

SOP Template: Follow-up Investigation and Root Cause Analysis Procedures

This SOP details the **follow-up investigation and root cause analysis procedures**, encompassing steps to systematically identify underlying issues after an incident, methods for data collection and analysis, techniques to determine contributing factors, documentation requirements, corrective action planning, and monitoring of implemented solutions. The goal is to ensure thorough investigations that prevent recurrence and promote continuous improvement in safety and operational efficiency.

1. Purpose

To outline a consistent, systematic approach to follow-up investigations and root cause analysis after incidents or near-misses, ensuring effective identification of underlying factors and implementation of corrective and preventive measures.

2. Scope

This SOP applies to all reported incidents, near-misses, and identified safety or operational deficiencies within the organization.

3. Responsibilities

- **Supervisors/Managers:** Initiate investigation, assign investigation team, and oversee corrective actions.
- **Investigation Team:** Conduct data collection, interviews, analysis, and report preparation.
- **Safety/Quality Department:** Review investigation reports, ensure documentation, and monitor completion of corrective actions.
- **Employees:** Participate in interviews and provide information as requested.

4. Procedure

1. Immediate Actions

- Secure the scene to preserve evidence (if applicable).
- Provide necessary medical or emergency response.
- Notify relevant personnel and departments.

2. Preliminary Data Collection

- Record date, time, location, and individuals involved.
- Gather available documentation (logs, photos, equipment, etc.).

3. Investigation Planning

- Define the scope and objectives of the investigation.
- Assign investigation team members and responsibilities.

4. Information Gathering and Analysis

- Conduct interviews with witnesses/personnel.
- Review relevant records, procedures, and training documents.
- Observe work practices and environmental conditions.
- Apply root cause analysis techniques (e.g., 5 Whys, Fishbone Diagram, Fault Tree Analysis).

5. Determination of Contributing Factors

- Identify direct, indirect, and root causes.
- Assess system failures, human factors, and organizational issues.

6. Documentation

- Document findings using the standard investigation report template (see Section 6).
- Include evidence, analysis, and conclusions.

7. Corrective and Preventive Actions

- Develop action plan with specific, measurable actions, responsible persons, and deadlines.
- Implement corrective/preventive measures as approved by management.

8. Monitoring and Follow-up

- Track progress of action items to completion.

- Evaluate effectiveness of implemented solutions.
- Document follow-up findings and close case when appropriate.

5. Techniques for Root Cause Analysis

- **5 Whys Analysis:** Ask "Why?" iteratively to reach underlying cause.
- **Fishbone (Ishikawa) Diagram:** Visualize potential causes in categories (methods, materials, people, equipment, etc.).
- **Fault Tree Analysis:** Map out logical sequences leading to incident.
- **TapRoot, FMEA, or other suitable structured approaches as needed.**

6. Investigation Report Template

Section	Description
Incident Details	Date, time, location, personnel involved, brief summary
Immediate Response	Actions taken (first aid, containment, notifications)
Evidence Collected	Documents, photos, equipment, witness statements
Analysis	Description of investigation methods and findings
Root Cause(s)	Analysis of contributing and systemic factors
Corrective Actions	Action items, responsible persons, completion dates
Follow-up and Status	Verification of corrective actions, effectiveness review
Signatures	Investigator(s), Manager, Safety/Quality Department

7. Records and Documentation

- All investigation records must be stored in accordance with company document control procedures.
- Maintain records for audit purposes and continuous improvement review.

8. Review and Continuous Improvement

- Periodic review of incidents and trending analysis.
- Update SOP as needed based on lessons learned and best practices.