ChecklistGuro

SPC (Statistical Process Control) Checklist

Show only Checklist

Display Style
Default

Process Definition & Selection

Ensuring the correct process is being monitored with SPC.

Process Being Monitored?

- [ ] Machining
- [ ] Assembly
- [ ] Welding
- [ ] Painting
- [ ] Other

Process ID/Name

Write something...

Brief Description of the Process

Write something...

Sample Size (n)

Enter a number...

Measurement System?

- [ ] CMM
- [ ] Calipers
- [ ] Micrometer
- [ ] Visual Inspection
- [ ] Other

Rationale for Selecting this Process for SPC

Write something...

Frequency of Measurement/Sampling

Enter a number...

Data Acquisition & Recording

Focuses on the accuracy and consistency of data collection.

Sample Size (n)

Enter a number...

Sampling Frequency (samples per unit of time)

Enter a number...

Measurement System (e.g., calipers, micrometer, gauge)

- [ ] Calipers
- [ ] Micrometer
- [ ] Go/No-Go Gauge
- [ ] Coordinate Measuring Machine (CMM)
- [ ] Other

Measurement Procedure Description

Write something...

Date of Data Collection

Enter date...

Time of Data Collection

Enter time...

Operator ID (if applicable)

Enter a number...

Notes on Data Acquisition (e.g., equipment issues, operator concerns)

Write something...

Calibration Certificate (if applicable)

Upload File

Control Chart Creation & Setup

Details regarding the initial establishment of control charts.

Process Characteristic Being Monitored

- [ ] Length
- [ ] Diameter
- [ ] Weight
- [ ] Surface Roughness
- [ ] Color
- [ ] Other (Specify in LONG_TEXT)

Description of Process Characteristic (for 'Other' selection)

Write something...

Number of Data Points for Initial Control Limit Calculation

Enter a number...

Subgroup Size (if applicable)

Enter a number...

Type of Control Chart Selected

- [ ] X-bar and R Chart
- [ ] X-bar and S Chart
- [ ] Individuals Chart
- [ ] p-Chart
- [ ] np-Chart
- [ ] c-Chart
- [ ] u-Chart

Rationale for Chart Type Selection

Write something...

Raw Data File (for Control Chart Setup)

Upload File

Date Control Chart Established

Enter date...

Control Limit Verification & Adjustment

Ensuring control limits are appropriate and validated.

Initial Subgroup Size Used for Control Limit Calculation

Enter a number...

Number of Data Points Used for Initial Control Limit Calculation

Enter a number...

Method Used to Calculate Initial Control Limits (e.g., X-bar and R, X-bar and S)

- [ ] X-bar and R
- [ ] X-bar and S
- [ ] Moving Range
- [ ] Other (Specify in Long Text)

If 'Other' was selected for calculation method, please specify.

Write something...

Date of Initial Control Limit Validation

Enter date...

Number of Valid Data Points Collected for Control Limit Verification

Enter a number...

Was there any evidence of non-random variation during verification?

- [ ] Yes
- [ ] No

If 'Yes' to non-random variation, describe the nature of the variation and corrective actions taken.

Write something...

Were Control Limits Adjusted based on Verification?

- [ ] Yes
- [ ] No

If yes, describe the changes made to the Control Limits and justify the change.

Write something...

Ongoing Monitoring & Chart Interpretation

Regular assessment of process behavior based on control chart data.

Date of Chart Review

Enter date...

Time of Chart Review

Enter time...

Number of Points Reviewed

Enter a number...

Chart Stability Assessment (Stable/Not Stable)

- [ ] Stable
- [ ] Not Stable

Summary of Observed Trends/Patterns

Write something...

Number of Points Outside Control Limits

Enter a number...

Description of any identified Special Causes

Write something...

Corrective Actions Taken (if applicable)

- [ ] No Action Required
- [ ] Investigated and documented
- [ ] Corrective Action Implemented

Reviewer Signature

Out-of-Control Action & Investigation

Procedures for responding to points outside control limits.

Describe the out-of-control point (value, sample size, date/time).

Write something...

Date of Out-of-Control Point

Enter date...

Time of Out-of-Control Point

Enter time...

Potential Causes Investigated (list all considered)

Write something...

Root Cause Category (Select all that apply)

- [ ] Material
- [ ] Equipment
- [ ] Method
- [ ] Manpower
- [ ] Environment
- [ ] Measurement System

Detailed Description of Root Cause Determination

Write something...

Corrective Actions Taken (Specific actions to address root cause)

Write something...

Sample Size of Next Measurement After Correction

Enter a number...

Verification of Corrective Action Effectiveness (how was it validated?)

Write something...

Signature of Investigator

Process Improvement & Optimization

Using SPC data to drive improvements in the manufacturing process.

Describe the identified process improvement opportunity (based on SPC data).

Write something...

What is the target improvement in the key process characteristic (e.g., reduction in defects, increase in throughput)?

Enter a number...

Detail the proposed actions to address the improvement opportunity.

Write something...

What is the priority level of this improvement action?

- [ ] High
- [ ] Medium
- [ ] Low

Planned start date for the improvement action.

Enter date...

Target completion date for the improvement action.

Enter date...

Which SPC charts were impacted by the issue?

Document any statistical analysis supporting the proposed changes.

Write something...

Documentation & Record Keeping

Maintaining accurate records of SPC activities and findings.

Date of Control Chart Creation

Enter date...

Time of Data Collection (Start)

Enter time...

Summary of Out-of-Control Events and Corrective Actions

Write something...

Control Chart Image (Current)

Upload File

Number of Samples Collected Per Shift/Period

Enter a number...

Notes on Calibration Records (Equipment Used)

Write something...

Review Frequency (Control Charts)

- [ ] Daily
- [ ] Weekly
- [ ] Monthly

Reviewer Signature

Description of any process changes implemented and their potential impact on SPC.

Write something...

Training & Competency

Verifying that personnel are adequately trained in SPC principles and procedures.

Number of Employees Trained in SPC Principles

Enter a number...

Date of Last SPC Training Session

Enter date...

Training Delivery Method (e.g., Classroom, Online, On-the-Job)

- [ ] Classroom
- [ ] Online
- [ ] On-the-Job
- [ ] Hybrid

Summary of SPC Training Curriculum

Write something...

SPC Roles & Responsibilities Covered in Training?

- [ ] Operator
- [ ] Technician
- [ ] Engineer
- [ ] Supervisor

Which SPC tools were covered?

- [ ] Control Charts (X-bar and R charts)
- [ ] Pareto Charts
- [ ] Histograms
- [ ] Scatter Plots
- [ ] Cause-and-Effect Diagrams (Fishbone)
- [ ] Capability Analysis

Documentation of Training Assessments/Quizzes

Write something...

Frequency of Refresher Training?

- [ ] Annually
- [ ] Bi-Annually
- [ ] As Needed

Software & Tool Validation

Ensuring SPC software and tools are functioning correctly and are appropriately validated.

Software Version Number

Enter a number...

Last Validation Date

Enter date...

Description of Validation Process

Write something...

Number of Data Points Simulated/Tested

Enter a number...

Validation Status

- [ ] Passed
- [ ] Failed
- [ ] Pending

Validation Report (PDF/Excel)

Upload File

Details of Any Failures & Corrective Actions

Write something...

Data Integrity Check - Pass/Fail

- [ ] Pass
- [ ] Fail