The Value of the 5 Why Technique

How to peel the onion to find the sweet core

Asking questions comes easily to young children-sometimes to the complete and utter annoyance of their parents. At that point Mom or Dad will answer "because I said so-that's why!" which ends the questions temporarily. Unfortunately as adults we do not ask enough questions because we often assume we already know the answer. To get at the root causes of the many problems that plague us in the plant we need to be skeptical of immediate answers and learn to drill down to the kernel of truth at the center. A great consultant, who practiced the 5 Why technique his whole life, was once asked what should be done if asking 5 whys did not produce an answer. His answer was remarkably simple "Ask why 55 times."

In factories, drilling down to the core or kernel of truth is sometimes very hard work. Personnel want to give answers that they think we want. In some environments folks are afraid of being blamed for a poor or negative result. Also, factory workers do not wish to be associated with what may be construed as a failure. Sometimes "fixing" something immediately seems much easier and quicker than spending time seeking additional info. When this happens we see the same problem showing up over and over. Just ask the skilled maintenance folks in your plants. They are often under so much pressure to quickly fix a piece of production equipment, that they do just that-knowing they will be called again and again.

For example some maintenance techs can replace a simple drive chain in a few minutes. Of course they are well practiced because they have done it over and over. The real problem (aka root cause) may be a worn drive sprocket or whatever. Since they can quickly "fix" it, they do so and move on. This can often cause great frustration on the part of the operators and contribute to the belief that the maintenance crews are not capable of doing things correctly.

One of the best methods to prevent the quick fix syndrome is to have a planned, preventive maintenance program with proper records and well-trained techs. In addition we need to train everyone to use the 5 why technique. Relentlessly asking why until we find the root cause. Answers need to be accepted, tested for accuracy and discarded if they do not make sense. The purpose is to get as much accurate information as quickly as possible. However, this is not as easy as it seems. Personnel need to learn how to ask questions. In the heat of the latest equipment crisis, it is difficult to remember to ask questions the right way. There will be one kind of response to the question "You did not touch that darn valve-did you?" The response will be quite different if someone asks "What was the position of the valve before the machine stopped?" In the first case, most people would assume we are looking for someone to blame-and too often they are correct in that assumption. In the second we can assume we are simply seeking

information-much less threatening. Therefore we must ask questions correctly to get accurate and timely information

The 5 why methodology is a superb tool to use in conjunction with problem solving as it can help gather accurate information very quickly. It is particularly important that the skilled maintenance technicians understand how to use it. It can help find the true root cause and prevent repeated fixes of the same problem. This will free them to spend time on refining the PM program to keep the factory running smoothly. Note that there are certain times when it is appropriate to bypass the 5 why technique until later. If the bridge is burning, it is not relevant as to why. Wait until the fire is out so you can safely try to determine why it started in the first place.

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