



Maintenance Craft and Skill Training

This month I will talk about a topic that touches all maintenance personnel and organizations (from manufacturing to public works) and very commonly is seldom talked about or addressed. As our work force in America ages and we continue not to develop the skills of our younger workers we find technicians from all crafts and industries in there middle to late 50s that have not had any formal training in their trade in 20-25 years. So the result is the skills they do have, have been picked from on-the-job training, tribal knowledge, passed down through the years (we have always done it that way), or from a passing salesman that gave them a hint about what their tech reps do.

It has been estimated by many experts (including yours truly) that a large majority of the maintenance problems we see each day on the job are caused by our own maintenance technicians because they do not have the technical skills to properly repair and maintain our equipment. I have seen estimates from 25% to as high as 40% of all problems are caused by improper maintenance practices. But before you get your feelings hurt by my comments, ask yourself if you have every heard over the maintenance radio: "hey, bring me the big hammer I need to adjust it a little" or "bring me the cutting torches with the Rose Bud tip, if we heat it up a little it will slide right on", or "no problem I can make it fit". Every time one of those actions takes place it more than likely shortens the designed life of the asset or part.

So the only way to change that culture is to provide the proper craft and skill knowledge to our technicians. Sounds easy doesn't it? So why don't we train them? Well there is a long list of reasons that I have heard over the years, here is a few:

- Can't afford it
- Don't have time
- I hired a skilled mechanic why does he need training
- I can't afford to have them out of the plant for that long
- I expect him to train himself for the money I pay!

And my favorite of all times which was heard by a good friend of mine (Pete Little) years ago was: What if I train them and they leave the company? and Pete said, "What if you don't train them and they stay for 30 years!"

I believe there are two stages of craft and skill training, (1) the initial training where you are teaching the employee something they have never seen or done before and then (2) the career long part which is the continuing education where you are updating and refreshing the knowledge over the years.

The initial training part can be handled in several ways. The easiest is to hire certified crafts people that can prove with documentation that they have the necessary skills to properly maintain your assets. The other method if certified employees are not available is to develop your own in-house journeymen program or what I like to call it "pay-for-skills". Or in other words, as the knowledge grows and expands you increase the employees' compensation appropriately. If the employees' knowledge does not grow and expand in the pre-agreed upon time, then they are terminated or transferred to a lower skill level job. One important point to keep in mind, if you set up your own in-house pay-for-skill program it must have a very complete set of operating guidelines and rules



and they must be followed religiously. Keep in mind you are playing with employees' pay and ultimately their lives and families well being. Make sure you do it right.

The continuing education part is most of the time a little simpler to design and manage. The pay-for-skill technique does work too well after your work force is mature and you are looking to fine tune and update their knowledge. When they have been on the job 20 years it becomes difficult to motivate them to volunteer for training. What I see as most successful is to schedule mandatory training in the topics you, as a manager, deem to be the most needed. It works pretty easily... you set up the training and require the employees attend. Ensure it is set-up in a good training environment and with talented instructors. Record attendance; provide some limited testing to validate the effectiveness of the instruction and make it enjoyable. It is difficult to force people to learn but if you provide good instruction in a good learning environment the majority will come away with a lot more than they came with.

Keep in mind a culture of continuous improvement and learning must be established. The successful world class organizations, worldwide, train on an average 5-10% of their total available man-hours.