



**Pacific Gas and
Electric Company**

LETTER AGREEMENT NO. 14-36-PGE

IBEW



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TOM DALZELL
BUSINESS MANAGER

August 14, 2014

Mr. Tom Dalzell, Business Manager
Local Union No. 1245
International Brotherhood of
Electrical Workers, AFL-CIO
P.O. Box 2547
Vacaville, CA 95696

Dear Mr. Dalzell:

The Joint Apprenticeship and Training Committee (JATC) approved the establishment of a Joint Company and IBEW Apprentice Electrical Technician subcommittee to update both T200 and T300 Apprentice Electrical Technician Training Programs. The subcommittee concluded its work and presented the updated training program which includes an updated Administrative Procedures Manual.

The JATC reviewed and approved the updated training program in February 2011. Due to an administrative oversight, the JATC approval was not formally captured in a letter of agreement. With approval, the updated training program and administrative procedures manual will cancel and supersede the program outlined in Letter of Agreement 97-130 retroactive to February 11, 2011. The JATC recommends and approves the revised program to replace the existing program. This has been discussed with Sr. Assistant Business Manager Bob Dean.

If you agree, please so indicate in the space provided below and return one executed copy of this letter to the Company.

Very truly yours,

PACIFIC GAS & ELECTRIC COMPANY

By: 
Stephen A. Rayburn
Director and Chief Negotiator

The Union is in agreement.

LOCAL UNION NO. 1245, INTERNATIONAL
BROTHERHOOD OF ELECTRICAL WORKERS, AFL-
CIO

September 11, 2014

By: 
Tom Dalzell
Business Manager

Guidelines for the Apprentice Electrical Technician Training Program

February, 2011



Apprentice Electrical Technician Training Program

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Apprentice Electrical Technician Training Program

1.0 - Introduction

1.1

Objective

The need for trained and qualified employees to accomplish the duties of a journeyman Electrical Technician in a manner consistent with the company's safety and performance standards has resulted in this apprenticeship. This apprenticeship consists of extensive on-the-job and related academic training which provides the apprentice with a systematic approach to acquire the required knowledge and skill. The training offers the apprentice a vehicle to attain competence, self-confidence, and satisfaction in performing the work of an Electrical Technician.

1.2

Overview

- This apprenticeship serves both Title 200 and Title 300. A Master Apprenticeship Agreement (MAA) for Title 200 and a separate MAA for Title 300 govern the apprenticeship program. However, both agreements are very much same.
 - The apprenticeship is divided into five step levels and each step level is to be completed within a six month time period.
 - The first four steps of the apprenticeship have required on-the-job-training (OJT) that is tracked in hours by the apprentice.
 - During the first three steps, the apprentice will attend courses that require passing written tests. Each course has substantial lab work to enhance the apprentice's learning.
 - At the fifth step level there is no specific OJT or course to attend. The purpose of this step is for "rounding-out" the apprentice's learning and experience.
 - An apprentice at the fifth step level, who has completed all required training, may bid a journeyman position. If the apprentice is the successful bidder, he/she will be promoted to journeyman and still receive a state apprenticeship certificate.
 - An apprentice not meeting the standards of achievement for a given step can be delayed progression until the cause is remedied. If the cause is not remedied within the allotted time, the apprentice may be removed from the apprenticeship in accordance with the MAA.
-

2.0 – Orientation and Enrollment

2.1 -
Orientation and enrollment meeting

Soon after entering the apprenticeship, the training coordinator schedules a meeting with the apprentice and apprentice’s supervisor to review the details of the apprenticeship and to enroll the apprentice in this state certified apprenticeship.

2.2 -
Apprentice Agreement

The apprentice completes and signs the Apprenticeship Agreement, which is an agreement with the apprentice, PG&E, and the state Division of Apprenticeship Standards. After all parties sign the agreement the apprentice receives a copy for his/her records. Upon completion of the apprenticeship the apprentice receives a certificate issued by the state.

2.3 –
Veterans benefits

An apprentice who is a veteran and is interested using their benefits through the apprenticeship can contact Labor Relations at company number 270-2914 or outside line at 925-270-2914 or on-line at <http://edu.military.com/gibill/>.

2.4 –
Materials received

During the orientation meeting the apprentice receives the following:

- A copy of the Master Apprenticeship Agreement (MAA)
- Apprenticeship Standard of the PG&E Joint Apprenticeship Committee.
- Individual Program Standard
- Apprentice Electrical Technician Guidelines
- Exhibit X
- An electronic folder for the Apprenticeship Course and OJT Record

3.0 – Apprenticeship Administrative Roles

3.1 -
Overview

To have successful training program it is essential to have an effective administration system. The following lists the roles identified to administer this training program

**3.1 – Joint
Apprenticeshi
p and
Training
Committee
(JATC)**

The JATC consists of company management and union representatives that oversee all apprenticeships and other training programs within the company. This committee is responsible for ensuring that the apprenticeships are in compliance with state mandates and laws.

Continued on next page

3.0 – Apprenticeship Administrative Roles, Continued

3.2 – **Apprentice Electrical Technician Committee (AET)**

The AET Committee consists of management employees and journeyman electrical technicians. This committee is a sub-committee to the JATC that meets regularly to address apprentice electrical technician training issues.

Duties of this committee include:

- Development and administration of the apprenticeship entrance qualification test.
 - Ensuring the apprenticeship provides adequate training.
 - Reviewing and updating training requirements.
 - Performing evaluations of apprentices who are on action plans.
-

3.3 – **Test Supervisor**

The supervisor plays a major role in the apprentice’s training by ensuring the apprentice is exposed to all elements required of the job and “signing-off” when the apprentice is competent at performing the required tasks. Listed are the responsibilities for this role:

- Assigns work that aligns with the apprentice’s training.
 - Ensures the apprentice has a journeyman to coach and mentor the apprentice.
 - Conducts 90-day progress reviews with the apprentice.
 - Does sign-offs on the apprentice’s Course and OJT Record when the apprentice is qualified.
 - Coordinates with the Training Coordinator.
-

3.4 – **Training Coordinator**

The training coordinator is responsible for the overall apprenticeship.

Responsibilities of the coordinator are as follows:

- Reports monthly to the JATC on AET updates and apprentice issues.
 - Scheduling and conducting AET meetings.
 - Administration of the AET qualification test.
 - Ensures apprentices attend mandated apprenticeship courses.
 - Verifies 90-day reviews are accurate and stored in a central location.
 - Issues letters and develops action plans for apprentices who do not meet the Standards of Achievement.
-

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3.0 – Apprenticeship Administrative Roles, Continued

**3.5 –
Apprentice
Electrical
Technician**

Although the main concern of the apprentice is learning the job, there are administrative responsibilities as well.

- The apprentice is responsible for an accurate Course and OJT Record.
 - The apprentice is responsible for communicating to the supervisor areas where training is needed.
 - Acquires sign-offs by a supervisor and journeyman when he/she becomes qualified to perform a task unsupervised.
-

**3.6 –
Journeyman
Electrical
Technician**

The journeyman provides the apprentice with OJT coaching and mentoring. Administratively, the journeyman notifies the supervisor that the apprentice is qualified to perform a task at a journeyman level and that he/she is signing-off for the apprentice.

**3.7 –
Course
Trainer**

The role of the Course Trainer is to provide classroom and lab training. Administrative responsibilities include:

- Signing-off on the apprentice's Course and OJT Record when the apprentice passes a course.
 - When an apprentice fails a course, the trainer provides counseling; identifying areas the apprentice needs to study and practice in order to pass the course.
 - Notifies the training coordinator of class status for all apprentices attending a course.
-

4.0 – Course and OJT Record System

**4.1 –
Electronic
Record**

Each apprentice has a personal electronic folder. Within the folder is the Course and OJT Record spreadsheet. Only the apprentice, the supervisor, and the training coordinator have write capabilities to this folder.

4.2 – The first tab of the record provides general information about the apprentice such as name, employee ID number, LAN ID, and step start dates. The second tab and tabs there after are for tracking course completions, OJT hours, and task qualifications.

Record layout

Continued on next page

4.0 – Course and OJT Record System, Continued

4.4 – OJT hours There are 1,760 OJT hours required that are completed in the first 4 steps of the apprenticeship. The 5th step is for rounding-out purposes and as such has no OJT hours for this step. The apprentice can enter OJT hours for any task that is practiced.

To stay on track the apprentice needs to average 440 OJT hours for each step. The apprentice is expected to enter hours daily, but at a minimum of once each week. It is not imperative that 40 hours are recorded each week as some job activities may not have a place on the OJT card.

4.3 – OJT Tasks Qualifications Because there is no prerequisite OJT training, the apprentice can begin OJT on any task in the first step. The program consists of 23 tasks and to keep on track the apprentice will need to qualify an average of 5 to 6 tasks during each step.

When the apprentice becomes qualified to perform a task, the apprentice, journeyman, and supervisor sign-off on the task. Sign-offs by the apprentice and journeyman occur when the apprentice demonstrates he/she is qualified to perform the task, while sign-offs by the supervisor normally occur during the 90-day review meetings. The supervisor may do a sign-off as the journeyman as well as the supervisor. Not until all three sign-off on a task is the apprentice deemed qualified and allowed to perform the task without supervision.

4.4 – Minimum Step Requirements For the first step, the minimum OJT hours the apprentice must accumulate are 374 and the minimum qualified tasks are 4. By the end of the second step, the accumulative hours are 792 and the qualified tasks are 9. Refer to the following tables for step OJT hours and task qualification rates.

4.5 – OJT Hours Completion Rates

	Step 1	Step 2	Step 3	Step 4	Step 5
Average Hours/Step	440	440	440	440	
Accumulative Hours	374	792	1254	1760	
Percent of Total	85%	90%	95%	100%	

Continued on next page

4.0 – Course and OJT Record System, Continued

4.6 – Task Qualification Rates

	Step 1	Step 2	Step 3	Step 4	Step 5
Average Qualifications	5	6	6	6	
Minimum Accumulative Qualifications	4	9	16	23	
Percent of Total	80%	80%	94%	100%	

4.7 – Recording OJT Hours

While on line, the apprentice opens the spreadsheet in his/her folder. At the bottom of the spreadsheet are tabs for each step. The apprentice selects the appropriate tab and then locates the task under the Task Description column. The hours are then entered in the column for the current month. The spreadsheet is broken down on a monthly basis, but the hours can be entered as completed and the apprentice is encouraged to do so for accuracy purposes.

4.8 – Course Records

When an apprentice passes a course the course trainer notifies the training coordinator who enters the course completion date, course score, and trainer's name on the apprentice's Course and OJT Record spreadsheet.

5.0 – OJT Progress and 90-Day Reviews

5.1 – *Initial Meeting*

Soon after the apprentice is enrolled, the apprentice and the supervisor meet to discuss expectations for the apprentice in regards to completing the Course and OJT Record.

5.2 – *90-Day Reviews*

After the initial meeting and approximately every 90 days thereafter, the supervisor meets with the apprentice to review the apprentice's progress, do sign-offs, and to plan training for the next 90-days. This review is documented on the Test Department Performance Review for Technician and Apprentice Technician located on the spreadsheet underneath the OJT record.

Continued on next page

5.0 – OJT Progress and 90-Day Reviews, Continued

5.3 –
OJT Task During the 90-day review meeting, the apprentice and the supervisor discuss the training and work experience the apprentice accomplished during the previous 90 days. The apprentice indicates on the Course and OJT Record the completed OJT hours and which tasks he/she has become qualified.

Sign-Offs “Qualified” means the apprentice is fully proficient and can accomplish the task at the journeyman level without assistance.

When the OJT hours are completed for a given task, the apprentice is expected to have become qualified for that task. The apprentice indicates he/she is qualified by signing-off for the task.

The journeyman signs-off for a task when the apprentice demonstrates he/she is qualified. To do the sign-off the journeyman notifies the supervisor who then enters the journeyman’s name in the apprentice’s Course and OJT Record spreadsheet.

When the supervisor, through first hand observations or reliable sources agrees that the apprentice is qualified, the supervisor signs-off on the record and dates the entry.

The apprentice is officially qualified to perform a task after all three sign-offs are recorded on the Course and OJT Record.

It is not required that all the OJT hours are completed, in order for an apprentice to be deemed qualified. However, the OJT hours must still be completed even though the apprentice is signed-off and qualified to perform a task.

5.4 –
Review
Conclusion

At the conclusion of the 90-day review meeting, the supervisor and apprentice sign the 90-Day Progress Review Form (See attachment). This form with the “wet” signatures is sent to the training coordinator who then reviews the Course and OJT Record for accuracy, and then signs the form, and stores it in a permanent apprenticeship file.

6.0 - Apprenticeship Courses

6.1 –
Course Enrollment

The training coordinator arranges for courses to be available for the apprentice at the appropriate step and that the apprentice is enrolled. The apprentice and supervisor are notified of the enrollment by e-mail. Approximately a week in advance of the course the apprentice and supervisor receive another e-mail reconfirming the enrollment and other information such as class hours, materials to bring, and clothing requirements.

6.2 –
Out of step Enrollments

When a situation arises where the apprentice is not enrolled into a course at the required step and the apprentice is not at fault, the apprentice's step progression is not delayed.

6.3 –
Changing Enrollments

The apprentice is normally given adequate notification of upcoming courses and is expected to attend. When circumstances arise, such as a family emergency or illness, the training coordinator will reschedule the apprentice for the next available course. If the next available course is beyond the required step, the apprentice is not held a step progression.

6.4 –
Attending Courses

Courses are held on consecutive days and attendance is required for all days. If an apprentice fails to show for a course and cannot be rescheduled to attend at the required step, the apprentice's step progression is delayed.

For most courses, if the apprentice is absent a day the apprentice is dropped from the course and rescheduled. If the absence is an excused absence, the apprentice is rescheduled and the step progression is not held. If the absence is an unexcused absence, the step progression will be delayed.

6.5 –
Passing a Course

All courses have written tests and a significant amount of lab work. In order to pass, the apprentice must pass the written tests and complete all lab work.

**6.6 –
Course Failure**

The apprentice can fail a course by not passing the written test or by not completing the lab work. When an apprentice fails a course, the apprentice and trainer will review the test and lab work identifying areas the apprentice needs to improve. Notification of the failure, along with an action plan that include the areas to study and tasks to practice, will be e-mailed to the supervisor, the apprentice, and the JATC.

Continued on next page

6.0 - Apprenticeship Courses, Continued

6.7 – Making Up a Course Failure

When an apprentice fails a course, the training coordinator schedules the apprentice to repeat the course. If a course cannot be scheduled within the apprentice's current step the apprentice is deemed to have not met the Standards of Achievement (See section 7.0 regarding the Standards of Achievement).

The apprentice who fails a course on the second attempt can expect to be removed from the apprenticeship. The final decision for removal is the responsibility of the JATC.

After a course failure the apprentice continues his/her OJT, but is not allowed to bypass the apprenticeship course sequence. Refer to the Step Requirements beginning with Section 8, on page 13 for course sequencing. After the apprentice attends and passes the previously failed course the apprentice continues the apprenticeship course sequence.

7.0 – Standards of Achievement

7.1 – Overview

Section F of the Division Master Apprenticeship Agreement (MAA) and Section E of the General Construction Master Apprenticeship Agreement (MAA) spells out the consequences for not meeting Standards of Achievement (SOA). The apprentice is recommended to read the Master Apprenticeship Agreement that pertains to him/her for general knowledge and in the event the apprentice is in a situation of not meeting the SOA.

7.2 – Not meeting Standards of Achievement (SOA)

If the apprentice is not given the opportunity to acquire OJT hours for the required tasks, the apprentice is not at fault and is not held for not meeting the standards.

Continued on next page

7.0 – Standards of Achievement, Continued

7.2 – 7.2 – (continued)	<p>The Apprentice is deemed to have not met the Standards of Achievement for a given step when one or more of the following occurs:</p> <ul style="list-style-type: none">• The minimum number of OJT hours is not achieved for the step.• The required OJT hours are completed for a task, but a sign-off to perform the task is not achieved.• The minimum accumulative task sign-offs for a given step is not achieved.• The apprentice fails a course and cannot make-up the course before a step change.• The apprentice fails to show for a scheduled course.• The apprentice is dropped from a course due to an unexcused absence.
7.3 – Standards of Achievement notification	<p>When the apprentice has not met the Standards of Achievement, the training coordinator provides written notification to the apprentice. The notification is also given to the supervisor, JATC, and union business representative. The apprentice is allowed a maximum of three months to remedy the cause and is held at the current step. If during the three months extension the apprentice meets the standards, he/she receives the next higher step effective the date the standards are met.</p>
7.4 – Action plans	<p>An apprentice who is delayed step progression is placed on an action plan. The plan details the areas for study, tasks to be accomplished, the time frames for completion, the task evaluation method, and other pertinent information in order for the apprentice to meet the Standards of Achievement.</p>
7.5 – Step progression after a delay	<p>When the apprentice meets the Standards of Achievement after a step delay the apprentice is given a new step start date. The apprentice is eligible for the next step progression in six months providing he/she meets the standards for the next step.</p>
7.6 – Failure to progress after step delay	<p>Section F.6 of the Division MAA or Section E.6 of the General Construction MAA provides procedures for the apprentice who does not meet the Standards of Achievement after the apprentice has been held for three months.</p>

8.0 – Requirements for Step 1 (0 – 6 Months)

8.1 – For the first four steps the apprentice should average 440 OJT hours to complete the 1760 hours required for the apprenticeship. However, the minimum required OJT hours that must be completed during step 1 are 374.

Step 1

OJT hours and tasks

On average, the apprentice ought to become qualified for 5 tasks for the step 1 and 6 tasks for steps 2, 3, and 4 in order to complete the apprenticeship's 23 tasks. For step 1 there is a minimum of 4 tasks the apprentice must become qualified to meet the Standards of Achievement.

8.2 – During step 1 the apprentice is expected to attend and pass the following courses:

Step 1 Courses

- Introduction to Schematics (PSOS-0080) – 40 hours *
After completing this course, the apprentice will be able to:
 - Interpret electrical schemes
 - Wire a project board from a schematic
 - Perform electrical troubleshooting.

** This course is required for apprentices who entered the apprenticeship from outside the line of progression and is prerequisite to the Protection Principles Course.*

 - Protection Principles (PSOS-0527) – 80 hours *
After completing this course the apprentice will be able to:
 - Perform trigonometry equations and polar / rectangular conversions to solve three phase AC circuits
 - Explain the operation and testing of substation battery systems, power transformers, and circuit breakers
 - Perform current transformers testing
 - Explain basic protective relaying from simple overcurrent relays to polarized directional relays.

** This course is prerequisite to the Relays and Phasors I Course.*

 - SCADA for Technicians (PSOS-0546) – 24 hours
After completing this course the apprentice will be able to:
 - Describe San Ramon 1, 2, 3 hardware description
 - Perform San Ramon 1 & 2 power-up
 - Perform RTU connections
 - Perform jumper and chip settings
 - Import Config files into Config Pro
-

9.0 – Requirements for Step 2 (6 – 12 Months)

9.1 –
Step 2
OJT hours
and tasks

During step 2 if the apprentice completed the minimum hours from step 1 then another 418 OJT hours for an accumulative total of 792 hours must be completed. The apprentice must become qualified for an accumulative total of 9 tasks to meet the Standards of Achievement.

9.2 –
Step 2 Course

During step 2 the apprentice is expected to attend and pass the Relays and Phasors I Course (PSOS-0085) – 80 hours *

After completing this course, the apprentice will be able to:

- Perform single and three-phase phasor calculations
- Establish PC communication with test gear to perform relay tests
- Perform tests on directional protection schemes and relays

** This course is prerequisite to the Relays and Phasors II Course.*

10.0 – Requirements for Step 3 (12 – 18 Months)

10.1 –
Step 3
OJT hours
and tasks

During step 3 if the apprentice completed the minimum hours from step 2 the apprentice must complete a minimum of another 462 OJT hours for an accumulative total of 1254 hours. The apprentice must become qualified for an accumulative total of 16 tasks to meet the Standards of Achievement.

10.2 –

**Step 3
Courses**

During step 3 the apprentice is expected to attend and pass the Relays and Phasors II Course (PSOS-0086) – 80 hours

After completing this course, the apprentice will be able to:

- Perform installation tests on electro-mechanical and microprocessor distance relays
 - Identify the sequence components present in various types of system faults
 - Perform Transformer Load Checks
 - Perform Negative Sequence Relay tests
 - Perform Harmonic Restraint Relay tests
 - Analyze double-bus, PVD relay, and GE-B90 bus differential schemes
 - Analyze breaker failure and breaker failure back-up schemes
-

11.0 – Requirements for Step 4 (18 – 24 Months)

11.1 – Step 4 OJT hours and tasks

During step 4 if the apprentice completed the minimum hours from step 3 the apprentice must complete another 506 OJT hours for an accumulative total of 1760 hours. The apprentice must become qualified for an accumulative total of 23 tasks to meet the Standards of Achievement.

11.2 – Step 4 Courses

There are no required courses for step 4.

12.0 – Requirements for Step 5 (25 – 30 Months)

12.1 – Rounding out

Step 5 has no regular OJT hours or courses for the apprenticeship. Step 5 is for the purpose of “rounding-out.” A term used when the apprentice has been signed-off and qualified for all tasks, passed all required courses and is practicing tasks for added experience before becoming a journeyman. Providing all training is complete, a 5th step apprentice is eligible to bid a journeyman position.

Attachment



**Pacific Gas and
Electric Company**

90 DAY APPRENTICE PERFORMANCE REVIEW

SUPERVISORS: PLEASE MEET WITH YOUR APPRENTICES AND COMPLETE THE FOLLOWING FORM EVERY 90 DAYS.

COORDINATORS: THE FOLLOWING IS REQUIRED TO BE FILLED OUT BY YOUR APPRENTICE SUPERVISORS AND TURNED IN EVERY 90 DAYS. PLEASE REVIEW THE FOLLOWING, SIGN THE FINAL PAGE (IN INK), AND PLACE THE ORIGINAL IN THE APPRENTICE FILE.

APPRENTICE NAME	DATE
HEADQUARTERS	STEP LEVEL

Signatures: (Sign in Ink & Place in Apprentice Permanent File)

Apprentice: _____ Date: _____

Supervisor: _____ Date: _____

Reviewed By: _____

Coordinator: _____ Date: _____

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