Preventive maintenance (PM) is a time-based strategy conducted at set intervals that allows equipment to be taken off line, inspected and repaired. The goal is to prevent problems from occurring at the most inopportune times, during operation. Whether you are a commercial industrial laundry or an on-premise laundry, a well-planned PM program can keep equipment running efficiently and reduce costs. The return on investment in savings and increased reliability has been proven over time.

LETTING MONEY GO DOWN THE DRAIN?
How Preventive Maintenance Pays Off

By Neal Lorenzi
Yet, how often do we take time to reflect on the importance of this procedure? PM is important because it protects one of your organization’s largest investments, your equipment, as well as your employees and customers, expert agree. Poorly maintained equipment loses its value quickly. It makes sense to practice proactive PM. For example, lubricating a part on a regular basis eliminates the need to replace that part when it locks up during operation.

Also, poorly maintained equipment can malfunction and cause injury to employees, says Doug Story, Vice President of Corporate Support for Gurtler Industries, South Holland, IL. “During a PM evaluation, many of these issues can be caught during the early stages, so that the cost to repair and potential for malfunction are minimized,” he notes.

Effective PM protects your customers from contaminated linens and your operation from leaking drains, seals and water valves. All contribute to poor quality production, which affects customers in the long run. “It amazes me to have discussions with individuals that want to produce the highest quality from washers that are not properly maintained. By not practicing proactive PM, all they are doing is costing their operation more money down the road and perhaps losing some of their customer base,” Story says.

Story provides the following example of the impact of a poorly maintained drain valve on a laundry operation: The drain valve on a washer costs $50 to $100 to install. What happens if the drain valve is left to leak at a rate of 2 to 5 gallons per minute?

Using an easy water cost of $1.25 per 1,000 gallons or about 0.125 cents per gallon, water leaking at 3 gallons per minute will cost a plant about 0.375 cents per minute of operating time or about 22 cents per hour in water costs. The end result: a total of 180 gallons of water will be lost during one hour of operation.

Story adds that effective PM is the original green (environment friendly) business practice. “I see ‘green’ as a new way to talk about efficiency. A properly working washer, dryer or ironer is going to produce the maximum in quality with the most efficient utilization of time, chemicals, utilities and personnel,” he notes.

LEAVING MONEY ON THE TABLE?
When it comes to following PM recommendations to the letter, are laundry operations leaving money on the table? For example, if a drain valve is recommended to be replaced every 1,500 hours but does not fail until 2,000 hours, what should maintenance staff do? Replacing the valve early means scheduling downtime.

Dave Clark, Vice President of After-Market Operations, G.A. Braun, North Syracuse, NY, says management needs to ask itself this question: If we have a catastrophic failure and the machine goes down, what will the cost be in terms of downtime—having to outsource product to get it washed, dried or folded; and having to air freight specific parts or hiring a service technician to repair the machine.

“It comes down to, what is your operating style, how do you want to run your business? I would rather plan for scheduled downtime than have a failure,” he says. “Generally, catastrophic failure happens when you’re running equipment the hardest, when you have the greatest need. When you’re not prepared for it, the cost goes through the roof—in terms of financials and lost customer satisfaction. It’s important to plan downtime. You don’t want to have a failure when you can least handle it.”

Also, each site must tailor its proactive maintenance program based on its usage, material process and maintenance team experience. “A lot depends on your maintenance crew and the environment you work in. Environment can have a great impact on wear and tear of equipment. For example, a dusty desert environment is stressful to equipment. Also, if you have a seasoned maintenance team that can keep an eye on things and repair equipment before you have a catastrophic failure, those guidelines become the basis for future maintenance work,” he says.
OVERLOOKED AREAS OF PM

Getting down to the nuts and bolts of preventive maintenance, what areas of PM are most often overlooked by maintenance staff? Bob Corfield, President and CEO at Laundry Design Group LLC, Las Vegas, offers these top five areas of concern:

1. Folder belting wear and scheduling for replacement. Too often, the crossfold and stacker areas of sheet and towel folders are overlooked under normal PM. Missing this area can cause hundreds of hours of lost production, poor fold quality and reruns.

2. Drive belt alignment and motor replacement. Worn or misaligned drive belts can impact machine life and performance, whether installed on variable high-speed washers or fixed-speed fans.

3. Recalibration of controllers and electronic drive systems. This often-missed PM review is important to achieving proper motor control and motor condition sequencing. Simply put, when the motor changes speed or direction, the motor controller needs to be calibrated effectively for that change of condition.

4. Waste pit suction pumps. This is a dirty but necessary job. Suction pumps should be scheduled for offline PM during which they are disassembled; this includes pulling the suction pipe to determine the proper operating condition.

5. Software backup for both upper-level systems and component-level software. Maintenance staff often overlooks the fact that sub-components rely on software to function, and this software needs to be copied for backup. When these subsystems fail, they often require software calibration or programming to work within a machine. Documenting software settings is important.

David Bernstein, Senior Vice President, Turn-Key Industrial Engineering Services Inc., Hollymead, Va., says that washer water levels and drains is another overlooked area. “One sign of lack of proper maintenance on washers is when drains are partially blocked open with towels, lint, strings and other debris. Most equipment manufacturers’ PM schedules suggest checking and cleaning drains daily. Unfortunately, this task is often overlooked, leading to the constant draining and refilling of washers, thereby wasting water,” he explains.

“Similarly, unless the fill levels of washers are checked periodically according to manufacturer-specified guidelines, water levels could become too high, thereby wasting water and diluting chemical dosing, resulting in inadequate dosing and rinsing, as well as shortening linen life.”

Another overlooked area involves failing to check and replace seals and wipers on dryers. “The main temperature sensor in dryers is typically located in the exhaust air stream. Unless door seals, basket seals and basket wipers are kept in good condition, cool air will constantly enter the drying chamber from around these worn and improperly maintained seals,” Bernstein says.

“This cool air not only slows down drying by keeping the unit from maintaining temperature, it also ‘fools’ the temperature sensor into thinking that it needs to add more heat, which wastes gas. There also is a key safety concern associated with this problem, because the addition of high heat at the end of a dry cycle could lead to scorching of goods or a fire inside the dryer.”

As these experts agree, practicing proactive PM requires taking a long-term view of your operation’s success. Scheduling downtime today will result in big-time savings down the road.

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