Title: **Preventative Maintenance Intervals**
Department: **Engineering Services**
Effective Date: **December 18, 2017**

PURPOSE

To establish a procedure for establishing and maintaining Preventive Maintenance (PM) program maintenance intervals and monitoring accomplishment of PM tasks in accordance with those intervals.

PROCEDURES

Identifying Equipment/Assets – For every item of new, modified, relocated, refurbished, or newly identified equipment, asset or component of major system, the responsible Engineering Services Trade Shop (or designated PM Shop) will survey the item and fill out an Equipment/Asset Record Sheet contained in Appendix A. The completed form will be routed to the Shop Supervisor for initial review and then forwarded to the responsible Assistant Director for Approval. Following Assistant Director approval, the completed form will be routed to PPM Work Control for entry into the PPM Computerized Maintenance Management System (CMMS). PPM Work Control will enter the Equipment/Asset Record Sheet information into the CMMS

Establishing PM Intervals – As part of the process of identifying equipment and assets, the responsible Engineering Services Assistant Director, in conjunction with the Shop Supervisor and Trade Staff, will identify the appropriate PM Interval from the table below and note this interval on the Equipment/Asset Record Sheet.

PM Intervals
Hourly
Daily
Weekly
Bi-Weekly
Semi-Monthly
Monthly
Bi-Monthly
Quarterly
Semi Annually
Annually
Annually/Every +

Appendix B, Suggested Maintenance Intervals provides a guideline for determining PM frequencies for equipment and assets. Other recommendations may be found from listed references.

Reviewing PM Intervals – At the start of every fiscal year, the Director, Engineering Services will conduct a 100% review of PM intervals by distributing to each responsible shop a complete listing of their assigned PM tasks. The responsible shop supervisor, in conjunction with their Assistant Director will review every PM task and validate or make a recommendation to change the current interval, based upon such factors as current equipment condition, remaining service life, current and anticipated service conditions and any work order notes from previous PMs. The Assistant Director will forward to Work Control a listing of any PM Tasks for which the interval is to be changed and Work Control will make the corresponding changes in the CMMS.

Monitoring Compliance with PM Intervals – Annually, each Assistant Director, Engineering Services will obtain a list of all the PM Work Orders that have been generated during the previous year for their respective shops. They will then conduct a desk audit from a random sample of PM work orders, examining such items as current Status and Complete Date (if applicable), Completion Remarks and Notes, as well as any information about any materials ordered against the PM work order. The appropriate Assistant Director will resolve any discrepancies and may conduct a field audit to reconcile outstanding concerns as appropriate. The field audit will attempt to verify quality of the work, timeliness, and actual completion (or reason for non-completion) of the surveyed PM work orders.

REFERENCES

NASA Standardized Facilities Preventive Maintenance Work Task Guide - https://www.hq.nasa.gov/office/codej/codejx/Assets/Docs/Standardized%20FacPreventiveMaintWorkTaskGuideJun01.pdf.

APPROVED _____ 12-18-17

Jason R. Wang, Senior Director — Date

APPENDIX

APPENDIX A
EQUIPMENT/ASSET RECORD SHEET

The attached Equipment/Asset Record Sheet is to be used to record equipment data. This information is needed to develop preventive maintenance (PM) scheduling and detailed PM checklists for all Group 1 equipment campus wide.

The record sheets are to be completed as follows: (PLEASE ***PRINT*** CLEARLY)

- The person preparing the record must indicate their name and the date. This is needed in the event that questions arise while entering the recorded data into the PM database.
- Indicate the building name and the floor (level).
- Fill out the remaining fields with as much information as possible and route the completed form to PPM Work Control.

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EQUIPMENT/ASSET RECORD SHEET

PHYSICAL PLANT MANAGEMENT (PREVENTIVE MAINTENANCE)

Name of Preparer	
Date	
Building	
Floor	
Equipment ID	
Description	
Status	
Parent	
Parent Equipment Description	
Location	
Location Description	
Room	
Manufacturer	
Model Name/#	
Mobile/Fixed?	
Year Model	
Inactive Yes/No	
PPM EMS Point	
Serial Number	
License Number	
CSUN Asset Tag #	
Priority	
Purchase Price	
Vendor	
Purchase Date	
Warranty Date	
Hazardous Material Yes/No	
Tag #	
Equipment Type	
Chargeback Yes/No	
Master Yes/No	

When complete, route form to PPM Work Control.

APPENDIX B
SUGGESTED MAINTENANCE INTERVALS

- **Air Compressors** – Semi Annually +. Centrifugal, Rotary Screw, and Reciprocating Piston Air Compressors.
- **Alarm Systems** – Quarterly.
- **Backflow Preventers** – Annually.
- **Circuit Breakers and Switchgear** – Every 3 years +. Circuit Breakers: Low Voltage (600 Volts and below) – Air and Molded Case. Medium Voltage (601 to 69,000 Volts) – SF6, Oil Filled, Air, and Vacuum. High Voltage (above 69,000 Volts) –SF6 and Oil Filled. Switchgear: Low Voltage and Medium Voltage.
- **Cranes, Elevators and Lifts** – Monthly **+.** Cranes and Hoists, Lift Platforms, Elevators, Escalators, Slings.
- **Electrical Power Low Voltage Distribution** – Annually +. 240/120 Volt Electrical Panel, 600 Volt Electrical Panel, 240/120 Volt Disconnect Switch, 600 Volt Disconnect Switch, 600 Volt Motor Control Center.
- **Electric Power Distribution Relays/Meters** – Annually +. Solid-state; Protective Relays, Metering, and Event Recording. Electromechanical; Protective Relays. Analog; Metering and Event Recording.
- **Electrical Transformers –** Annually +. Facility Transformers (Dry Type and Oil Filled), Distribution Transformers (Dry Type, Silicone and Mineral Oil Filled), Power Transformers (Oil Filled).
- **Emergency Exits** – Annually.
- **Filters** – Annually. Water Cooler, Process Water Filter, and Air-Cooled Equipment/Air Compressors.
- **Fire Detection/Protection** – Annually. Fire Detection Systems (control panels, smoke and heat detectors), Fire Protection – Water Systems, Wet and Dry Chemical.
- **Fire Extinguishers** – Monthly +.
- **Interior Area Emergency Lighting** – Annually.
- **Overhead Doors** – Annually.
- **High Voltage Electric Power Distribution Switches** – Annually. Medium Voltage (601 to 69,000 Volts) – air knife switch, disconnect air switch, load-break SF6, load-break oil, load-brake vacuum.
- **HVAC** – Quarterly +. Direct Exchange Air Conditioning (A/C) Units (Room A/C Units, Heat Pump Units, Split-System Condenser Units), Package A/C Units, Air Handling Units and Fan Coil Units, Fans, Variable Air Volume (VAV) Terminals, Heaters, Chillers (Centrifugal, Reciprocating, Rotary Screw, and Absorption).
- **Lighting –** Monthly.
- **Motors** – Annually +.
- **Pumps** – Semi Annually +.
- **Valves** – Annually. Fire Control Valves, Isolation Valves, and Control Valves.