SOP Template: Investigation and Root Cause Analysis Steps

This SOP details the **investigation and root cause analysis steps**, outlining a systematic approach to identify the underlying causes of incidents or problems. The procedure includes initial incident notification, data collection, evidence preservation, interviewing involved personnel, and analyzing contributing factors. It emphasizes the use of tools such as fishbone diagrams and the 5 Whys technique to determine root causes. The goal is to implement corrective actions that prevent recurrence, improve safety, and enhance operational efficiency.

Procedure Steps

1. **Incident Notification**
    - Receive and log the incident or problem report.
    - Notify responsible team members and relevant stakeholders.
2. **Initial Assessment**
    - Conduct a preliminary review of the incident or problem.
    - Determine the scope, potential risks, and urgency.
3. **Data Collection & Evidence Preservation**
    - Gather all relevant documentation, records, and system logs.
    - Preserve physical and digital evidence to prevent loss or tampering.
4. **Interviewing Involved Personnel**
    - Interview individuals directly involved and witnesses.
    - Document statements objectively for further analysis.
5. **Analysis of Contributing Factors**
    - Identify all potential contributing factors (technical, human, process, environmental, etc.).
    - Utilize systematic analysis tools (see below) to organize findings.
6. **Root Cause Determination**
    - Apply root cause analysis methods to identify underlying causes (not just symptoms).
    - Document evidence linking root causes to the incident/problem.
7. **Implementation of Corrective Actions**
    - Develop and assign corrective action tasks to address root causes.
    - Monitor implementation and measure effectiveness.
8. **Documentation & Reporting**
    - Compile a comprehensive investigation report including findings, root causes, and actions taken.
    - Distribute to relevant stakeholders and use for future training.
9. **Review and Continuous Improvement**
    - Conduct post-implementation review to ensure recurrence prevention and improvement.
    - Update SOPs and training materials as needed.

Recommended Analysis Tools

- **Fishbone (Ishikawa) Diagram:** Visual tool for categorizing potential causes of problems.
- **5 Whys Technique:** Repeatedly asking "Why?" to drill down to the root cause.
- **Failure Mode and Effects Analysis (FMEA):** (Optional) Systematic method for evaluating processes to identify where and how they might fail.

References

- Root Cause Analysis Handbook
- Company policies on safety, incident reporting, and corrective actions