Plant Maintenance, Page 4

Now let us talk about the **When**. It seems pretty obvious that the difference between Scheduled and Unscheduled is that one is scheduled and the other is, ...uh..., not scheduled. Scheduled Maintenance is more than just picking a time to work on something; you have to also know what needs to be done. To get a better answer to this, let's consider the **Why**. As was stated earlier, we maintain things 1) to keep them operating, or 2) because they have broken down, or have problems.

So if we want to keep it operating or functioning properly, we would need to schedule some maintenance time. Compare this to when you have your car's oil changed or tires rotated. You could take the chance of running your car without oil changes until the engine seizes up. Like the oil filter commercial says, "Pay me now, or pay me later." The truth in that statement is that you will have to "pay" in minimal lost production or operation betting that you will pay less, in both time and money, than if you have a failure due to lack of maintenance. On the building side, you might compare it to painting your house. You could take some time and a little money to paint your trim before it turns grey and rotten, or wait until you have to replace your backdoor because scraping the paint takes off the wood too. (OK, so don't look at my back door. By the way, any "handypersons" in the class?) So to use some tired buzzwords, Scheduled Maintenance is "proactive" while Unscheduled Maintenance is "reactive".

Scheduled Maintenance can be categorized in three basic programs: Preventative Maintenance (PM), Predictive Maintenance (PdM), and Reliability Centered Maintenance (RCM). Let's look at these a little closer.

Any of you familiar with Stephen Covey's *7 Habits of Highly Effective People* knows that Habit 7 is "Sharpen the Saw". Using the lumberjack analogy (don't break into song here), if you want to keep cutting timber effectively, you obviously need a sharp saw. So you need to "invest" some time to sharpen your saws so that you will save time and energy during your cutting. You could say that the lumberjack is performing Preventative Maintenance (PM) on his tools.

PM is the lowest level of Scheduled Maintenance. In the example of maintaining your car, you probably changed the oil because you reached a certain number of miles since the last oil change. Same thing with rotating your tires (isn't that kind of a silly phrase, don't tires rotate under normal conditions, anyway?). Somewhere, some engineers have determined that, under normal operating conditions your oil (tires, belts, hoses, etc.) should be changed (rotated, etc.) at a certain interval, whether it be mileage or time. That's why you have a Maintenance Schedule in the back of your car owner's manual. Schedule Part A: do this; Part B: do that. If you keep up this regimen, you will experience fewer problems (not to mention not voiding your warranty).

We noted early on that some of the "things" that are maintained are: Buildings; Building
Systems; Operational Equipment; and Site and Property. What kind of PM could you be doing on each of these various categories? We already referred to painting exposed wood. Even concrete can use some PM. As you may know, Portland cement concrete (what we normally call "concrete") is reinforced with steel reinforcing bars commonly referred to as rebar. If the concrete cracks, which all concrete does, and water penetrates the crack, the rebar can corrode. As it rusts, it expands and eventually can break the concrete. One way to prevent this is to seal the concrete.

[Instructor's sidebar: concrete is made with Portland cement, sand and stone (aggregate), and water, so please don't call concrete "cement" or worse yet, "SEE-ment".]

If you are a Plant Manager you are obviously concerned that your "production equipment" is working properly, otherwise your manufacturing of widgets would stop, directly affecting your bottom line. But why should you be concerned with the maintenance of Site and Property? That doesn't affect production, does it? In real estate, you hear the phrase "curb appeal," does a manufacturing plant have "curb appeal?" It may, if you want high morale with your employees, or if you want potential customers or investors to think you have a well managed plant. Is the parking lot safe without cracks and tripping hazards? Is there litter all around with critters molesting pedestrians? Are the utilities working? Sure you want all of your production needs covered: water, power, gas, etc. but are the toilets working, and the lunch room lighting adequate? Are piles of trash and/or misplaced materials creating barriers to effective/efficient production? All of these items can have an effect on production - the human element.

As a Plant Manager, how effective will your production equipment be if the roofs leaked every time it rained, or if it was so hot and humid that your electronics shut down? Sure it may not be your responsibility, but how does it affect your budget? Can you coordinate production with your facility manager so that scaffolding can be erected over some of your equipment so that an air handling unit can be repaired or maintained? Think of the oil change....

<<Back 1 2 3 4 5 6 Next>>

© 2009 Kevin T. McMeel

Back to Top