

Action Plans & Action Forms

What is an Action Plan?

An action plan is just our way of saying: “Something didn’t go the way it should have. We understand why, we fixed it, and we made sure it won’t keep happening.”

You’ll usually document this on an action form, which becomes part of our ISO 17025 records. Labs are required to have a procedure for nonconforming work that includes having a plan, as well as retaining the records of the actions taken.

A documented plan describing:

- What will be done
- Who will do it
- When it will be completed
- How effectiveness will be verified

The official lab record/form used to document:

- The issue
- Root cause analysis
- Actions taken
- Verification of effectiveness



Key Definitions

Nonconformity - A failure to meet a requirement (ISO 17025, internal procedure, customer requirement, or technical standard).

Correction - Immediate action taken to fix the problem (e.g., recalibrating equipment, correcting a report).

Corrective Action - Action taken to eliminate the root cause of a nonconformity to prevent recurrence.

When Do You Need an Action Plan?

You need an action plan when:

- An audit (internal or external) finds a nonconformity
- There's a technical issue that could affect measurement validity
- A procedure wasn't followed
- A pattern or trend starts showing up
- A customer complaint points to a system problem
- Management requests corrective action

Important:

Not every issue requires corrective action. You don't need one every time you make a small mistake.

Simple mistakes that are corrected and unlikely to recur may only require correction and documentation.

ISO/IEC 17025 Requirements

Nonconforming Work

You must:

- Identify nonconforming work
- Take action to control it
- Evaluate the impact
- Decide if work must be halted or recalled
- Keep records

Corrective Action

You must:

- React to the nonconformity
- Determine the root cause
- Implement corrective action
- Review effectiveness
- Update risks and opportunities if needed



Completing an Action Form (Step-by-Step)

Step 1: Description of the Issue

- State what happened
- Include: Date, area/process affected, how it was identified

Good Example:

During an internal audit on 01/15/2026, it was identified that thermometer calibration records were missing uncertainty statements.

Bad Example:

Paperwork issue.

Step 2: Immediate Correction (If Applicable)

- What was done right away to fix the issue?

- This does not replace corrective action.

Example: Missing uncertainty values were calculated and added to existing calibration records.

Step 3: Root Cause Analysis

Ask: Why did this happen?

Common tools:

- 5 Whys
- Cause-and-effect (fishbone)

Examples of Acceptable Root Causes:

- Personnel were not trained on the updated calibration record template.
- Training didn't cover the updated requirement
- The procedure wasn't clear
- The form didn't prompt the user
- There was no review step

Unacceptable Root Cause:

Human error. (Human error is a symptom, not a root cause.)

Step 4: Corrective Action Plan (How We Prevent Recurrence)

Define:

- What will prevent recurrence
- Who is responsible
- Completion date

Example:

- Update training module on calibration documentation
- Retrain all metrologists by March 15
- Revise procedure to require peer review

Step 5: Implementation Evidence

If you can't show it, the action isn't complete, no matter how good your intentions were. If it isn't documented, it didn't happen.

Attach or reference:

- Updated procedures
- Training records

- Revised forms
- Emails or meeting notes

Step 6: Effectiveness Review

Answer:

- Did the action work?
- How do you know?

Examples of verification:

- Follow-up audit
- Record review after 30–90 days
- Confirming no repeat findings

Common Mistakes

- Writing vague actions (“be more careful”)
- Skipping root cause analysis
- Closing actions without evidence
- Confusing correction with corrective action
- Missing due dates or responsible people

Metrologist Responsibilities

As a metrologist, you are expected to:

- Report issues promptly
- Participate honestly in root cause analysis
- Complete assigned actions on time
- Provide documentation when requested
- Understand how your work ties to ISO 17025 compliance

Action plans are not punishment. They are evidence that the lab:

- Understands its processes
- Manages risk
- Continuously improves

Tips from metrologists around the country

- A well-written action plan builds credibility with auditors and protects the lab.
- Ensure the action plan is going to be measurable, achievable and cost effective.
- Ask yourself: Are measurement results or core lab equipment/functions impacted by the issue or the solution?
- Follow this step by step:
 - WHAT? What is the goal of the action plan & what is the estimated costs (broken down by personnel, equipment, improvement)
 - HOW? What steps will be taken to achieve this goal/accomplishment (this includes lists of equipment, reagents (if needed), test design, how it saves either cost, time, or fit into new administrative goals
 - WHO? Assign/list who will be the leader and team. (if details are needed, use this outline to justify any hiring of full-time or part time/temporary personnel)
 - WHEN? What is the timeline? Are there time checks? Are there things that need to be done prior to next step being done? What are those? (typically, long term and short term, depending on project/plan)
- A lab's action plan item to improve, prevent, or correct should be precise in its wording, documented, noted as to how it was or will be addressed, and its completion date to provide evidence of the lab's continued improvement.

Additional Resources

ISO/IEC 17025:2017

[NIST Webinar: Document Control and Record Keeping](#)

[NIST Action Plan Form and Log](#)

