FOCUS on FACILITIES
Diocese of Cleveland Facilities Services Corporation

# Creating Your Own Routine PM Database
# Part 1—Equipment

Depending on the size of a facility, one who is responsible for maintenance in their building(s) doesn't really need a computerized maintenance management software (CMMS) system to manage maintenance in a facility especially if it consists of a staff of one or two people. What is needed is a commitment to create a preventive maintenance (PM) plan although it is better stated, "Planned Maintenance" because maintenance will never completely "prevent" a piece of equipment from failing and/or eventually wearing out with age of the equipment, as well as the several parts that make up the equipment.

In reading this column the reader should be able to relate to the topic of maintenance within a building if they own an automobile because everyone who owns a car makes sure their vehicle gets routine PM service even if they don't follow the car manufacturer's recommended maintenance plan found in the owner's manual e.g., changing the engine oil every 5,000 miles versus a manufacturer recommending changing the oil every 3,000 miles.

A good and simple definition of PM is the regular and routine maintenance of equipment and assets that will contribute to keeping them operating and more importantly, operating efficiently. PM also contributes to reducing the cost associated with "unplanned downtime" e.g., equipment unexpected failure. The purpose of regularly scheduled maintenance is to ensure the maximum efficiency, performance, and associated utilities optimal cost and, under satisfactory quality control PM conditions, the safety and protection towards the environment. Equipment in good condition usually equates to less interruptions in operation performance and also equates to longer asset life.

So how does a one or two person maintenance staff create a PM plan that will result in scheduled PM work orders being drawn, completed, and results logged back

into the PM folder? First, one drafts an inventory list of equipment requiring routine maintenance even if this maintenance is once a year e.g., winterizing a piece of equipment in advance of the heating season. The inventory can be prioritized based on the following:

- Life safety equipment e.g., battery operated smoke detectors
- Primary equipment e.g., building's heating boiler
- Secondary equipment e.g., fan-powers unit heater at entry vestibule

*Note: This list would also be cataloged by the following categories: Heating, Air-conditioning, Plumbing, Lighting, Electrical Power, and Fire Protection.*

Next the PM planner(s) will need to collect the existing equipment operation and maintenance (O&M) manuals and, if an O&M manual can't be found quite often one can find the appropriate manual on the Internet with a search.

With the inventory cataloged by trade, we recommend the planner refer back to our August 2019 *Focus on Facilities* Facility Management column titled, "What a Preventive Maintenance Work Order Includes" and begin to create the specific PM work orders from their equipment list. (It is important to note that many O&M manuals may provide the PM tasks but not the frequency and further research will be needed and if all else fails, the planner should take a "best guess" because no guess is not sufficient.

When placing a budget estimate of time to perform the PM work order, the planner should visualize the time needed to perform the work and then add up the total number of minutes and convert them to hours to determine the amount of time that will be dedicated to performing the PM on each piece of equipment. These times can be then placed on a facility maintenance calendar so the individual(s) assigned to the various PM work orders will know when the work needs to be completed. Also, important to note that some PM work may be contracted out to a service company to performed based on the skills needed to do the work. We suggest the planner refer back to our August 2019 *Focus on Facilities* Asset Management column titled, "Soliciting Service Contract Bids".

When creating this PM work order system, it is recommended that someone with Microsoft Excel software skills be asked to assist in producing and organizing the equipment database, work orders, PM task timeline, and a reporting into separate folders and then backed up to secure this work effort. Here is where smaller facilities can have their own computerized system without the investment in a CMMS system that would probably be "overkill" for the maintenance staff.

The goal of a successful PM program is to establish consistent practices designed to improve the performance and safety of the equipment at the facility while striving to minimize equipment failure. Not to be forgotten in implementing this plan is the quality assurance and, in some cases, will ensure the long-term success of maximizing "useful equipment service life". Malfunctioning equipment, unscheduled breakdowns, and reduced equipment service life can become a costly process for most building owners, as well as disruption to the facility's function and operation. Achieving this goal begins with the establishment of a PM work order program without the investment premium of time, money, and expertise required to manage a CMMS system when the building does not warrant this kind of investment. What is warranted is the commitment to create a preventive maintenance plan by one or two individuals who have a vested interest in planned maintenance in a small to mid-sized building.

Other *Focus on Facilities* columns to cross reference with this column please go to:

**Facility Management:**

July 2020, A Layman's Security Walk Around
October 2020, A Facility Maintenance Checklist

**Asset Management:**

September 2019, Seasonal Maintenance-Why It Is Done
November 2020, Creating a Deferred Maintenance Plan

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