SOP Template: Preventive Maintenance Scheduling and Planning

This SOP details the process for **preventive maintenance scheduling and planning**, including the identification of critical equipment, establishing maintenance intervals, resource allocation, task prioritization, documentation and tracking of maintenance activities, and continuous improvement through performance monitoring. The goal is to minimize equipment downtime, extend asset lifespan, and ensure operational efficiency by proactively addressing maintenance needs before failures occur.

1. Purpose

To outline the procedures for planning, scheduling, executing, and documenting preventive maintenance (PM) activities to ensure reliability, safety, and longevity of critical equipment.

2. Scope

This SOP applies to all equipment and assets under the department's maintenance responsibility.

3. Responsibilities

- **Maintenance Manager:** Oversee PM program, ensure compliance, allocate resources.
- **Maintenance Planner/Scheduler:** Develop and update PM schedules, assign tasks.
- **Technicians:** Execute PM tasks, record completion and findings.
- **Operators:** Report equipment anomalies, assist in maintenance planning as needed.

4. Procedure

1. **Identification of Critical Equipment**
    - Maintain an updated asset register including all equipment and machinery.
    - Determine criticality based on impact, failure history, and operational importance.
2. **Establishing Maintenance Intervals**
    - Refer to manufacturer recommendations and historical data.
    - Set intervals (e.g., weekly, monthly, quarterly) for each asset type.
3. **Resource Allocation**
    - Assess manpower and skill requirements for each PM task.
    - Ensure availability of necessary tools, spare parts, and materials.
4. **Task Prioritization**
    - Prioritize activities based on safety, criticality, and regulatory compliance.
    - Use risk assessments to address high-priority assets first.
5. **Scheduling and Communication**
    - Create and update a master PM schedule (e.g., Gantt chart, calendar).
    - Communicate schedule to all relevant stakeholders in advance.
6. **Execution and Documentation**
    - Technicians perform PM tasks as per schedule and procedures.
    - Record details of work performed, findings, and corrective actions in CMMS or logbooks.
7. **Tracking and Continuous Improvement**
    - Monitor PM completion rates and analyze performance metrics (e.g., MTBF, downtime).
    - Review and adjust maintenance plans based on feedback and data.

5. Documentation

- Asset Register
- Preventive Maintenance Schedule
- Work Orders

- Completed PM Checklists
- Equipment History Records

6. Performance Monitoring

- Track KPIs: PM compliance, equipment downtime, mean time between failures (MTBF), etc.
- Regularly review data and conduct root cause analysis for major failures.

7. Review and Continuous Improvement

- Annual review of PM program effectiveness and update SOP as needed.
- Solicit feedback from maintenance personnel and stakeholders for process improvements.

8. Revision History

Revision	Date	Description	Author	Approved By
1.0	2024-06-11	Initial release	[Name]	[Name]