

Everything You Wanted to Know About Corrective Action, But Were Afraid to Ask!

The corrective action process is a powerful tool for making your company more efficient, productive, and profitable.

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WHAT IS CORRECTIVE ACTION? By definition, corrective action is the measure undertaken to identify and eliminate the source or root cause of a nonconformance to prevent its recurrence.

What it isn't: Corrective action is not remaking or reworking a part to bring the nonconformance back into specifications. That is a corrective measure or remedial action. Fixing an error only addresses the problem on its "local" level and does nothing to address what prompted it to happen in the first place, nor does it provide a means to prevent its recurrence.

How does the corrective action process work?

No matter the media used, the process is essentially the same.

- **Document** what was specified versus what was found. This can be a customer or procedural requirement, drawing characteristic, in contrast to what is observed. This validates a specified requirement that was not achieved. (Hint: Be clear in communicating this information so that there is no misunderstanding about the issue or what was observed.)
- **Establish a time frame** in which to respond to the corrective action request (CAR).
- **Assign responsibility** or "ownership." This is not assigning blame, but rather defining who will research the issue to help assure a satisfactory resolution is found and implemented.
- **Research and document** the root cause. Asking "why?" to the first few responses offered can often help determine the true root cause. Not identifying the true root cause will most likely guarantee that it will return, and you will have to analyze it again. (What fun!)
- **List the actions** to be taken to prevent recurrence.
- **Communicate** the corrective action and resolution to the appropriate people, including the management team. Enlist management in promoting awareness. Communicating the issue can trigger the corrective thought process in other personnel or departments. This could bring to light an even better solution, or uncover additional issues that were not identified during the original remediation efforts. Communicating CARs and their associated results can also identify where it may have

impacted a different department or process.

- **Follow up** the measures taken to assure that the resolution was implemented and *effective*. Don't be tempted to prematurely close the issue solely to "get it off the books." Follow-up helps assure the measures taken were appropriate and effective in preventing recurrence. It may be realized, at a later date, that measures were not as effective as anticipated. A different strategy may be required. When you are confident the issue has been resolved, document it. This is objective evidence that the system is implemented and functioning.

When should I use the corrective action process?

Corrective action should be applied:

- Whenever there is a nonconformance that is repetitive in nature. This can be identified by periodically reviewing nonconformance summaries for trends.
- Whenever a nonconformance is found within the quality management system, during an internal audit, or during the day-to-day execution of the system.
- In response to a customer complaint.

Which method should I use to document my corrective action requests (CARs)?

While there is no requirement that a specific type of CAR record be used, it certainly is beneficial to select and use one. There is a sample blank CAR on our web site (www.qmconline.org/code/resources) that follows a logical format in addressing the requirements of the process. Any convenient means that clearly document all steps performed is acceptable.

Who should issue corrective actions?

Typically, most companies like to keep this at the managerial level. When a CAR is issued, it is typically passed onto the management representative or another responsible designee, who then will review the situation to make a determination as to whether it warrants the use of the corrective action process. If it is determined that corrective action is appropriate, the management representative may act as the coordinator, assuring that the process is

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Here are some examples of the corrective action process in action.

Example 1

The QC inspector has written a nonconformance report that is determined to be of a magnitude to warrant initiating the corrective action process.

Description of Condition/Evidence

A heavy section column has been assembled with a base plate 3" thick in accordance with the shop print. QC's print shows the base plate to be 1.75" thick.

Disposition

Investigation uncovers that holes for field connections have been drilled along the length of the column section. Rework, repair, or customer approval for "use as nonconforming" are options, but are not pursued in this case due to fitting concerns. The column assembly cannot be salvaged, so it is scrapped and new materials are ordered.

Additional Commentary

The total cost of material and labor for this nonconformance are in excess of \$12,000. Per the company's corrective action procedure, a CAR is generated and addressed to the detailing department.

Root Cause

It was determined that the column was made from a drawing that was

not the latest revision. The detailing department's research into the root cause shows the drawing distribution procedure bypassed a temporary second-shift fitter.

Remedial Action

In order to correct this, an extra copy of all revised drawings will be added to the drawing package issued to the part-time fitter on second shift.

Action to Prevent Recurrence

The procedure is changed, approved, and communicated through training. The QC manager follows up and randomly samples (more than once) the second shift fitter's drawing package during the next six months to ensure the corrective action taken was implemented and is effective.

In this incident, scrapping the beam was not corrective action; scrapping the beam was merely remedial action. Though it was necessary, it likely would have happened again if that was all that was done.

"Those who cannot learn from history are doomed to repeat it."

—George Santayana

Example 2

The purchasing agent approaches the shop foreman to inquire why there has been a significant increase in grinding wheel purchases, grinder purchases, and grinder repairs. The cost is so significant that it initiates the corrective action process.

Description of Condition/Evidence

The cost of grinding wheels, grinder repairs, and requests for grinder purchases has increased ten-fold in the past quarter.

Disposition

Material coming from the burning table has gouges, notches, and roughness greater than that allowed by AWS code and customer specifications. The edges must be ground to remove the discontinuities.

Additional Commentary

The total cost of material and service fees, in addition to labor costs for these non-conformances, are found to be in excess of \$10,000 for the quarter. Per the company's corrective action procedure, a CAR is generated and addressed to the shop foreman.

Root Cause

It was determined that lack of preventative maintenance on the burning equipment, poorly written work instructions, and insufficient training for a new employee operating the burning table were among the

main causes for the edge roughness discontinuities.

Remedial Action

The equipment was serviced to repair/replace the defective unit. Grinding out of the discontinuities was continued.

Action to Prevent Recurrence

An experienced operator along with the foreman and current operator teamed up to write a work instruction for the correct operation of the burning table. The maintenance mechanic was also consulted to devise a preventative maintenance schedule. A "grinding" or "rework" code was established to capture labor costs for time not allowed for in the original estimate. These cost codes, along with labor hours, are reviewed during the weekly production meetings.

In this incident, grinding out the discontinuities was not corrective action; the grinding was only remedial action. By establishing a "rework" code, additional hidden costs were found in other areas, saving the company additional money.

"A dollar in sales is about five cents today, but a dollar in savings is a whole dollar!"

—Anonymous

Example 3

During an internal audit, it was determined that the company goals and initiatives that had been revised by management were not communicated to the organization as a whole. Because this finding occurred during the internal audit, the corrective action process was initiated. (CA and non-conformance do not only relate to product.)

Description of Condition/Evidence

Management changed the goals of the company to parallel the new corporate initiatives.

Disposition

The level of the previous goals was documented and a record was kept for reference.

Additional Commentary

The company was recently acquired by a large corporation. This division's goals have become part of the corporate vision and a mission has been established at the divisional level.

Root Cause

Discussion with corporate headquarters concerning the company goals

had just concluded. It was discovered during the internal audit.

Remedial Action

A meeting was scheduled to communicate the new corporate initiatives with all employees.

Action to Prevent Recurrence

The new goals will now be posted by management on the employee bulletin board, with levels updated monthly. This will be monitored along with the "no lost time" accident rating posting so it is routine. The quarterly "state of the union" address will have the goal levels as an action item to communicate to all employees.

In the incident above, simply posting the new goals was remedial action—not corrective action. Monitoring the level of the goal at the same time as the safe days posting will give an added assurance that there will be an "eye on the prize."

"A goal properly set is halfway reached."

—Abraham Lincoln

followed and that the issue is laid to rest. Upon closure, a response is given to the issuer showing what measures and steps were taken.

Tell Me More!

OK, now that you know the basics of what corrective action is, you need to know when and when not to apply it. First, it is not necessary to apply the corrective action process to every nonconformance that comes down the pike. If you do, you'll bury yourself in paperwork and the process then becomes inefficient. Let's face it: people are going to make mistakes. Corrective action should not be seen as a disciplinary process, and it should not be allowed to evolve into that. It will become counter-productive and make the process seem personal. It will appear as if the intention is to point fingers and assign blame, rather than to identify and eliminate the sources of nonconformities. Remember: it is about the *process*, not the *people*.

You must identify the root cause of the non-conformances in your processes for your system to become more productive, effective, and efficient. You can then take the necessary steps to eliminate these profit leaks. With rework, you are actually paying triple the cost.

Now you have a choice. You can throw your money away by constantly just "fixing" things or you can concentrate your efforts in eliminating the source.

In closing this article, I leave you with these thoughts:

- The corrective action process is one of many powerful tools that, if used effectively, will not only help your company improve the quality of its product and processes, but also increase its efficiency and productivity. This translates into greater customer satisfaction, repeat business, and lower costs. Lower costs lead to increased profits and greater market share.
- Let's face it: the CAR process means change, and many people don't like change. We are all basically creatures of habit. However, remember this old saying: *If you do what you've always done, you'll get what you've always gotten.*

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