

THE ACADEMY OF ELECTRICAL CONTRACTING

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Education and Training, Teach Now or Pay Later

May 1988

I am reminded of the TV commercial selling FRAM oil filters. Their slogan is, "Pay me now or pay me later." I believe the thought behind that commercial was, by spending a little money now, up front, through regular maintenance procedures, you would save a lot of money by not having to pay for a major engine overhaul. This concept parallels some of the problems in our electrical industry today. We should spend a little money now for the maintenance of our industry. Maintenance in the form of EDUCATION and TRAINING; putting something back into the industry via our apprentices, journeymen, and management teams. If we do not educate and train now, we will definitely pay later, and that price will be high. It would mean the loss of job opportunities and the eventual loss of our industry as we know it today.

Education and training can take many directions. I would like to cover three of these. First is our Joint Apprenticeship and Training program. There is a new videotape that has been produced by the IBEW with the National Training Director, Mr. A. J. Pearson, outlining the new 5-year program. This tape will soon be available from Chapter Managers and local JATC's.

The new 5-year program has been placed in more than 50% of the labor agreements, and by the end of 1988, it should be in 65%-70% of the agreements. The program is necessary to develop a better training apprentice. The additional year is required to cover the high technology systems that apprentices and new journeymen will be installing. They must have the educational skills to be able to install this "high tech" work. A few subjects that will be addressed in the new program are:

- Basic Motor Controls
- Electronics
- Programmable Controllers
- Super Conductors
- Photovoltaic Generation
- Fiber Optics
- Fire and Security Systems

Many other specialty areas of work will also be included.

There is constant change in our industry, and it is becoming more complex every day. We are in a high tech industry serving a high tech world and we cannot sell our services with low tech people! The day of the "conduit and wire" electrician is rapidly coming to an end.

Another reason for the 5-year program is that our apprentices come to us with poor mathematical skills, and poor math equals eventual failure in obtaining our goals. More time is going to be spent in the various areas of applied math and improving the overall mathematical skills of all apprentices.

In areas where there is a need for additional apprentices, we can utilize the unindentured apprentice on a temporary basis (up to 2,000 hours). This allows the JATC programs the opportunity to look over these unindentured apprentices, and should they demonstrate the learning abilities and good work habits required, they could be recognized as good candidates for the first year

indentured apprentice program. For many years the contractors have wanted a "helper" classification. The unindentured apprentice is a better deal overall as it gives us the opportunity to employ him or her for a year, and then move them into the JATC program.

This provides a career path, and we will always be training new people and putting them into the work force. At the same time we will also be improving the quality of our work force. Currently, our ratio is one apprentice for every seven journeymen. This means we have a long way to go to achieve the allowed three-to-one ratio. If enough apprentices were taken into the program under normal screening procedures, our ratio of apprentice to journeymen would be addressed, and there would not be the need to have the unindentured apprentice. This is, however, a good alternative when other indentured apprentices are not available to man the work. The additional training should develop a more positive attitude toward work and attain better productivity through better trained apprentices. It would increase the number of qualified workmen to gain back our lost work opportunities.

We must all have the foresight and dedication to implement the new 5-year plan. We must get involved as contractors. We must participate in some of the JATC classes, visit with our apprentices, and let them know we are truly interested in their future and the future of our industry. This is going to take time and a lot of hard work. The staff, under the direction of A. J. Pearson, is working very hard to upgrade the class curriculum, the workbooks, the quality of the tests, and the hands-on test equipment that is being made available to the JATC committees. Many hours have gone into the development of the 5-year program, and there is still a lot of work to be done on the 5th year instruction format.

I feel very confident that the goals and objectives will be met, and we will truly be making a head start on the competition toward properly training our apprentices. Remember, when they graduate and become journeymen, they will be our employees for the next 30 to 35 years. We should teach them good work habits, promote positive attitudes and turn out quality wiremen, true professionals in their trade.

Next I would like to address journeyman training. When the apprentice is "turned out" as a qualified journeyman, this cannot mean his training has ended. This should actually be the beginning of his training. Additional training through JATC programs, local union programs, and contractor programs is a must if the journeyman is to be proficient in his trade.

Journeyman training is on the upswing. In 1986 some 13,000 journeymen received additional training of some type through a recognized training program. In 1987 the figure had increased to just over 16,000 in training. This equates to 12% of our journeymen wiremen taking training in some form. This is important not only from the standpoint of job security but also job enhancement. I feel it is very important that journey-

men be recognized for their additional efforts through some type of awards system. Possibly this could be in the form of a diploma, recognition at the local union, a NECA or company meeting, some form of financial reward in the form of additional wages for completion of approved training programs. The possibility exists of establishing an additional classification for a journeyman who furthers his own education, stays proficient in the trade, and takes advantage of offered programs. This concept could become a major incentive. A few of the courses being offered to journeymen are:

- PC Programmable Controller School
- National Electric Code
- Job Safety
- Fiber Optics
- Job Management
- Welding and Specialty Welding
- Rigging
- Process Control

For the last two years NECA has had a very successful teleconference on job management. Many journeymen and foremen have taken their time to attend the teleconferences. In some areas, fourth year apprenticeship classes have attended as part of their training. This is a very positive step for training a great number of people in a short period of time in the very important subject of job management and job productivity. The NECA teleconference should be expanded in coming years.

When you look at the overall electrical construction dollar, approximately 80 cents of every dollar is being spent or controlled in the field! The field foremen and journeymen are ultimately responsible for how well that 80 cents is being utilized. We are left to worry about overhead costs, home office overheads, and other costs that make up the much smaller portion—the 20 cents. Shouldn't the emphasis actually be on the field controlled portion of the total construction dollar, making sure we are maximizing on our expenditures and getting the most for that dollar? We can no longer afford to send journeymen to the field uneducated, unprepared and unqualified!

In the dictionary, the definition of a contractor is:

"A person who makes a contract, especially a person who agrees to do a piece of work for a certain price."

Obviously, we all fall under that category. Why not do it efficiently and cost effectively?

This now brings up the point: We are more than contractors; we are teachers. The dictionary defines a teacher as:

"One who trains individuals in developing skill, in doing things, in acquiring."

This is what journeymen training is all about. It is the difference between a successful operation or one that is doomed to failure.

During the next ten years there is going to be a very serious manpower shortage in the construction industry. In our industry, we will feel this shortage of manpower, but we will have a greater problem—a shortage of

TRAINED and QUALIFIED people. As I stated earlier, we are in a high tech industry and we cannot compete successfully using low tech work forces. Our commitment must be EDUCATION and TRAINING.

Finally, I would like to discuss management training. This starts with the receptionist and carries through to the president of the company. Everyone must be trained in their job if we are to run successful operations. With this comes a very important requirement: COMMUNICATION. Certainly we must educate, but we also must communicate. John Nesbitt, the author of *Megatrends*, states in his book, "...In a high tech industry we must have high touch..." This means we should get involved with our people, both in the field and in the office, and maintain a high degree of communication, working together to solve the day-to-day problems. There is so much information that needs to be communicated between the field and office, office and field, that the business of communication, education, and training must be a daily effort.

There are many NECA courses available for all areas of the management team: Estimating, Job Management, Financial, etc. A very important, on-going course that has been offered for many years is the NECA "Executive Study Program," for all levels of managers. This has probably been the most successful course NECA has ever presented, and has helped train hundreds of employees of NECA contractors.

Education and training also have to be priorities at the company level. Weekly staff meetings, monthly foreman meetings, and semi-annual and annual meetings are necessary for proper communication between the field and office. Many times we hear the foreman say, "How come the boss never comes to see my job? The only time I hear from him is when I'm not making him money." There are many other ways that we can communicate and educate, such as newsletters, company meetings, mailing periodic literature to the home, training seminars and social get-togethers. This must be practiced on a continuing basis.

We are part of a dynamic industry, one of the few that doubles itself every ten to twelve years. We must keep pace with this growth. The proper dissemination of information is essential if we are to be successful in our businesses. Remember: INFORMATION IS POWER!

This is not an easy task for any of us, and if we are to regain our lost work and compete in this dynamic industry, the basic items I have discussed will have to be diligently pursued by the JATC's, NECA, the local unions with direction from their international staff, and most importantly, by you, the owner or manager. We must have the foresight to rebuild our industry and meet the challenges. We are naturally resistant to change; but change we must! Our future is on the line.