# PACIFIC GAS AND ELECTRIC COMPANY

PG™E -+ 245 MARKET STREET • SAN FRANCISCO, CALIFORNIA 94106 • (415) 781-4211 • TWX 910-372-6587

May 24, 1979

Local Union No. 1245 International Brotherhood of Electrical Workers, AFL-CIO P. O. Box 4790 Walnut Creek, California 94596

Attention: Mr. Dean Cofer, Business Manager

Gentlemen:

Company has developed a new three-week Basic Electricity School Course specifically for Steam Plant Operators and System Operators.

It is proposed to send Auxiliary Operators and Assistant Power Plant Operators to the school between the 18 and 24-month step of their training program while the OIT's will attend during the same wage step as at present. This will necessitate changing the academic training schedule for OIT's from 160 hours to 120 hours for Basic Electricity.

For the purpose of clarification, the attached changes in the Operator Training Program are also proposed.

Because Steam Generation does not now provide Basic Electricity in their training program for operators, Company proposes to add the ACT as a requirement which must be met during the employee's first six months in the classification. This is similar to the present Operator Training Program.

The attached changes to the Steam Generation Training Program are proposed for adoption.

Also attached is an Outline of the new Electric/Steam Operators Three-Week Basic Electricity Course for your use.

Should you have any questions concerning these proposals, do not hesitate to contact me.

If you are in accord with the foregoing and its attachments and agree thereto, please so indicate in the space provided below and return one executed copy of this letter to Company.

Yours very truly,

PACIFIC GAS AND ELECTRIC COMPANY

Manager of Industrial Relations

The Union is in accord with the foregoing and its attachments and it agrees thereto as of the date hereof.

By

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

July 18.\_\_\_\_, 1979

Business Manager

### ELECTRIC DEPARTMENT

## OPERATOR TRAINING PROGRAM

# A. <u>Placement Into the Operator-in-Training Classification</u>

An employee appointed to the Operator-in-Training classification shall start at the beginning step of the classification and progress through the Assistant Operator classification to journeyman status upon successfully meeting the standards outlined in this program. Based on the employee's current knowledge, skill, efficiency, adaptability and physical ability which relate directly to prior performance of journeyman operator duties and which supplant need for training in the Operator Training Program, the employee may be placed in a wage step above the beginning rate. Since such a placement will alter the negotiated length of the training period, Company and Union agreement is required.

# B. Training and Testing of Employees in Operator Training Program

All employees in the Operator Training Program shall be required to successfully complete the three-week Basic Electricity School for Operators, the Basic and Advanced Operating School, and to successfully demonstrate acceptable performance in the on-the-job aspects of the program by successfully passing the appropriate established wage progression test prior to advancing to the next wage step in the program.

A grade of 70 percent shall be considered as qualifying for all tests in the program. An employee in the program who has spent six months at the current wage step, and who meets or exceeds the established standards of achievement, including passing the wage progressive test for such a wage step, shall be advanced to the next higher wage step of the progressive wage rate.

An employee who is due to progress to the next higher wage step in the wage progression who fails to meet the established standards of achievement or established wage progression test shall:

1.) be notified of the inadequate performance in writing prior to the date the employee is scheduled to receive the next higher wage step;

2.) be held in the present wage step; and

3.) be allowed a maximum of three months, including one retest to meet the established standards for the wage step for which the employee is being held. Such a three-month period shall commence the day the original progression test failure occurs.

The 18 and 30-month wage progression tests are two-part consisting of a written test plus a series of operating problems that must be satisfactorily completed on the power system simulator. Both parts of these tests must be satisfactorily completed within this three-month time period. 4.) An employee in the Operator Training Program who fails to successfully pass the tests established for the three-week Basic Electricity School, the Basic Operator School or the Advanced Operator School shall have three opportunities in a three-month period to pass the tests. Such threemonth period will commence on the date the school, which the employee failed, ended.

5.) A copy of the written notification shall be furnished to the Union's Business Representative.

\*INDICATES CHANGE

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# STEAM GENERATION DEPARTMENT TRAINING PROGRAM

# **Proposed Changes:**

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In order to improve the effectiveness of the Steam Generation Department Operator Training Program, the following changes will become effective as of the date of this letter.

- A) All new hires into the Auxiliary Operator or Assistant Power Plant Operator classification shall be required to pass the Arithmetic Computation Test (ACT) during the first six months in the classification.
  - 1. The first test must be taken by the end of two months in the classification and if additional tests are requested, they should be given at intervals of 30 days. A total of three examinations shall be allowed.
  - 2. The new employee will be given a copy of the study form with answers at the time of employment with the understanding that the employee will take the test as indicated in Item A) 1.
  - 3. If the employee fails to pass the test within the established time, the employee shall be removed from the classification.
  - 4. Transfer applicants must pass the examination before their transfer request is accepted.
- B) All Auxiliary Operators and Assistant Power Plant Operators hired on or after January 1, 1978 shall be required to successfully complete the three-week Basic Electricity School Course for Operators. (An outline of this course developed for both Steam Power Plant Operators and Electric Department Operators is attached.)
  - 1. Auxiliary Operators and Assistant Power Plant Operators will normally be scheduled to attend Basic Electricity School for Operators between the 18-month and 24-month steps of their program.
  - 2. An Operator who fails the Basic Electricity School for Operators shall have three opportunities in a three-month period to successfully pass the test established for the Basic Electricity School for Operators. Such three-month period will commence upon completion of the school for which the test was failed.
  - 3. Successful completion of the Basic Electricity School for Operators shall be a requirement for the 24-month PWI.
  - 4. An Operator who fails to pass the Basic Electricity School for Operators test within the specified time shall be removed from the classification and demoted to Helper in a Steam Maintenance Department in the Division. As a Helper, the employee shall either fill a vacancy if one exists or displace the junior employee in the classification provided such junior employee does not have more Service.

# ELECTRIC/STEAM OPERATORS <u>3-WEEK OUTLINE OF</u> BASIC ELECTRICITY COURSE

(Weeks I and II will be conducted by Electric School personnel and all sections referred to in Days 1 through 9 are from the Electric School Basic Electricity . textbook.)

#### WEEK I

## DAY 1

A. Orientation

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- B. Film Electrical Fundamentals
- C. Lecture Electrical Theory Sections 4 & 5
- D. Film Magnetism
- E. Lecture Magnetism Section 6
- F. Magnetism Section 6

## DAY 2

- A. Quiz Sections 4, 5 & 6
- B. Lecture Electrical
- C. Equations and Math Section 7
- D. Meters Section 3
- E. D-C Series Circuits Theory and problem solving Section 8
- F. D-C Series Circuits Theory and problem solving Section 8
- G. LAB D-C Series Circuits Construction and measurement of electrical quantities

#### DAY 3

A. Quiz - Sections 3, 7 & 8
B. D-C Parallel - Circuits Theory and Math - Section 9
C. D-C Parallel - Circuits Theory and Math - Section 9
D. D-C Combination - Circuits Theory and Math - Section 10

E. LAB - D-C Parallel and combination circuits

### DAY 4

A. Quiz - Sections 9 & 10
B. Film - A-C Generation
C. Introduction to A-C - Sections 20, 21 & 22
D. Ohms Law for A-C Circuits - Section 23
E. Power factor and phase relationships - Sections 24, 25, 26 & 27
DAY 5

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A. Quiz - Sections 20 - 27
B. Factors affecting A-C current flow - Resistance - Section 28
C. Factors affecting A-C current flow - Inductance - Section 29
D. Factors affecting A-C current flow - Capacitance - Section 30
E. Meters - Section 40
F. Rectifiers - Section 41
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WEEK II

DAY 6 A. Quiz - Sections 28, 29, 30, 40, 41 B. Generators - Section 42 C. Vectors applied to polyphase systems - Section 42 D. Batteries - Sections 43 & 44 E. Motors - Section 45 DAY 7 A. Quiz - Sections 42 through 45 B. Household Ckts. - Section 46 C. Fuses - Section 47 D. Circuit Breakers - Section 48 E. Thermostats - Section 49 F. Transformers G. Theory & Nameplates - Sections 50-55 H. Film - Transformers I. Transformer - Nameplates and math - Section 60 J. Transformer math K. Quiz - Sections 46 through 55 and 60 DAY 8 A. Wye-Wye transformer connections B. Math calculations for Wye-Wye transformer connections START 61-19 C. Wye-Delta transformer connections D. Math calculations for Wye-Delta transformer connections -Sections 62-9 through 62-16 Ε. Delta-Delta transformer connections Math calculations for Delta-Delta transformer connections -F. Sections 63-4 and 63-5 G. Open Delta-Delta, Open Wye-Delta - Section 65-66 transformer connections H. Math calculations - Open Delta-Delta, Open Wye-Delta transformer connections DAY 9 Α. Special transformers B. Miscellaneous devices - Section 70-74 and 80 C. FINAL EXAM - Weeks I & II DAY 10 (Will be conducted by System Operator School personnel) A. Orientation B. Responder quiz for Item A C. Terms and Abbreviations D. Responder quiz for Item C E. Purpose of a Power System F. Equipment necessary to accomplish the purpose of a power system G. Responder quiz for Items E and F H. Introduction to Switchboards

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(Will be conducted by System Operator School personnel using the simulator in all lesson plans.)

DAY 11

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- A. Responder quiz for Item H of Day 10
- B. Relationship of the various properties of an electrical circuit and how they affect a power system
- C. Responder quiz for Item B (Day 12)
- D. Generation

DAY 12

- A. Responder quiz for Item D of Day 11
- B. Basic protective relays and automatic schemes
- C. Print Reading

DAY 13

- A. Responder quiz for Item B (Day 12)
- B. Responder quiz for Item C (Day 12)
- C. Introduction to Operating Tools
- D. Basic Switch Writing Procedures

# DAY 14

A. Simulator Emergency Operations

## **DAY 15**

- A. Lab
- B. Prepare an application for clearance and associated switching