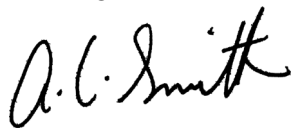




Department of  
Rehabilitation & Correction

SUBJECT: <b>Preventative Maintenance and General Work Orders</b>	PAGE <u> 1 </u> OF <u> 5 </u>
	NUMBER: <b>21-CAM-12</b>
RULE/CODE REFERENCE: ORC 5120.01	SUPERSEDES: <b>21-CAM-12 dated 08/06/2018</b>
RELATED ACA STANDARDS: 5-ACI-3B-08 (4218)	EFFECTIVE DATE: <b>June 1, 2021</b>
	APPROVED: 

## I. AUTHORITY

Ohio Revised Code 5120.01 authorizes the Director of the Department of Rehabilitation and Correction, as the executive head of the department, to direct the total operations and management of the department by establishing procedures as set forth in this policy.

## II. PURPOSE

The purpose of this policy is to provide guidance on standardizing preventative maintenance practices and procedures within the Ohio Department of Rehabilitation and Correction (ODRC) to maintenance staff to help extend the life of buildings and assets within the prisons.

## III. APPLICABILITY

This policy applies to ODRC employees involved in the planning and management of facility maintenance.

## IV. DEFINITIONS

The definitions for the below listed terms can be found at the top of the ODRC policies page on the ODRC Intranet at the following:

### [Definitions Link](#)

- **Bromine**
- **Dead Leg**
- **Emergency Repair**
- **Free from Chlorine**
- **General Work Order**
- **General Work Order Log**
- **Non-Routine**
- **Oxidizing Biocide**
- **Preventative Maintenance (PM)**
- **Preventative Maintenance Administrator**
- **Preventative Maintenance Staff**
- **Preventative Maintenance Work Order Log**
- **Water Systems**

**V. POLICY**

It is the policy of ODRC that all prisons have a written plan for preventative maintenance of the physical plant and assets which shall include provisions for emergency repairs and/or replacement in life-threatening situations.

**VI. PROCEDURES****A. Preventative Maintenance Plan Development**

All prisons shall develop a written plan for preventative maintenance of the physical plant which shall include utilization of an approved CAMS electronic management system to log preventative maintenance tasks and maintenance schedules to reflect the following:

1. Frequency of inspection/maintenance.
2. Task location.
3. Task description with detailed instructions.
4. Date task performed.
5. Maintenance area assigned to complete task (i.e., plumbing, electric).
6. Maintenance staff members assigned to complete the task.
7. Emergency repairs; and
8. Emergency replacements.

**B. Preventative Maintenance, Non-Routine and Emergency Repair Monitoring**

1. All prisons shall utilize an approved CAMS electronic management system. These programs are to include at a minimum, the following information:
  - a. Date of work order request.
  - b. Date maintenance received the work order.
  - c. Work order priority level, to include life-threatening issues when identified.
  - d. Name of employee and department requesting the work.
  - e. Brief description of the work request.
  - f. Maintenance staff assigned to complete the work order; and
  - g. Date the work order was completed.
2. The facility's maintenance department supervisor/designee shall also maintain an electronic general work order log to track general work order requests and completed assignments. This log shall include, at a minimum, the information as indicated in section VI.B.2.a-g above.
3. Once the general work order is submitted, the maintenance supervisor/designee will assign a prioritization level to the general work order, to include if identified as being related to life-threatening issues.
4. Any Fire/Safety/Sanitation Monthly Inspection Reports (DRC1257) identifying a need for repairs or replacement shall be forwarded by the prison's safety & health coordinator to the building maintenance superintendent and considered a general work order request.

The superintendent shall review the Fire/Safety/Sanitation Monthly Inspection Reports (DRC1257) and input information an approved CAMS electronic management system as a general work order for repair. The superintendent will assign the prioritization level and assess whether it should be added as a recurring preventative maintenance task.

### **C. Preventative Maintenance Reporting**

1. The building maintenance superintendent shall provide a weekly work order progress report to the department heads responsible for the fiscal and operations areas (i.e., business administrator, deputy warden of Operations, deputy warden of Special Services).
2. The building maintenance superintendent shall meet quarterly with department heads responsible for the fiscal and operations areas to review completed work based on the PM program and chart the outlook projection plan for the upcoming quarter. This review shall include the following:
  - a. Work order log,
    - i. Work Orders completed
    - ii. Work Orders pending
  - b. Pending projects,
  - c. Maintenance progress,
    - i. Number completed.
    - ii. Number pending
  - d. Preventative maintenance responsibilities, and
  - e. Outstanding critical work
    - i. Include related delay justifications.

### **D. Water Systems**

All facilities shall follow specific warranty and manufacturer's guidelines for maintenance of water systems based on the type of water distribution system installed. The building maintenance superintendent/designee shall input manufacturer's guidelines into an approved CAMS electronic management system to establish maintenance schedules.

1. Legionella Water Safety and Risk Mitigation
  - a. Potable Water Controls at Fixtures [per Resource OSHA Technical Manual Section III: Chapter 7 (1998) and ASHRAE Guideline 12 (2000)].
    - i. Maintain water storage tanks at a minimum of 140 degrees. For facilities without storage tanks, ensure the outgoing supply temperature is also a minimum of 140 degrees.
    - ii. Measure hot-water system controls at furthest end of system and in hot water return as measured after a 1-minute flush and again after a 2-minute flush.
    - iii. Verify and record free chlorine and ensure samples are  $\geq 0.2$  ppm after a 1-minute flush and again after a 2-minute flush.

- iv. Measure cold-water system controls at furthest end of system as measured after a 1-minute flush.
    - a) Verify and record the temperature -  $\leq 80^{\circ}\text{F}$ .
    - b) Verify and record free chlorine -  $\geq 0.5$  ppm.
    - c) Record information on Hot Water Holding Tanks System Log (DRC 2215).
  - v. All tests are to be completed weekly by the building maintenance superintendent/designee per the CDC guidelines at three (3) different locations of the distribution system and recorded on the Hot Water Holding Tanks System Log (DRC2214) and Chlorine Residual Log (DRC2215).
  - vi. Chlorine testing is to be conducted with a Chlorometer.
- b. Dead Legs
- i. Eliminate dead legs where possible.
  - ii. Dead legs should be flushed a minimum of twice per week.
- c. Ice Machines
- i. Carbon Filters are NOT to be utilized.
  - ii. Changing filters and cleaning are to be conducted per manufacturers recommendations.
- d. Water Event Response Plan (positive legionella's case, loss of pressure, pipe break either planned or unplanned, unoccupied area or turbid water at multiple fixtures).
- i. Flush each fixture until clear and free chlorine residual is detected.
  - ii. Remove aerators / shower heads and clean as required.
  - iii. No sooner than 24 hours after flushing, collect sample for testing.
  - iv. Notify clinical personnel of event and potential for illness.
2. Cooling Tower Controls (Resource OSHA Technical Manual Section III: Chapter 7, ASHRAE Guideline 12, ASHRAE 188, CTI)
- a. Water Treatment of Cooling Towers
- i. An oxidizing biocide, preferably bromine is fed continuously by an automatic controller that monitors and records free chlorine and/or ORP levels. A minimum residual of 0.4 ppm should always be free of chlorine.
  - ii. At least twice a week, operating personnel must test and log control levels on Cooling Tower Log (DRC2247).
  - iii. Once a month the water treatment service contractor or qualified staff member will:


- a) Test water (including an HPC test).
  - b) Review logs; and
  - c) Verify controls are within the required limits.
- b. Maintenance
- i. Cooling tower is cleaned, disinfected, and tested per Cooling Technology Institute Guideline Best Practices for Control of Legionella, 2008.
    - a) At least twice a year, prior to initial startup of the cooling system begins and after shutdown in the fall, cleaning and disinfecting shall occur.
    - b) Prior to startup of tower, if it has been offline five (5) or more days, cleaning and disinfecting shall be conducted.
    - c) Outside contractor must complete testing before any startup.
3. Clinical Controls
- a. Institutions shall have a method in place for providing surveillance of unexpected cases of pneumonia.
  - b. Institutions shall have a plan in place for responding to a case of Legionnaires' disease. The facilities health care administrator (HCA) shall follow the process of contacting the local health department with any positive legionella's case.

**Attachments:**

Appendix A            Preventative Maintenance Local Policy Template

**Referenced Forms:**

Fire/Safety/Sanitation Monthly Inspection Reports	DRC1257
Hot Water Holding Tanks System Log	DRC2214
Hot Water and Cold-Water System Log	DRC2215
Cooling Tower Log	DRC2247

 <b>Facility Location</b> <hr/>	<b>SUBJECT: Preventative Maintenance Plan</b>	
	<b>RELATED ACA STANDARDS: 4-4139, 4-4139-1, 4-4218</b>	
	<b>RELATED DRC POLICY: 21-CAM-12</b>	
<b>NUMBER:</b>	<b>PAGE</b>	<b>OF PAGES</b>
<b>EFFECTIVE DATE:</b>	<b>APPROVED:</b>	
<b>POSITION OF REVIEWER:</b>	<b>Signature</b>	<b>Date</b>

**I. AUTHORITY**

This policy is issued in compliance with Ohio Revised Code 5120.38 which delegates to the Managing Officer the authority to manage all aspects of the institution.

**II. PURPOSE**

The purpose of this policy is to establish the facility’s procedures for standardizing preventative maintenance practices and procedures within (*enter facility name*). The procedures will guide all (*enter facility name*) staff, to include independent contractors, in overseeing maintenance practices to help extend the life of buildings and assets within the facility.

**III. APPLICABILITY**

This policy applies to all persons employed by (*enter facility name*) and independent contractors involved in the planning and management of facility maintenance.

**IV. DEFINITIONS**

**General Work Order** - A request submitted via a Work Order Request (DMH-0108) or a Fire/Safety/Sanitation Monthly Inspection Report (DRC1257) identifying a need for repairs or replacement.

**General Work Order Log** - An electronic log used to manage general work order tasks generated by submitted General Work Orders.

**Preventative Maintenance (PM)** - The systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects.

**Preventative Maintenance Administrator** - The CAMS designee responsible for the implementation, audit procedures, training, and oversight of the preventative maintenance program.

**Preventative Maintenance Work Order Log** - An electronic log used to manage preventative maintenance tasks.

**Water Systems** - Includes hot and cold water distribution.

## V. POLICY

It is the policy of the (*Facility Name*) to have a written plan for preventative maintenance of the physical plant and assets. This plan shall include provisions for emergency repairs or replacement in life-threatening situations. The preventative maintenance plan shall be reviewed on an annual basis.

## VI. PROCEDURES

### A. Preventative Maintenance Plan Development

1. The building maintenance superintendent/designee shall review the manufacturer warranty for maintenance guidelines for all facility assets and input information into an approved CAMS electronic management system to establish a preventative maintenance schedule. This includes when assets/equipment were replaced.
2. The maintenance department shall utilize the approved CAMS electronic management system to log preventative maintenance tasks and maintenance schedules to reflect the following:
  - a. Frequency of inspection/maintenance;
  - b. Task location;
  - c. Task description with detailed instructions;
  - d. Date task performed;
  - e. Maintenance area assigned to complete task (i.e., plumbing, electric);
  - f. Maintenance staff members assigned to complete the task;
  - g. Emergency repairs; and
  - h. Emergency replacements.
3. Facility staff shall be trained and advised to submit Work Order Requests via electronic forms by completing a Work Order Request (DMH-0108 E) and routing it to the respective department head.

### B. Preventative Maintenance, Non-Routine and Emergency Repair Monitoring

1. The maintenance department shall utilize the approved CAMS electronic management system for reviewing maintenance schedules.
2. The maintenance department shall utilize the approved CAMS electronic management system to manage preventative maintenance which shall include, at a minimum, the following information:

- a. Date of work order request;
- b. Date maintenance received the work order;
- c. Work Order priority level, to include life-threatening issues when identified;
- d. Name of employee and department requesting the work;
- e. Brief description of the work request;
- f. Maintenance staff assigned to complete the work order; and
- g. Date the work order was actually completed.

The prison's maintenance department supervisor/designee shall also maintain an electronic General Work Order Log to track General Work Order requests and completed assignments. This log shall include, at a minimum, the information as indicated in section VI.B.2.a-g above. If the maintenance department supervisor/designee elects to do so, the general work order side of the approved CAMS electronic management system may be utilized.

3. Once the General Work Order is submitted, the maintenance supervisor/designee will assign a prioritization level to the General Work Order, to include if identified as being related to life-threatening issues.
4. Any Fire/Safety/Sanitation Monthly Inspection Reports (DRC1257) identifying a need for repairs or replacement shall be forwarded by the safety & health coordinator to the building maintenance superintendent and considered a General Work Order request. The superintendent shall review the report (DRC1257) and input information into the approved CAMS electronic management system as a General Work Order for repair. The superintendent will assign the prioritization level and assess whether it should be added into the approved electronic management system as a recurring preventative maintenance task.

### **C. Preventative Maintenance Reporting**

1. The building maintenance superintendent shall provide a weekly work order progress report to the department heads responsible for fiscal and operations areas (i.e., business administrator, DWSS, DWO).
2. The building maintenance superintendent shall meet quarterly with the department heads responsible for the fiscal and operations areas to review completed work based on the PM program and chart the outlook projection plan for the upcoming quarter. This review shall include the following:
  - a. Work order log;
    - i. Work Orders completed;
    - ii. Work Orders pending.
  - b. Pending projects;
  - c. Maintenance progress;



- i. Number completed;
- ii. Number pending.
- d. Preventative maintenance responsibilities; and
- e. Outstanding critical work;
  - i. Include related delay justifications.

**D. Water Systems**

*Facility Name* shall follow specific warranty and manufacturer's guidelines for maintenance of water systems based on the type of water distribution system installed. The building maintenance superintendent/designee shall input manufacturer's guidelines into the approved CAMS electronic management system to establish maintenance schedules.