Chapter 06: Safety and Compliance

01. Safety Incident Reporting and Investigation

Manage safety incident reporting and investigation to identify root causes and implement corrective actions.

Roles and Responsibilities

Safety Officer:

- Monitor safety compliance across all operations
- Conduct safety investigations and reporting
- Coordinate safety training and certification
- Ensure regulatory safety compliance
- Authorize safety equipment and improvements

Operations Leader:

- Oversee daily operations and coordinate between departments
- Authorize emergency response procedures and resource allocation
- Monitor safety compliance and operational excellence
- Coordinate scheduling across departments for operational coverage
- Review billing disputes and approve service adjustments
- Ensure regulatory compliance across all operations

Process Steps

Immediate Response Phase

- **Secure the incident scene** - Ensure safety of personnel and preserve evidence for investigation
- **Provide immediate medical attention** - Coordinate emergency medical response if injuries occurred
- **Notify leadership** - Contact Operations Leader and Safety Officer within 30 minutes of incident
- **Document initial conditions** - Photograph scene, equipment positions, and environmental factors
- **Preserve evidence** - Collect and secure physical evidence, witness statements, and relevant documentation
- **Report to authorities** - Notify FAA, OSHA, or other agencies as required within regulatory timeframes

Investigation Planning Phase

- **Assemble investigation team** - Select qualified team members based on incident type and complexity
- **Define investigation scope** - Establish objectives, timeline, and resource requirements
- **Review initial information** - Analyze incident reports, witness statements, and available evidence
- **Develop investigation plan** - Create systematic approach including interviews, testing, and analysis
- **Coordinate with external agencies** - Interface with FAA, OSHA, or insurance investigators as needed
- **Establish communication protocols** - Define internal and external communication procedures

Evidence Collection Phase

- **Conduct scene examination** - Perform detailed analysis of incident location and contributing factors
- **Interview witnesses** - Document statements from all personnel with relevant information
- **Review maintenance records** - Examine equipment history, inspection records, and compliance documentation
- **Analyze operational procedures** - Evaluate adherence to established procedures and training requirements
- **Collect physical evidence** - Secure damaged equipment, samples, or other physical evidence for analysis
- **Document environmental conditions** - Record weather, lighting, noise, and other environmental factors

Analysis and Root Cause Determination Phase

- **Analyze collected evidence** - Evaluate all information to identify contributing factors and causal relationships
- **Determine root causes** - Use systematic analysis methods to identify underlying system failures
- **Evaluate procedure effectiveness** - Assess adequacy of existing procedures and training programs
- **Identify systemic issues** - Look for patterns or trends that may indicate broader safety concerns
- **Develop findings and conclusions** - Document investigation results with supporting evidence
- **Prepare investigation report** - Create detailed report meeting regulatory and company standards

Corrective Action Development Phase

- **Identify corrective actions** - Develop specific actions to address root causes and prevent recurrence
- **Prioritize recommendations** - Rank actions by safety impact, feasibility, and resource requirements
- **Assign responsibility** - Designate specific individuals responsible for implementing each action
- **Establish timelines** - Set realistic deadlines for corrective action completion
- **Define success metrics** - Establish measurable criteria for evaluating corrective action effectiveness

- **Obtain leadership approval** - Secure authorization for recommended actions and resource allocation

Implementation and Follow-up Phase

- **Implement corrective actions** - Execute approved actions according to established timelines
- **Monitor progress** - Track implementation status and address obstacles or delays
- **Verify effectiveness** - Assess whether corrective actions achieve intended safety improvements
- **Update procedures** - Revise operational procedures, training programs, or policies as needed
- **Communicate lessons learned** - Share investigation findings and safety improvements with all team members
- **Close investigation** - Document completion of all actions and file final investigation report

Tools and Resources

Investigation Tools:

- Digital cameras and measuring devices
- Evidence collection bags and labels
- Interview forms and witness statement templates
- Root cause analysis worksheets

Documentation Systems:

- Incident reporting database
- Investigation tracking spreadsheets
- Regulatory reporting forms
- Corrective action tracking system

Reference Materials:

- FAA Advisory Circular AC 150/5200-37 - Airport Safety Management Systems
- OSHA Incident Investigation Guidelines
- Company safety policies and procedures
- Industry safety best practices

Common Issues and Solutions

- **Issue:** Witnesses reluctant to provide statements due to fear of blame
- **Solution:** Emphasize just culture policy focusing on system improvement rather than individual

punishment; ensure confidentiality protections

Issue: Investigation delayed due to regulatory agency involvement

Solution: Maintain parallel internal investigation while coordinating with external agencies; establish clear communication protocols

Issue: Corrective actions not implemented within established timelines

Solution: Assign specific ownership with regular progress reviews; escalate delays to leadership for resource allocation

Regulatory References

- **14 CFR Part 139.303** - Personnel requirements for airport operators
- **14 CFR Part 830** - Notification and reporting of aircraft accidents or incidents
- **29 CFR 1904** - Recording and reporting occupational injuries and illnesses
- **FAA Advisory Circular AC 150/5200-37** - Introduction to Safety Management Systems for Airport Operators
- **OSHA 29 CFR 1960.70** - Agency responsibilities for occupational safety and health