

# PREVENTATIVE MAINTENANCE

*A well-executed preventative maintenance program is an essential part of a company's food safety and quality strategy, resulting in reduced breakdowns and expenses.*

A preventative maintenance (PM) program is not only an essential element of a company's food safety system but is also a critical factor in the overall operational success of a business.

The written PM program will ensure that facilities, equipment, and instruments that may affect food safety are maintained and calibrated so they perform consistently, properly and as intended.

The following are the six steps in developing an effective PM program:

## 1. Create a Master List

Prepare a master list of all premises, equipment and utensils that will need to be maintained.

This should include the following:

- Premise / Equipment / Utensil name
- Serial or ID Number
- Description (including use)
- Location

## 2. Determine Preventative Maintenance Activities

Develop and document the preventative maintenance procedures for each of the identified premises, equipment and utensils on the master list.

A primary resource for information when developing PM procedures is the manuals provided by the equipment manufacturers. These manuals will detail the activities to be performed, the recommended frequency at which the activities should be performed as well as any parts or maintenance aid products, such as lubricants or oils, that are required.

Ensure that any parts or maintenance aid products that may come into contact with food products are food quality grade. A list of acceptable coatings, paintings, chemicals and other materials is available at the CFIA's website under Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products.

If the equipment was purchased used and/or the manual is not available the information may be sourced online.

**Spare Parts Inventory** - A good PM program must have a good spare parts inventory system. It is important to stock critical equipment components and spare parts. At a minimum, consumables such as gaskets, bearings, seals and lubricants should be on hand, as well as sufficient equipment spares to cover basic service needs and repairs.

Nothing is more frustrating then to have to shut production down because of a \$5.00 part that needs to be ordered in.

## 3. Determine the Frequency

Determine the frequency at which the equipment requires preventative maintenance. There is routine maintenance that may be done daily, lubrication schedules that may be performed weekly and different kinds of more complex maintenance that could be performed monthly, quarterly or annually.

Most equipment manuals detail preventative maintenance schedules for equipment that is run at full capacity, 8 hours a day, 5 days a week. If the equipment is only being used for a few hours a week, adjust the frequency of the work accordingly.

A risk assessment on each piece of equipment should be conducted to assist in determining the frequency of PM activities. One question that could be asked is "How important is that operation to product quality, safety or regulatory compliance?"



Equipment history will also determine frequency of preventative maintenance activities. All equipment is prone to wear and tear over time. The details of the age of the equipment and its repair and service history are important in making objective assessments to assist in determining the frequency of inspections and maintenance.

## 4. Persons Responsible and Training

Staff training ensures that employees have the skills they need for effective preventative maintenance. Equipment suppliers are a good resource and should provide technical support, service and training for equipment maintenance.

If the equipment operators are qualified, assign them maintenance tasks that can be accomplished with on-hand parts inventory. Demonstrate the correct procedures for daily lubrication and adjustments.

Maintenance staff should be trained in correct service and repair procedures, including lock-out and tag-out.

## 5. Record Your Activities

Records of all preventative maintenance should be kept to demonstrate the application of the preventative maintenance program.

Records should include:

- Date / Time
- Equipment / Premise/ Utensil Name or Serial or ID number
- PM Activities Performed
- Parts / Maintenance Aids Used
- Person Responsible

Records should also be maintained of training activities.

## **6. Monitor**

Constantly monitor equipment performance once the schedule is put into practice. Tracking the number of breakdowns - and what broke - will help analyze the schedule's effectiveness. After a few months, scheduling adjustments may be needed based on current performance trends. Some task intervals will be extended, while others will be shortened.

Continuously monitoring and correcting the PM schedule ultimately results in a best-in-class PM program.

A well-executed preventative maintenance program results in reduced breakdowns and cost savings. Like any tool, the tool itself is worthless unless properly utilized in the right way.

Preventative maintenance provides peace of mind for people and meat processors, and is one program where benefits, both quality and economic, can be measured.

For more information, resources, or help with your program please contact:

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