SOP Template: Quality Control and Inspection Protocols

This SOP defines **quality control and inspection protocols** to ensure that products meet established standards and customer expectations. It includes procedures for systematic inspection, testing, defect identification, corrective actions, documentation, and continuous improvement. The goal is to maintain high product quality, reduce defects, and enhance overall operational efficiency through consistent monitoring and evaluation.

1. Purpose

To establish systematic processes for quality control and inspection in order to ensure product conformity, reduce defects, and improve operational efficiency.

2. Scope

This procedure applies to all stages of the production process, from the receipt of raw materials to final product delivery.

3. Responsibilities

Role	Responsibilities
Quality Control (QC) Personnel	Perform inspections, testing, and record results.
Production Supervisors	Ensure production adheres to quality standards; assist in inspections.
QA Manager	Review QC reports, lead corrective actions, and oversee continuous improvement.
Operators	Conduct self-inspection at workstations and report defects.

4. Definitions

- **Quality Control (QC):** Procedures to ensure product quality and compliance with standards.
- **Inspection:** Examination and assessment of products or materials to verify conformance.
- **Defect:** Deviation from specified requirements or standards.

5. Procedures

1. **Incoming Material Inspection:**
    - Receive and document all incoming materials.
    - Inspect for quality, quantity, and conformance to specifications.
    - Record findings and segregate non-conforming materials.
2. **In-Process Inspection:**
    - Perform random and scheduled inspections at critical stages of production.
    - Verify compliance with process controls and quality requirements.
    - Document deviations and report to supervisor.
3. **Final Product Inspection:**
    - Inspect finished products against acceptance criteria.
    - Test functional and aesthetic attributes as applicable.
    - Approve, quarantine, or reject products based on results.
4. **Defect Identification & Corrective Action:**
    - Document type and cause of defects.
    - Analyze root causes and implement corrective and preventive actions.
    - Monitor effectiveness and update procedures as needed.
5. **Documentation:**
    - Record all inspection results in QC logs or digital systems.
    - Maintain records for traceability and audits.
6. **Continuous Improvement:**
    - Review inspection data to identify trends and improvement opportunities.
    - Conduct regular quality meetings for ongoing training and process optimization.

6. Records

- Inspection reports/logs
- Non-conformance reports
- Corrective and preventive action records
- Training records

7. References

- Product specifications
- ISO 9001 Quality Management Systems
- Internal quality manuals

8. Revision History

Version	Date	Description of Change	Author
1.0	2024-06-10	Initial SOP Release	QA Department

Note: This SOP should be reviewed annually or upon significant changes in product/process.