# 6 FAH-4 H-800 PREVENTIVE MAINTENANCE

(TL:FCLH-1; 06-16-1997)

### 6 FAH-4 H-801 GENERAL

(TL:FCLH-1; 06-16-1997)

a. The benefits of preventive maintenance (PM) to major building systems and equipment are direct and substantial.

b. Preventive maintenance requires:

(1) Post management leadership and commitment.

(2) Compliance and discipline. Preventive maintenance must be a normal part of the schedule. Management must ensure that preventive maintenance is never delayed.

(3) Post management understanding of the "true cost of poor maintenance."

c. Preventive maintenance is proactive.

d. The effect of preventive maintenance in reducing the overall maintenance workload is shown in Exhibit 6 FAH-4 H-801 Exhibit H-801. As preventive maintenance increases as a proportion of maintenance workload, overall maintenance workload will be reduced.

### 6 FAH-4 H-802 PREVENTIVE MAINTENANCE ELEMENTS

(TL:FCLH-1; 06-16-1997)

A good preventive maintenance program has several elements:

- Operating equipment correctly.
- Lubricating with the right quantity, the right kind, in the right place, at the right time.

• Predicting wear and deterioration by regularly checking, measuring, and adjusting.

• Routine inspection:

Vibration monitoring and analysis

Sound detection

Water, fuel, and oil sampling

• Maintaining adequate levels of parts and consumables (stock or market source)

• Preventing failures by replacing parts regularly; before they fail.

• Correcting potential failure points when inspections indicate the need.

## 6 FAH-4 H-803 MAJOR FACTORS TO CONSIDER IN BUILDING A PM PROGRAM

(TL:FCLH-1; 06-16-1997)

Consider the following major factors when building a preventive maintenance program:

- Decide whether to PM or not.
- Organize for preventive maintenance.
- Inventory and identify the equipment units to which PM is to be applied.

• Prepare standard instructions (check sheets) for all PM work (inspections, lubrications, adjustments, and parts replacements).

- Establish frequency of PM activities.
- Determine labor, time, and material required.

• Create permanent files and records to provide information on PM work performed.

- Prepare work orders.
- Tie PM to scheduling system.
- Determine who performs PM work.
- Write work orders for repairs identified during PM.

• Analyze reports of completed PM work orders to determine high-cost areas.

- Adjust frequencies based on experience.
- Use, if available, a computerized program to fit the needs of the PM system.
- Review periodically equipment on PM and delete equipment that no longer requires PM.
- Add items as necessary to PM program.
- Security considerations.

#### 6 FAH-4 H-804 WHERE TO APPLY PREVENTIVE MAINTENANCE

(TL:FCLH-1; 06-16-1997)

a. As a concept of operations, PM is on the opposite end of the scale from "repair after breakdown." From an economic viewpoint, operating at either end of this "scale" will result in needless, wasteful expenditures.

b. Follow these general criteria to approach, as closely as possible, that midscale balance between PM and breakdown repair at which total maintenance costs are at minimum:

(1) Do not include any component or piece of equipment that costs less than US\$1,000 to replace in the systematic PM program, except as noted in paragraph 3.

(2) Do not include any component or piece of equipment that has a local sales value greater or equal to 65 percent of its replacement cost (such as window A/C units). (Note: Filters should be periodically cleaned or changed for health, cooling capacity, and room cleanliness reasons.)

(3) Unless a component or piece of equipment has an "unacceptable impact" of failure (safety, security, minimum comfort standards, secondary damage, etc.), economic considerations should govern the frequency of preventive maintenance and servicing.

#### 6 FAH-4 H-805 THROUGH H-899 UNASSIGNED

### 6 FAH-4 H-801 Exhibit H-801 EFFECT OF PREVENTIVE MAINTENANCE ON MAINTENANCE WORKLOAD

(TL:FCLH-1; 06-16-1997)

