Five Key Elements of an Ergonomics Process Audit

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We are the largest consulting team of Board Certified Professional Ergonomists in North America. Humantech consultants combine expertise in ergonomics with practical industry experience and the skills of professional services delivery.

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About this Book

This e-book is the fifth in a five-part series exploring Humantech’s Engagement Model. It was created to help you implement a new ergonomic improvement process, restart one that has fizzled, or improve an existing one. Throughout this series, we’ve shared key points we’ve learned from our experience assisting organizations worldwide. We hope this information will help you succeed.

The Engagement Model we use is simple, yet proven and effective. It looks like this:

The first four e-books discussed Gaps & Fit, Foundation, Leadership, and Deployment. This e-book focuses on the final step, Review, which includes conducting an audit of your ergonomic improvement process to determine progress, how well you are meeting your plan and standard, and to determine if any changes are needed to improve the process.

We invite your comments, questions, and reactions to this e-book on our blog, The 30-Inch View. And if you enjoy what you read, please feel free to share it with colleagues and co-workers.
Introduction

Review is the final step in the Engagement Model, but it’s a continuous step, one that is repeated regularly, at least annually. The purpose of this step is to check the progress and status of the ergonomic improvement process to determine if all elements are in place and effective and if goals and measures are being met. It is also a good time to identify opportunities to improve and to acknowledge and share success. If this sounds familiar to you, it should; the process used to audit the ergonomics process should be the same process used to audit your quality or safety management system.

In the first e-book in this series, Gaps & Fit, we described the continuous improvement model or Plan-Do-Check-Act cycle. Within the Check phase is an opportunity to check the progress of the ergonomics process. Other tactical methods of checking include follow-up MSD risk assessments and regular review of process measures by leadership.

For an ergonomic improvement process, auditing serves several purposes:

- It establishes a way to hold leaders and organizations accountable for the content and results of their ergonomic improvements.
- It helps you maintain focus on all elements of the process.
- It provides a check point from which to correct deficiencies and revise improvement plans.

All of these are critical elements that help sustain the ergonomics process, even when there are time restrictions, staffing and leadership changes, and fluctuating business priorities. The bottom line is that you’ve got to take the time to stop and evaluate your progress so that you stay on track to achieve your goals. Whether climbing a mountain, diving on a reef, or running a marathon, it is beneficial to regularly check your direction and progress, evaluate the surrounding conditions, and even look back to see from where and how far you’ve come. This same check point is a critical element of sustaining an ergonomics process—conducting an audit.
What is a Process Audit?

A comprehensive audit is an essential part of any management system. Both ANSI Z-10 and draft ISO 45001, Safety Management System standards, define an audit as follows:

“A systematic, independent, and documented process for obtaining information and data and evaluating it objectively to determine the extent to which defined audit criteria are fulfilled.”

This definition is consistent with other country and global safety, environmental, and quality systems. Whether you call it an audit, a review, a process check, or something else, it is a comprehensive, objective, and documented evaluation of your ergonomics process that will help you improve its effectiveness and compliance.

You may notice many similarities between a Gap Analysis (the first step of the Engagement Model) and an audit. Both are systematic evaluations with similarities in how the evaluation is conducted and how the results are communicated. However, there are differences in what is evaluated.
How is an Audit Process Conducted?

The how of conducting an audit of your ergonomic improvement process follows a few common steps:

- **Planning.** Coordinating logistics, including defining the scope of the audit; defining time and schedule; identifying key people to interview, documents to review, and locations to see; and agreeing on how to present results. This is also the time to request copies of, or access to, key records to review prior to the on-site visit.

- **Opening.** The on-site portion of an audit always goes more smoothly when there is an opening conference to introduce all people involved; review the purpose, scope, methods, and interview schedule; and to address questions for all participants.

- **Conducting.** The bulk of the auditor’s time on site will be spent gathering information, probing for understanding, and verifying findings. This usually involves in-person interviews, review of key program documents and records, and seeing the workplace and improvements. A critical part is compiling the findings into results; this includes collating the information collected, validating the findings, and comparing the findings with the audit criteria. Although some of this happens in the mind of the auditor(s) during the interview process, additional off-site time is typically required to ensure that all aspects of the site process and the criteria have been investigated.

- **Closing.** The on-site activities should conclude by sharing a high-level summary of findings. This is not essential, but it’s a courtesy to the people who have been audited. This is an opportunity for the auditors to communicate—and verify—some of their initial findings.

- **Documenting.** Finally, the findings and results of the audit must be documented. This will take time, as it is the written record with which to communicate to the site about the status of its program, strengths, outages, and guidance on what to do to meet the criteria.
The Five Key Elements

The planning, opening, conducting, closing, and documenting steps provide a brief overview of the audit process, and not a comprehensive guide on how to conduct one. However, there are five key elements to consider in any ergonomics process audit.

**Establish the Criteria**

A fair and effective audit must be based on clearly defined audit criteria. The criteria must be understood by the auditors and the organization being audited. The criteria should have been established during the second step of the Engagement Model (Foundation) when requirements for a company ergonomic improvement process are defined in a standard.

The requirements of a company’s ergonomics standard provide one part of audit criteria. The other two parts are the improvement plans established by the organization being audited, and their history of measures and progress to the goal. These site-/organization-specific plans and metrics should have been established by site leadership during the Foundation and Leadership steps of the Engagement Model.
Identify Capable Auditors

The skills of people conducting a Gap Analysis were described in the first e-book of this series, *Four Key Elements of an Ergonomics Gap Analysis*. These are the same skills and practices used by people auditing the ergonomics process. However, for the audit, there is one major difference: the auditor must be disengaged from the activity being audited. ANSI/AIHA Z10-2012 defines an audit as “A systematic, independent, and documented process…” In this case, independence means not being responsible for the activity being audited or free of bias and conflict of interest. In other words, **you cannot audit your own work**. This definition raises the bar on auditor selection and practice.

Select process auditors based on their auditing and investigation skills, proximity or independence from the organization being audited, working knowledge of the audit criteria and expectations for the ergonomics process, and their ability to collate information and provide objective evaluation and direction. An excellent practice for developing auditors new to the criteria for ergonomics is to have them shadow experienced auditors. Having new auditors observe the audit process and then phasing in their participation not only builds their capability and objectivity, but also strengthens their confidence and skills.

“You should not ask questions without knowledge.”

W. Edwards Deming

There are three general types of auditors: those internal to the organization being audited (for example, same site but in a different department), those external to the organization (for example, different site within the company), and third-party auditors. Third-party auditors are typically contracted from an outside source to bring an “outside perspective” and new view. An audit team can be comprised of people from some or all of these sources. The audit criteria and process align them to work as a team, providing a mix of perspectives and skills.

If you’re using auditors from within your company (internal or external to the organization), be sure that they have the skills, preparation, and empowerment to conduct this evaluation. Many organizations include the audit of their ergonomics process into their existing EHS audit or quality audit. This is an effective practice when the ergonomics process is established and sustained. But for newly deployed ergonomic improvement processes (see e-book, *Four Steps to Deploying Your Ergonomics Process*), the first two to three audits should focus on the criteria for ergonomics. This approach helps the site critique and improve its new ergonomics process and helps auditors develop their knowledge and abilities specific to ergonomics.
Complete a Comprehensive Audit

Similar to conducting a Gap Analysis (see e-book, Four Key Elements of an Ergonomics Gap Analysis), an audit of an organization’s ergonomic improvement process must be comprehensive, objective, and fair. The three primary ways to collect and verify information for the audit are to review key program documents and records, interview people, and observe the workplace.

The criteria for the audit should include:

- **What must be in place?** These are the requirements of the company ergonomics standard (the audit criteria).
- **What did we commit to do?** This includes the goals and plans set by the site.
- **Are we meeting our plans and goals?** This includes metrics used to track site progress.

Interviews with key people are a large part of an audit. The questions you ask and how you ask them will affect the information you collect. The trick is to ask open questions, which do not have a specific answer but allow the person you are interviewing to respond openly about what they know. For example, open questions might start with “Tell me about your involvement in the ergonomics process.” Or “You mentioned new equipment review. Tell me how ergonomic design is included in that.” After asking open questions, use more focused questions to explore if the criteria is met, such as “You said you conduct assessments. How do you do that and how are the results used?” Finally, be sure to validate your findings. You might say “Please show me some of the documented assessments you’ve completed.” This process of asking probing questions helps gather proof of compliance to the audit criteria.
As you interview people in different roles, the questions you ask and the criteria you explore will change. You’ll need to plan each interview to ensure you talk with the right people about the portion of the ergonomic improvement process with which they are involved. For example, with the top site manager or sponsor, explore the goal, metrics, and plan he or she has established, and how others are held accountable for results. With ergonomics team members, focus on understanding their process and tools for conducting assessments and leading workplace improvements. And for engineers, you might focus on how they include ergonomic design guidelines in new and modified tools and equipment. Gaining the right information from the right people will allow you to compile a comprehensive picture of the site’s ergonomic improvement process, its successes, and its outages.
Communicate Results

An important, and usually most pressing, element of an audit is communicating the findings. The key stakeholders want to know how well their ergonomic improvement process is progressing, what is being done well, and where the opportunities for improvement are. Consider what results are communicated, how they will be communicated, and to whom. If you already have an EHS or Quality audit process in place, consider using that same process for your ergonomic improvement process so that you maintain a consistent and familiar reporting format, messaging, and scoring.

A big challenge for the audit team is to distill all of the information and findings from the audit into a clear, understandable message for the organization. If scores are assigned to each element of the audit (a common practice), use graphic images to visually show the results of all elements of the ergonomics process. A radar or spider chart is one way to illustrate results by process element.
For all criteria audited, determine how well the site meets the requirements. This is best communicated in a table, by criteria, listing a numerical score, color (for example, red, yellow, green), or a descriptor such as “Meets Expectations” and “Needs Attention.” These types of scoring methods quickly communicate where the site ergonomics process meets or does not meet the requirements of the standard. It helps the reader identify which elements of the ergonomics process need improvement. A good auditor provides recommendations on what specifically needs to be done to make those improvements.

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W. Edwards Deming
Take Action

Following completion of the audit, and receiving and understanding the findings, site leadership must take action to address any areas of non-compliance. An audit is a good thing; it helps a site or organization improve the compliance and effectiveness of its ergonomics process.

Working from the audit report and recommendations, site leadership should discuss and agree on changes needed to make their ergonomics process complete, effective, and in compliance with the requirements of the standard. This means going back to the plans they established in the Leadership phase, and modifying those plans to further improve the ergonomics process. This is the continuous part of continuous improvement, and is indicated in the Engagement Model by the feedback arrow from Review back to Leadership.

“It is not by muscle, speed, or physical dexterity that great things are achieved, but by reflection, force of character, and judgment.”

Marcus Tullius Cicero

A good audit team will have provided recommendations to guide site leadership in determining:

- What do we need to do and/or do differently to meet the requirements of the standard?
- What can we learn or leverage from other locations?
- Do we need to change our focus, resources, and plans for the ergonomics process?
- What are the next steps, who owns each, and when do we want each completed?
Final Thoughts

The actions of checking your progress, reviewing against plans and criteria, and using that information to make changes in moving forward are essential for keeping your ergonomic improvement process on track as business needs, conditions, and people change. This review step is not a one-time event; it should occur regularly, at least annually, to sustain your ergonomics process. Completing the review and feedback is a milestone in the timeline of your ergonomics process. It indicates when you have moved from deploying the process to sustaining the process.

“To progress is always to begin always to begin again”

Martin Luther

Additional Resources
