauge glass
    - b. Try cocks
  - B. Fusible Plugs
    - a. Fireside
    - b. Waterside
  - C. Steam Gauges
    - a. Siphon
    - b. Bourdon Tube
  - D. Feedwater Regulators
    - a. Float
    - b. Thermohydraulic
    - c. Thermostatic Expansion
  - E. Safety Valves .
    - a. Code (ASME)
    - b. Testing
    - c. Construction
    - d. Operation
  - F. Blowdown Apparatus
    - a. Surface blowdown
    - b. Bottom blowdown
    - c. Flash tank
  - G. Non-return Valves
    - Operation
  - H. Steam Headers
    - a. Construction
    - b. Purpose
  - I. Soot Blowers
    - a. Operation
    - b. Design
  - J. Valves
    - a. Globe
    - b. Gate
    - c. Balanced valve
    - d. Check valves



- e. Reducing
  - f. Stop cocks
  - K. Instruments and Automatic Combustion Control
    - a. Draft gauge
    - b. Pressure gauges
    - c. Temperative indicators
    - d. Automatic controls
      - i. On-off
      - ii. Postponing
      - iii. Metering
5. Boiler Design and Construction ..... 14.4
- A. Materials
  - B. Stresses
    - a. Tubes
    - b. Shell
    - c. Drums
  - C. Drum & shell construction
  - D. Rivets and riveted joints
  - E. Welded construction
  - F. Stays
    - Types
  - G. Fittings
  - H. Assembly
  - I. Heating Surface
    - a. Tubes
    - b. Shells
    - c. Tube sheets
  - J. Steaming Capacity

**FIRST YEAR  
SECOND HALF  
(72 Hours)**

6. Combustion of Fuel ..... 26.5
- A. Requirements
  - B. Theory
    - a. Absolute pressure
    - b. Constant temperature
    - c. Constant volume
    - d. Constant pressure
    - e. Atoms & molecules
    - f. Combustion
      - i. Carbon
      - ii. Hydrogen
      - iii. Sulfur
    - g. Perfect combustion
    - h. Complete combustion
    - i. Incomplete combustion
    - j. Excess air

- C. Air Supply
  - a. Draft
    - i. Draft gauge
    - ii. Forced
    - iii. Induced
    - iv. Balanced
    - v. Induced draft fans versus chimneys
- D. Coal
  - a. Origination
  - b. Composition
    - i. Proximate analysis
  - c. Heating value
  - d. Ultimate analysis
  - e. Coking
  - f. Soft coal
  - g. Hard coal
  - h. Moisture
  - i. Other characteristics
- E. Fuel Oil
  - a. Origination
  - b. Characteristics
  - c. Specific gravity
    - i. API scale
  - d. Viscosity
  - e. Heating valves
  - f. Types
    - i. Classes or comm. Etc.
  - g. Combustion
- F. Gas
  - a. Origination
  - b. Characteristics
  - c. Make-up
  - d. Heating valves
  - e. Types

7. Operation and Maintenance of Steam Boilers ..... 26.5

- A. Placing Boilers in Service
  - a. Hydrostatic Test
  - b. Boil out
- B. Normal Operation
  - a. Automatic control
  - b. Manual control
  - c. Feed water regulators
  - d. Scale
  - e. Corrosion
  - f. Carry over
  - g. Foaming
  - h. Priming
  - i. Caustic embrittlement
  - j. Water treatment
    - i. External
      - a. Zeolite softener
      - b. Demineralizer
      - c. Hot process lime-soda-ash

	<ul style="list-style-type: none"> <li>d. Evaporator</li> <li>ii. Internal <ul style="list-style-type: none"> <li>a. Chemicals</li> <li>b. Feed water heaters</li> <li>c. Blowdown</li> </ul> </li> <li>k. Boiler &amp; fuel efficiencies <ul style="list-style-type: none"> <li>i. Formulas</li> <li>ii. Losses</li> </ul> </li> </ul>	
	C. Emergencies <ul style="list-style-type: none"> <li>a. Procedures</li> </ul>	
	D. Banking	
	E. Maintenance <ul style="list-style-type: none"> <li>a. Fireside</li> <li>b. Waterside</li> </ul>	
	F. Inspections <ul style="list-style-type: none"> <li>Preparation</li> </ul>	
	G. Repairs <ul style="list-style-type: none"> <li>a. Tubes</li> <li>b. Drums</li> <li>c. Baffles</li> <li>d. Refractory walls</li> </ul>	
8.	Safety and First Aid.....	10
	A. Precautions	
	B. Common sense <ul style="list-style-type: none"> <li>a. Storage of chemicals</li> <li>b. Storage of fuel</li> </ul>	
	C. Fire protection <ul style="list-style-type: none"> <li>a. Extinguisher</li> <li>b. Boiler safety</li> </ul>	
	D. Personal Safety 3 <ul style="list-style-type: none"> <li>a. First Aid</li> <li>b. CPR</li> </ul>	
9.	Labor Movement.....	6
	A. History <ul style="list-style-type: none"> <li>a. AFL-CIO</li> <li>b. Operating Engineers</li> </ul>	
	B. Current Status	
	C. Future Growth	
10.	<i>Review</i> .....	3

**SECOND YEAR  
FIRST HALF  
(72 Hours)**

1.	Fundamentals of Air Conditioning.....	21
	A. Temperature and heat	
	B. Measurements	
	C. Basic Physics	
	a. States of matter	
	b. Pressure	
	c. Forces	
	d. Energy	
	e. BTU, Therm, calorie	
	f. Sensible, specific, latent heat	
	g. Heat transfer	
	h. Enthalpy	
	i. Boyles law	
	j. Charles law	
2.	Components .....	21
	A. Basic cycle design and operation	
	B. Components	
	a. Evaporator	
	b. Compressor	
	c. Condensers	
	i. Air-cooled	
	ii. Water cooled	
	iii. Evaporative condensing	
	d. Receiver	
	e. Metering devices	
3.	Refrigerants .....	9
	A. Types	
	B. Handling	
	C. Safety	
4.	Design and Construction .....	21
	A. Evaporators	
	B. Compressors	
	a. Types	
	b. Capacity control	
	c. Lubrication	
	C. Condensers .	
	a. Types	
	b. Cooling towers	
	c. Evaporative condensing	
	D. Receiver	
	E. Metering devices	
	Types	

**SECOND YEAR  
SECOND HALF  
(72 Hours)**

1.	Accessories .....	6
	A. Accumulator	
	B. Filter devices	
	C. Service valves	
	D. Oil separator	
2.	Controls .....	6
	A. Motors controls	
	B. Safeties	
	a. Low temperature	
	b. Low pressure	
	c. High pressure	
	d. Rupture disk	
3.	Physics of Air Conditioning .....	6
	A. Enthalpy chart	
	B. Psychometric chart	
4.	Refrigerant System Operations .....	9
	A. Comparison to reciprocating	
	B. Superheat	
	C. Oil traps	
5.	Centrifugal Refrigeration .....	9
	A. Comparison to reciprocating	
	B. Designs	
	C. Operations	
	D. Parts	
6.	Absorption Refrigeration .....	6
	A. Comparison to mechanically operated	
	B. Design	
	C. Basic operation	
	D. Parts	
7.	Heat Pumps. ....	9
	A. Basic cycle	
	B. Design	
	C. Basic operation	
	D. Parts	

8.	Basic Control Electricity. . . . .	6
	A. Wiring of controls	
	B. Schematics	
9.	Safety. . . . .	6
	A. Personal	
	B. Equipment	
	CFC Training and Certification (Section 608 of the EPA Clean Air Act of 1990).....	9

**THIRD YEAR  
FIRST HALF  
(72 Hours)**

1.	Basic Electricity. . . . .	6
	A. Fundamentals	
	a. Safety	
	b. Circuits, electrons, batteries, symbols, atoms	
2.	Sources of Electricity. . . . .	6
	A. Chemical	
	B. Light	
	C. Pressure	
	D. Heat	
	E. Magnetism	
	a. Generators, alternators	
	b. Principles of magnetism	
3.	Conductors and Insulators . . . . .	6
	A. Wires, fuses, circuit breakers	
	B. Insulators	
4.	Ohm's Law. . . . .	9
	A. Electromotive force	
	B. Current	
	C. Resistance	
	D. Watt, kilowatt, kWh	
5.	Series Alternating Current and Direct Current Circuits . . . . .	12
	A. Calculation of current and direct current circuits	
	B. Ohm's Law	
6.	Parallel Alternating Current and Direct Current Circuits . . . . .	12
	A. Calculation of current and voltage drops	
	a. Thevenin's equivalent theorem	
	b. Voltage divider theorem	
7.	Series and Parallel Circuits . . . . .	9
	A. Calculations	

8.	Resistors and Capacitors . . . . .	12
	A. Resistors	
	a. Symbols, construction	
	b. Thermistors	

**THIRD YEAR  
SECOND HALF  
(72 Hours)**

9.	Meters. . . . .	9
	A. Types	
	B. Uses	
	C. Reading meters	
10.	Alternating Current Voltages. . . . .	15
	A. Sine wave	
	B. How alternating current is produced	
	C. Sine wave cycle	
	D. Frequency, period, amplitude	
	E. Peak voltage	
	F. RMS	
	G. Current - voltage phase relationship Power factor	
11.	Electromagnetic Induction. . . . .	9
	A. EMF in a conductor	
	B. Induced EMF	
	C. Inductance	
	D. Transformers	
	a. Construction	
	b. Uses	
12.	Motors and Motor Circuits. . . . .	15
	A. Alternating current	
	a. Overview	
	b. Characteristics	
	c. Advantages and disadvantages	
	B. Direct current	
	a. Overview	
	b. Characteristics	
	c. Advantages and disadvantages	
13.	Delta and Wye Wind Configurations for Motor and Generating Systems . . . . .	15
	A. Delta to Wye conversions	
	a. Mathematical analysis	
	b. Number of poles	
14.	Safety . . . . .	9
	A. Stationary Engineers Environmental Health & Safety Training	
	B. Precautions	
	C. Fire Protection	
	a. Extinguishers	
	D. Personal Safety	

**FOURTH YEAR  
FIRST HALF  
(72 Hours)**

*Direct Digital Controls and Building Automation Systems*

1.	Control Fundamentals . . . . .	3
	A. Control Devices	
	B. Basic Control System Components	
	C. Function of Sensors	
	Thermistors, humidity sensors, pressure sensors	
2.	Control Systems . . . . .	3
	A. Control linkages and their function	
	B. Direct and Reverse Acting controls	
	C. Normally Open and Normally Closed devices	
	D. Basic control actions of a Control System	
	E. Control Actions	
	a. two position	
	b. floating control	
	c. proportional control	
3.	Interfacing Sensors and Actuators . . . . .	6
	A. Basic Computer Control Systems	
	a. Control Points	
	b. Sensors	
	c. Signal Conditioning	
	d. Transducer and Transmitters	
	B. Types of temperature and humidity sensors	
	C. Flow indicators and orifice plates	
	D. Flow meters	
4.	Microprocessors. . . . .	6
	A. Automation	
	a. Energy Management	
	b. Central Processing	
	c. Stand-Alone Unit	
	d. Networking	
	B. Logic and Logic Gates	
	C. Flip-flop Logic Devices	
	D. Major PC components	
	E. Register and Address computer functions	
	F. Arithmetic / Logic Functions.	



5.	Programmable Controllers. . . . .	5
	A. PC programming	
	B. Ladder diagrams	
	C. Relay Diagrams	
	D. Examine Instructions	
	2 types	
	E. Output Instructions	
	3 types	
	F. Branch Instructions	
6.	DDC Programming Methods and Configurations. . . . .	6
	A. PC vs. DDC	
	B. Centralized controls	
	C. Modem Function	
	D. Layout and purpose of Flow Charts	
	E. Flow Chart symbols	
	F. Keyboard functions	
	a. Command keys	
	b. Cursor Keys	
	c. Enter Key	
7.	DDC Applications & Design. . . . .	3
	A. DDC operation	
	B. DDC compared to Electromechanical or solid state control	
	C. Three operation modes	
	a. Demand mode	
	b. Manual mode	
	c. Schedule mode	
8.	Pneumatic Control Systems. . . . .	3
	A. The Air Supply	
	B. Pneumatic Controllers	
	C. Pneumatic relays and final controllers	

*HVAC Testing and Balancing*

1.	<i>RPM &amp; Pressure Instruments</i> . . . . .	2
	A. Five types of RPM instruments	
	a. Direct Contact-manually timed	
	b. Direct Contact-automatically timed	
	c. Direct Contact-instantaneous reading spring dial	
	d. Photo Tachometers	
	e. Stroboscopic Counters	
	B. Five Types of Pressure Instruments	
	a. Inclined liquid manometer	
	b. Vertical liquid manometer	
	c. Magnehelic pressure gauges	
	d. Micrometer liquid hook gauge	
	e. Piton Gauge	

2.	Air Velocity Instruments . . . . .	2
	A. Outlet Velocity Reading Instruments	
	B. Function of an Anemometer and a Velometer	
	C. Function of Flow Hood	
	D. Electrical Anemometers	
3.	Temperature, Humidity and Hydronic Instruments. . . . .	5
	A. Thermometers	
	a. glass stem	
	b. metal dial	
	c. pyrometer	
	d. multipoint reading	
	e. recording	
	B. Thermometer use	
	C. Psychrometers	
	a. Sling	
	b. Powered	
	D. Psychometric Charts	
	E. Flow measurements for hydronic systems	
	F. Four types of flow meters	
	a. Orifice Plate	
	b. Venturi	
	c. Circuit Testers	
	d. Pitot tube	
4.	Air & Hydronic Text Reports . . . . .	5
	A. Air Balance test reports	
	B. Air Balance worksheets	
	C. Outlet Balance report	
	D. Rectangular and round pitot tube traverse sheets	
	E. Hydronic Balance test reports	
	F. Flow diagrams	
	G. Pump test reports	
	H. Low, medium and high pressure systems	
	a. 3 types of low pressure supply systems	
	b. 2 types of low pressure exhaust systems	
	c. 3 types of conventional high pressure systems	
5.	Balancing Low Pressure Constant Volume Supply Systems . . . . .	3
	A. Testing and balancing procedures	
	B. Troubleshooting procedures	
	C. Air movement and resistance in HVAC systems	
6.	Balancing Return Air & Toilet Exhaust Systems. . . . .	3
	A. Return systems	
	B. Balancing return systems with separate systems	
	C. Return Air Plenum ceiling systems	
	D. Toilet exhaust systems	
	E. Constant Volume Systems	
	a. medium pressure	
	b. high pressure	
	F. High Pressure Dual Duct	
	G. High Pressure Induction System	

7.	Variable Air Volume (VAV) Systems . . . . .	6
	A. Operating VAV systems	
	B. Flow requirements for VAV systems	
	C. Diversity factor	
	D. True VAV vs. Secondary VAV system	
	E. High, medium and low pressure systems	
	F. Eleven components of a VAV system	
8.	Ductwork and Damper Testing . . . . .	2
	A. Duct leakage	
	B. Maximum allowable duct leakage	
	C. Leak testing duct work	
	D. Troubleshooting	
	E. Setting outside and return air dampers	
9.	Balancing Exhaust and Residential Systems . . . . .	3
	A. Three categories of components	
	a. Particulates	
	b. Gases	
	c. Fumes	
	B. Static Pressure	
	C. Four types of collectors	
	a. Centrifugal Cyclone	
	b. Baghouse	
	c. Packed Tower Wet Scrubber	
	d. Electrostatic Precipitator	
	D. Reading air flow	
	E. General balancing procedures	
10.	Fan Design & Operation . . . . .	3
	A. Design and operation of fans	
	a. tubular inline	
	b. van axial	
	c. roof exhaust	
	B. Fan CFM and System Static Pressure Relationship	
	C. Fan Performance	
	D. Troubleshooting fan problems	
11.	Drives/Grilles, Diffusers and Ak Areas . . . . .	3
	A. Fan drive components	
	B. Types of fan sheaves	
	a. fixed	
	b. variable pitch	
	c. automatic variable pitch	
	C. Selection of V-belts for HVAC systems	
	D. Ak area	

**FOURTH YEAR  
SECOND HALF  
(72 Hours)**

*IAQ Training*

1. *Definition and types of IAQ Problems* . . . . .2
  - A. Types of PM preventive Maintenance Programs
  - B. Scheduled vs. unscheduled maintenance
  - C. Automated and manual PM systems
  - D. Facility Preventive Maintenance Survey
  
2. *Developing a Preventive Maintenance Program* . . . . .3
  - A. Equipment history record file
  - B. PM record program
  - C. PM charts
  - D. PM work orders
  - E. Master Schedule
  
3. *Operating a PM System – HVAC Design & Operation* . . . . . 2
  - A. Information processing system
  - B. Repair Work order
  - C. Impact of facility cost controls
  - D. General operation of HVAC system
  - E. Understanding the facility-specific design of HVAC system
  
4. *HVAC General System Maintenance* . . . . . 3
  - A. Occupant Comfort and Health
    - a. Temperature
    - b. Relative Humidity
    - c. Cleanliness
    - d. Filters
  - B. Operation and Maintenance
    - a. Mechanical filters
    - b. Electronic filters
  - C. Air Circulation and Flow Problems
  - D. System start-up and purging
  - E. Positive Pressure systems
  - F. Common causes of Odors
  
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The C.P.R. and First aid will be given by the local Fire Department. Text-Steam Plant Operations (Woodruff and Lammers)

**Total Course time will be 144 hours per year**

**ATTACHMENT B**

**APPRENTICESHIP AGREEMENT**  
*(Insert Sample)*

**ATTACHMENT C**  
**SAMPLE**  
**AFFIRMATIVE ACTION PLAN**

**ADOPTED BY**

***(INSERT NAME OF LOCAL JAC)***

**AS REQUIRED UNDER TITLE 29, CODE OF FEDERAL REGULATIONS, PART 30  
AMENDED MAY 12, 1978**

**DEVELOPED IN COOPERATION WITH THE  
UNITED STATES DEPARTMENT OF LABOR  
BUREAU OF APPRENTICESHIP AND TRAINING**

**APPROVED BY \_\_\_\_\_**  
**REGISTRATION AGENCY**

**DATE APPROVED: \_\_\_\_\_**



Each Registered Apprenticeship Program Sponsor who employs five or more apprentices must prepare and submit to the Registration Agency for approval, an Affirmative Action Plan (AAP) and Selection Procedure (SP) which substantially addresses the content of the following samples (Attachment C).

Each sponsor may submit an existing, AAP and SP for approval or use the attached samples as guides in developing their Plans.

Assistance is available through their local Registration Agency office.

## **SECTION I - INTRODUCTION**

The local JAC enters this Plan with good faith for the purpose of promoting equality of opportunity into its registered apprenticeship program. The local JAC seeks to increase the recruitment of qualified women and minorities for possible selection into the apprenticeship program in the event females and/or minorities are underutilized in the apprenticeship program. The local JAC hereby adopts the following nondiscriminatory pledge and Affirmative Action Plan.

This Plan is a supplement to the Apprenticeship Standards. Any changes made by the local JAC shall become part of this written Plan, once approved by the Registration Agency.

## **SECTION II - EQUAL OPPORTUNITY PLEDGE**

The local JAC commits to the following Equal Opportunity Pledge:

The recruitment, selection, employment, and training of apprentices during their apprenticeship, shall be without discrimination because of race, color, religion, national origin, or sex. The sponsor will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30.4.

## **SECTION III - UTILIZATION AND ANALYSIS, GOALS AND TIMETABLES**

In order to allow positive recruitment and full utilization of minorities and women in the apprenticeship program the local JAC pledges to identify outreach efforts under Section IV which will be undertaken. The purpose of the analysis is to determine the minority and women's labor force in the local JAC's labor market area. Once the labor force is determined, the local JAC can determine if deficiencies exist in terms of underutilization of minorities and/or women in the occupations registered with the Registration Agency. (Affirmative Action Plan Work Force Analysis form attached)

## **SECTION IV - OUTREACH AND POSITIVE RECRUITMENT**

The local JAC's affirmative action plan includes the following checked outreach and positive recruitment efforts that would reasonably be expected to increase minority and women's participation in apprenticeship by expanding the opportunity of minorities and women to become eligible for apprenticeship selection. **Once those efforts have been checked, the local JAC shall set forth the specific steps they intend to take under each identified effort.** The local JAC will identify a **significant number of activities** in order to enable it to meet its obligation under Title 29, CFR Part 30.4(c).

- A. An announcement of apprenticeship openings must be disseminated thirty (30) days in advance of the earliest date for application at each interval to the following agencies/organizations:
- Registration Agency
  - Women=s Organizations/Centers
  - Local Schools
  - Employment Service Centers
  - One Stop Centers
  - Vocational Education Schools
  - Other Organizations/Centers (which can effectively reach minorities and women)
  - Newspapers (which are circulated in the minority community and among women)

The announcement shall include the nature of the apprenticeship, requirements for admission to apprenticeship, availability of apprenticeship opportunities, sources of apprenticeship applications, and the local JAC=s equal opportunity policy. Applications will be taken for no less than a two (2) week period.

- B. Participation in annual workshops conducted by employment service agencies for the purpose of familiarizing school, employment service and other appropriate personnel with the apprenticeship program and current opportunities.
- C. Cooperation with school boards and vocational educational systems to develop programs for preparing students to meet the standards and criteria required to qualify for entry into the apprenticeship program.
- D. Internal communication of the local JAC's equal opportunity policy should be conducted in such a manner to foster understanding, acceptance, and support among the local JAC=s various officers, supervisors, employees, and members, and to encourage such persons to take the necessary action to aid in meeting its obligation under Title 29, CFR Part 30.
- E. Engaging in programs such as outreach for the positive recruitment and preparation of potential applicants for apprenticeships; where appropriate and feasible, such programs shall provide for pre-testing experience and training. In initiating and conducting these programs, the local JAC may be required to work with other sponsors and appropriate community organizations. The local JAC shall also initiate programs to prepare women and encourage women to enter traditionally male programs.
- F. Encouraging the establishment and utilization of programs of pre-apprenticeship, preparatory trade training, or others designed to afford related work experience or prepare candidates for apprenticeship. The local JAC shall make appropriate provisions in its affirmative action plan to assure that those who complete such programs are afforded full and equal opportunity for admission into the apprenticeship program.
- G. Utilizing journeyworkers to assist in the implementation of affirmative action in the apprenticeship program.
- H. Granting advance standing or credit on the basis of previously acquired experience, training, skills, or aptitude for all applicants equally.

- I. Other appropriate action to ensure that the recruitment, selection, employment, and training of apprentices during their apprenticeship shall be without discrimination because of race, color, religion, national origin, or sex (e.g., general publication of apprenticeship opportunities and advantages in advertisements, industry reports, articles, etc., use of present minority and female apprentices and journeymen as recruiters; career counseling; development of reasonable procedures to ensure employment opportunity, including reporting systems, on-site reviews, briefing sessions)

**(Identify Action:)**

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**SECTION V - ANNUAL REVIEW OF AFFIRMATIVE ACTION PLAN**

The local JAC will make an annual review of its current Affirmative Action Plan and its overall effectiveness and institute any revisions or modifications warranted. The review shall analyze (independently and collectively) the affirmative action steps taken by the local JAC for evaluating the positive impact, as well as the adverse impact in the areas of outreach and recruitment, selection, employment, and training. The local JAC will work diligently to identify the cause and effect that results from their affirmative action measures. The local JAC will continually monitor these processes in order to identify the need for a new affirmative action effort and/or deletion of ineffective existing activity(ies). All changes to the Affirmative Action Plan must be submitted to the Registration Agency for registration. The local JAC will continually monitor the participation rates of minorities and women in the apprenticeship program in an effort to identify any type of underutilization. If underutilization exists, corrective action will be immediately implemented. The goals and timetables also will be reviewed annually and updated where necessary.

**SECTION VI - OFFICIAL ADOPTION**

The (Insert Name of local JAC) hereby officially adopts this Affirmative Action Plan on this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

\_\_\_\_\_  
SIGNATURE OF (SPONSOR PROVIDES TITLE)

\_\_\_\_\_  
PRINTED NAME

\_\_\_\_\_  
SIGNATURE OF (UNION TO PROVIDE TITLE)

\_\_\_\_\_  
PRINTED NAME

**AFFIRMATIVE ACTION PLAN  
WORKFORCE ANALYSIS**

FOR RAIS CODE: \_\_\_\_\_ OCCUPATIONAL  
TITLE: \_\_\_\_\_

Sponsor: \_\_\_\_\_ RAIS \_\_\_\_\_  
Address: \_\_\_\_\_ Phone# \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Type of selection method  
used: \_\_\_\_\_  
Labor Market Area: \_\_\_\_\_

**STATISTICAL AREA LABOR FORCE ANALYSIS**

Total Work Force:  
Women: \_\_\_\_\_ (   %) of Work Force  
Minority: \_\_\_\_\_ (   %) of Work Force

**SPONSOR'S STATISTICAL DATA**

Journeyworkers:  
Total Journeyworkers:  
Women: \_\_\_\_\_ (   %) of Journeyworkers  
Minority: \_\_\_\_\_ (   %) of Journeyworkers

Apprentices:  
Total Apprentices:  
Women: \_\_\_\_\_ (   %) of Apprentices  
Minority: \_\_\_\_\_ (   %) of Apprentices

**DETERMINATION OF UTILIZATION**

Minority Underutilization Yes \_\_\_\_\_ No \_\_\_\_\_  
Female Underutilization Yes \_\_\_\_\_ No \_\_\_\_\_

**SPONSOR'S GOALS:**

The Sponsor agrees to take affirmative action with the goal of selecting \_\_\_\_\_ % Minorities  
and \_\_\_\_\_ % Women during the next year or hiring period.

Estimated Number of New Apprentices to be hired during the next year: \_\_\_\_\_.

\_\_\_\_\_  
Sponsor's Signature

\_\_\_\_\_  
Approved by Agency

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

**SAMPLE**  
**QUALIFICATIONS AND SELECTION**  
**PROCEDURES**

**ADOPTED BY**

*(INSERT NAME OF LOCAL JAC)*

**DEVELOPED IN COOPERATION WITH THE**  
**UNITED STATES DEPARTMENT OF LABOR**  
**BUREAU OF APPRENTICESHIP AND TRAINING**

**APPROVED BY** \_\_\_\_\_  
**REGISTRATION AGENCY**

**DATE APPROVED:** \_\_\_\_\_

**The certification of this selection procedure is not a determination that, when implemented, the selection procedure meets the requirements of the Uniform Guidelines on Employee Selection Procedures (41 CFR part 60-3) or Title 29 CFR Part 30.**

## **SECTION I - MINIMUM QUALIFICATIONS**

Applicants shall meet the following minimum qualifications:

- A. Age  
Apprentices must be not less than 18 years of age.

### **EXAMPLES:**

- B. Education  
A high school diploma or GED equivalency is required to apply to the apprenticeship program, either one or the other is acceptable.

An applicant who is seventeen (17) years of age and is participating in a school-to-work program or equivalent and who otherwise meets all qualifications may be rated and ranked and placed on the list of eligible applicants. Such an applicant must be eighteen (18) years of age prior to being accepted into the apprenticeship program.

Applicants must submit a copy of their DD-214 to verify military training and/or experience if they are a veteran and wish to receive consideration for such training/experience.

- C. Physical  
Shall be physically capable of performing the essential functions of the apprenticeship program without posing a direct threat to the health and safety of the individual or others. Qualified applicants may be subject to a physical examination or drug screening or both on acceptance into the program and prior to being employed. The cost of the examination and/or drug screening shall be the responsibility of the local JAC or the Employer.

## **SECTION II - APPLICATION PROCEDURES**

- A. Applicants shall be accepted throughout the year. All persons requesting an application shall have one made available upon signing the applicant log.
- B. All applications shall be identical in form and requirements. The application form shall be numbered in sequence corresponding with the number appearing on the applicant log so that all applications can be accounted for. Columns will be provided on the applicant log to show race/ethnic and sex identification and the progress by dates and final disposition of each application.

Before completing the application, each applicant will be required to review the Apprenticeship Standards and will be provided information about the program. If the applicant has any additional questions on the qualifications or needs additional information to complete the application, it will be provided by the local JAC.

- D. Receipt of the properly completed application form, along with required supporting documents (proof of age - driver=s license, birth certificate or other acceptable documentation; copy of high school diploma, GED Certificate or other acceptable documentation) will constitute the completed application.



- E. Completed applications will be checked for minimum qualifications. Applicants deficient in one or more qualifications or requirements or making false statements on their application will be notified in writing of their disqualification. The applicant will also be notified of the appeals right available to them. No further processing of the application will be taken.
- F. Applicants meeting the minimum qualifications and submitting the required documents will be notified where and when to appear for the interview.

### **SECTION III - SELECTION PROCEDURES**

- A. The local JAC shall schedule the interview and evaluation session. All applicants who have met the minimum qualifications and have submitted the required documents must be notified of the date, time, and place to appear.
- B. The interviewer(s) will rate each applicant during the interview on each of the factors on the Applicant Rating Form taking into account the information on the application, required documents, if applicable, and the judgment derived from the interview.
- C. After completing the interview and evaluation of the applicants, the individual rating scores of the interviewer(s) will be added together and averaged to determine the applicant's final rating.
- D. Applicants will be placed on an "A Ranking List" according to their scores at the evaluation session, with the applicant having the highest score being at the top of the list, and all applicants then listed in descending order based on score.
- E. As openings for the registration of new apprentices occur, the highest ranked applicant will be notified of selection by telephone. It shall be the responsibility of the applicant to keep the JAC informed of their current mailing address and telephone number.
- F. Selected applicants must respond to the notice of selection within forty-eight (48) hours of notice. If applicants cannot be reached by telephone, their names will be passed and notice sent to their address by A Certified Mail-Return Receipt Requested, to determine if the applicants are still interested. If no response is received in fifteen (15) working days from the written notice, the applicants' name will be removed from the list. Only one certified notice will be mailed.
- G. Qualified applicants remaining on a preceding ranking list will automatically be carried forward on the new ranking list and slotted in wherever their rating score placed them for a period of two (2) years, unless the applicant has been removed from the list by their own written request or following failure to respond to an apprentice opening. Applicants, who were not placed during the two (2) year period they were on the ranking list, will be required to reapply.
- H. During the two-year period, applicants who feel that their qualifications have improved since their original rating may submit documented evidence of such additional experience or training and request reevaluation and rating at the next regular processing cycle.

- I. Youth who complete a Job Corps training program in any occupation covered in the Apprenticeship Standards, who meet the minimum qualifications of the apprenticeship program, may be admitted directly into the program, or if no apprentice opening is available, the Job Corps graduate may be placed at the top of the current applicant ranking list and given first opportunity for placement. The local JAC shall evaluate the Job Corps training received for granting appropriate credit on the term of apprenticeship. Entry of Job Corps graduates shall be done without regard to race, color, religion, national origin, or gender. **(Note: This is a method of direct entry into the apprenticeship program.)**
- J. An employee of a nonsignatory employer not qualifying as a journeyworker when the employer becomes signatory, shall be evaluated by the local JAC, and indentured at the appropriate period of apprenticeship based on previous work experience and related training. **(Note: This is a method of direct entry into the apprenticeship program, whereby all minimum qualifications are waived.)**
- K. An individual who signs an authorization card during an organizing effort, wherein fifty-one percent (51%) or more of the employees have signed authorization cards, whether or not the employer becomes signatory, and is an employee of the nonsignatory employer and does not qualify as a journeyworker, shall be evaluated and indentured by the local JAC at the appropriate period of apprenticeship based on previous work experience and related training. **(Note: This is a method of direct entry into the apprenticeship program.)** For such applicants to be considered they must:
1. be employed in the local JAC's jurisdiction when the authorization card was signed
  2. have been employed by the employer before the organizational effort commenced
  3. all employees of the employer must have been offered the opportunity to sign authorization cards and be evaluated provide reliable documentation to the local JAC to show they were an employee performing stationary engineer work prior to signing the authorization card .
- L. Transfer of Apprenticeship - Direct Entry. In order to transfer an apprenticeship agreement between **(INSERT SPONSOR AND UNION)** local JACs registered apprenticeship programs, the following requirements must be met:
- The apprentice must submit a written request for transfer, describing in detail the needs and reasons upon which the request is based.
- The apprentices sponsoring JAC must agree to the transfer.
- The receiving JAC must agree to accept the transfer.
- The two **(INSERT SPONSOR AND UNION)** local JACs must agree to the transfer.
- The receiving local JAC shall have complete access to all apprenticeship records pertaining to the transferring apprentice.
- Upon being accepted by the receiving local JAC, the apprentice's existing apprenticeship agreement shall be terminated.

Indenture proceedings shall be initiated with the receiving local JAC and the appropriate Registration Agency. The Registration Agency will be provided with all documentation necessary and/or required to verify that the transfer is justifiable.

Apprentices accepted for transfer will be given full credit for OJT experience and related instruction successfully completed while indentured in the **(INSERT SPONSOR AND UNION)** apprenticeship program.

The transferring apprentice must:

- a. Complete an application form, accurately responding to all questions.
- b. Provide the receiving local JAC official documentation pertaining to their participation in the apprenticeship program that they are transferring from.

An official copy of all records established with the sponsoring local JAC (including a copy of the application form and the apprenticeship agreement properly registered with the Registration Agency) and other information submitted shall be provided to the receiving local JAC. The receiving local JAC will examine all documentation submitted before granting permission to transfer. All such records shall become part of the receiving local JACs permanent files.

- M. Veterans who completed military technical training school and participated in a registered apprenticeship program while in the military in stationary engineering occupation may be given direct entry into the apprenticeship program. The local JAC shall evaluate the military training received for granting appropriate credit on the term of apprenticeship and the appropriate wage rate. The local JAC will determine what training requirements they need to meet to ensure that they receive all necessary training for completion of the apprenticeship program. Entry of military veterans shall be done without regard to race, color, religion, national origin, or sex.

#### **SECTION IV - COMPLAINT PROCEDURE**

- A. Any apprentice or applicant for apprenticeship who believes that he or she has been discriminated against on the basis of race, color, religion, national origin, or sex, with regard to apprenticeship or that the equal opportunity standards with respect to his or her selection have not been followed in the operation of an apprenticeship program, may personally or through an authorized representative, file a complaint with the U. S. Department of Labor or, at the apprentice or applicant's election, with the private review body established by the local JAC (if applicable).
- B. The complaint shall be in writing and shall be signed by the complainant. It must include the name, address, and telephone number of the person allegedly discriminated against, the local JAC involved, and a brief description of the circumstances of the failure to apply equal opportunity standards.
- C. The complaint must be filed not later than 180 days from the date of the alleged discrimination or specified failure to follow the equal opportunity standards, and, in the case of complaints filed directly with the review bodies designated by the local JAC to review such complaints, any referral of such complaint by the complainant to the Department of Labor must occur within the time limitation stated above or 30 days from the final decision of such review body, whichever is later. The time may be extended by the Department of Labor for good cause shown.

- D. Complaints of sexual harassment in the workplace may be filed and processed under Title 29, CFR Part 30, and the procedures as set forth above.
- E. The local JAC will provide written notice of their complaint procedure to all applicants for apprenticeship and all apprentices.

## **SECTION V - MAINTENANCE OF RECORDS**

The local JAC will keep adequate records including a summary of the qualifications of each applicant, the basis for evaluation and for selection or rejection of each applicant, the records pertaining to interviews of applicants, the original application for each applicant, information relative to the operation of the apprenticeship program, including but not limited to job assignment, promotion, demotion, layoff, or termination, rates of pay or other forms of compensation or conditions of work, hours including hours of work and, separately, hours of training provided, and any other records pertinent to a determination of compliance with these regulations, as may be required by the Department of Labor. The records pertaining to individual applicants, selected or rejected, shall be maintained in such manner as to permit the identification of minority and female (minority and nonminority) participants.

In addition to the above requirements, adequate records shall include a brief summary of each interview and the conclusions on each of the specific factors, e.g., motivation, ambition, and willingness to accept direction which are part of the total judgment. Records shall be maintained for 5 years and made available upon request to the Registration Agency.

**SECTION VI - OFFICIAL ADOPTION OF SELECTION PROCEDURES**

The *(Insert Name of local JAC)* hereby officially adopts these Selection Procedures on this \_\_\_\_\_ day of \_\_\_\_\_, 2002.

\_\_\_\_\_  
SIGNATURE OF (SPONSOR TO PROVIDE TITLE)

\_\_\_\_\_  
PRINTED NAME

\_\_\_\_\_  
SIGNATURE OF (UNION TO PROVIDE TITLE)

\_\_\_\_\_  
PRINTED NAME

**ATTACHMENT D**

**SAMPLE EMPLOYER ACCEPTANCE AGREEMENT**

The following hereby agrees to comply with the provisions of the Apprenticeship Standards (Program Number: \_\_\_\_\_ formulated by the **(Insert Name of Organization)**).

I hereby agree to carry out the intent and purpose of the said Standards and to abide by the rules and decisions of the Apprenticeship Committee established under these Standards. I have been furnished a true copy of these Apprenticeship Standards, and have read and understand them and hereby request certification to train Apprentices in the occupation classification identified under the provisions of these Standards, with all attendant rights and benefits thereof, until canceled voluntarily or revoked for good cause by the Program Sponsor or Registration Agency.

\_\_\_\_\_  
(Name of Employer)

\_\_\_\_\_  
(Address of Employer)

\_\_\_\_\_  
(City, State and Zip Code)

\_\_\_\_\_  
(Area Code and Telephone Number)

\_\_\_\_\_  
(Name and Title of Representative)

\_\_\_\_\_  
(Signature of Representative)

**Note: EACH PARTICIPATING EMPLOYER SHALL COMPLETE THIS FORM AND FILE WITH THE PROGRAM SPONSOR. AN ADDITIONAL COPY WILL BE FORWARDED TO THE REGISTRATION AGENCY FOR THEIR RECORDS, IN ACCORDANCE WITH REGISTRATION AGENCY POLICY.**