OSHAcademy
Occupational Safety & Health Training

The Ultimate SAFETY MANAGEMENT SYSTEM Audit

PREVIEW

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A comprehensive safety management system (SMS) audit to help your organization conform to OSHA, ANSI, CSA, and international occupational safety and health management consensus standards.

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PREVIEW

The Ultimate Safety Management System Audit

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INTRODUCTION

Occupational Health and Safety (OHS) is concerned with protecting the health and safety of employees in the workplace. The goal of a Safety Management System (SMS) is to provide OHS programs, plans, policies, processes, procedures, and practices that foster a safe work environment.

Purpose and Application

The purpose of this audit is to measure the degree to which the employer is using accepted practices for occupational health and safety management. The audit applies to all organizations, both in the public and private sectors, that have or want to develop and deploy a world-class safety management system and culture.

The audit evaluates five domains to arrive at a numerical rating for each of the elements in an effective SMS.

These SMS elements are discussed in:

- ANSI/AIHA Z10-2012, Occupational Health and Safety Management Systems - http://www.ansi.org
- OSHA's Voluntary Safety and Health Program Management Guidelines, Program Evaluation Profile, SHARP and VPP programs - http://www.osha.gov
- CAN/CSA Z1000-06, Occupational Health and Safety Management - http://www.csagroup.org
- BS OHSAS 18001, Occupational Health and Safety Management - http://www.bsigroup.com/

These standards include valuable management principles to help organizations develop methods to continuously improve the performance of their SMS, and we encourage you to purchase copies of these documents if applicable to your workplace.

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Continuous Improvement

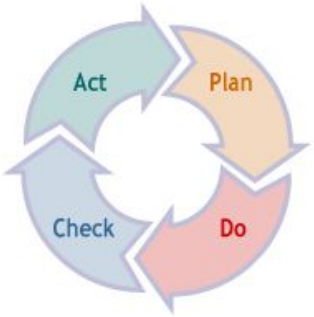
THE PLAN-DO-CHECK-ACT (PDCA) IMPROVEMENT CYCLE

The PDCA model is widely used by organizations and is encouraged as a basic systems improvement model used to construct the audit. The model was originally developed by Dr. Walter A. Shewhart and promoted by Dr. W. Edwards Deming. Using the PDCA model, Dr. Deming helped transform the economy of Japan after WWII.

Most consensus standards have adopted a requirement for organizations to incorporate the PDCA continuous model for establishing and implementing the SMS.

The four phases of the PDCA cycle are discussed in more detail below.

Phase 1: Plan



Design and develop the change or test. In this phase, SMS plans, policies, programs, processes, procedures, and practices are designed and developed.

- Purpose: Take time to plan thoroughly the proposed change before it's implemented.
- Methods: Pinpoint specific conditions, behaviors, and results you expect to see. Plan to ensure a successful transition as well as change.

Phase 2: Do

Deploy the change or test. In this phase, the SMS designs are initially deployed.

- Purpose: Deploy the change or test it on a small scale.
- Methods: Education and training, communicate the change to the workforce to help everyone transition. Keep the change small to better measure independent/dependent variables.

Phase 3: Check

Study the effects or results of the change or test. In this phase, conduct a review of the data to analyze and evaluate SMS deployments.

- Purpose: To discover what was learned, what went right or wrong.
- Methods: Statistical process analysis, surveys, questionnaires, interviews.

Phase 4: Act

Adopt, abandon, or repeat the cycle. In this phase, the improved deployments are:

- adopted,
- further developed and tested, or
- removed from the SMS.

8D MODEL FOR SMS IMPROVEMENT

This audit also uses language from OSHAcademy's unique 4-phase model for establishing and implementing an effective SMS. Each phase in the process includes two primary processes in creating and improving the SMS.

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The four phases in the 8D Model are discussed in greater detail below.

Phase 1: Design and Delegate

During this first phase in the process, gather a team of managers, supervisors, and employees who volunteer to discuss the establishment of the SMS.

Design

The first step in this phase is to design or create the overall "big picture" or structure for your organization's SMS, the primary elements, and the specific components with each element. Examples include:

1. Mission and vision statements
2. Safety goals, objectives and performance measures
3. Safety positions, duties and responsibilities of line and staff
4. Programs to include in the SMS
5. Strategic Safety Plan

Delegate

Once it has been determined which components are applicable to the nature and size of the organization, delegate responsibilities to managers, supervisors, and employees to develop and prepare written drafts of the various safety programs, plans, programs, processes, procedures and practices within the SMS.

Phase 2: Develop and Draft

Now that a basic design of the SMS is completed, it's time to systematically develop specific components or elements.

Develop

In this phase, complete written SMS Plans, Programs, Policies, Processes, Procedures, and Practices.

Draft

The outcome of this phase is a formal comprehensive written SMS Plan containing all components of the SMS. This will serve as the primary document that everyone at all levels in the company will use to help fulfill their safety responsibilities.

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Phase 3: Dedicate and Deploy

After the development phase is completed, dedicate adequate resources to deploy the completed SMS plan to all facilities so everyone has it and can take action.

Dedicate

It's important management display a real commitment to the SMS by dedicating resources which include funding, equipment, education, and training, etc. Make sure everyone has the tools, equipment, materials, time, and they understand the elements of the SMS.

Deploy

At this point, the SMS plan is ready to be activated. Be sure to educate all managers, supervisors, and employees on the components of the SMS and their personal responsibilities within each component. To make sure the deployment was successful, do the following:

- Get feedback from everyone on the success of the deployment.
- Analyze the results of the deployment after a year.
- With the data gathered from your analysis, evaluate the success of the deployment.
- Implement a long-term "continuous improvement" strategic plan.

Phase 4: Dissect and Discover

After the SMS has been initially designed, developed and deployed, it's important to check the results of the deployment by dissecting or analyzing the results.

Dissect

The purpose is to gather data about specific SMS inputs, operations, and outputs in each element to see what works and what doesn't.

Discover

This process of discovery is accomplished by dissecting each element to uncover components that are not working as well as they should and to discover the root causes for the lack of effectiveness or efficiency. This phase is closely associated with the Check phase in Deming's PDCA cycle. The natural next step in the process is to repeat Phase 1 as necessary.

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INSTRUCTIONS

Conducting the Audit

Audit Questions

Read through all of the audit questions before beginning to become familiar with the topic areas that will be covered. Knowing what the topic areas are before beginning the audit will help you plan ahead so you are prepared. As you pre-read the questions, consider taking notes or highlighting anything that is particularly important to your situation.

When you are ready to begin the audit process, you may find it helpful to have a copy of the instructions, domains, and rating system handy in case you need to refer to them along the way.

The Five Domains

This audit evaluates the training program by focusing on five "domains." Domain, as used in this audit, is a specific sphere of activity or area being analyzed. Familiarize yourself with each of the five domains before you begin the audit. You will use the various methods to gather information within each domain.

The Numerical Rating System

Based on your conclusions after analyzing each domain, you will evaluate the domain by assigning it a value using a 0, 1, 3, and 5 point rating system. You will enter the rating in each of the five domain columns. In some cases, one or multiple domains may not be applicable to the question, in which case you should enter "NA" as the value.

After assigning a rating to each of the five domains, you will calculate and enter an average rating or overall score for the question. High or low ratings should include justifications in the comments area.

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The Five Domains

Analyze each of the following five domains to develop a justification for the rating.

Knowledge

Analyze what employees are thinking by conducting surveys and interviews. Do employees have full knowledge, positive attitudes, etc.? High trust and low fear indicate effectiveness. Thoughts are the most direct leading indicator of the effectiveness of a training program.

Behaviors

Observe both employee and manager behaviors and activities. Are they consistent and appropriate? Do they reflect effective safety education and training? Behaviors constitute the next most direct leading indicator of a training program.

Conditions

Inspect the workplace for hazards that might indicate the effectiveness of training. The absence of hazards indicates effectiveness. Behaviors cause conditions in the workplace; hence, they are the next most direct leading indicator of a training program.

Standards

Analyze policies, plans, programs, budgets, processes, procedures, practices, appraisals, job descriptions, rules, etc. Are they informative and directive? Are they clearly and concisely communicated?

Results

Analyze employee performance and training records that validate knowledge, skills and abilities (KSAs) are effectively applied in the workplace. As you repeat this audit over time, continually improving results indicates program effectiveness.

The Rating System

Use the following rating system guidelines to evaluate each of the five domains. Enter a numeric (0, 1, 3, or 5) score under each of the five domain columns (K, B, C, S, and R) for every audit question that applies to your situation. Use the following guidelines for your ratings**.**

- Each numeric rating score should be understood as containing all of the positive factors included in the lower rating scores. For example, a rating of “5” should include all of the positive factors indicated in a “1” and “3” rating.
- The descriptors in each rating illustrate the conditions that should exist in the workplace to justify the score. In exercising your professional judgment, proceed with the understanding that the descriptor that "best fits" will not necessarily match the workplace exactly or in literal detail.

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RATING SCALE AND CRITERIA

0 = Not Present

Analysis indicates the condition, behavior, or action described in this statement does not exist or occur.

1 = Partially Met

Analysis indicates the condition, behavior, or action is partially met. Application is most likely too inadequate to be effective. Workplace conditions, if applicable, indicate improvement is needed in this area. Employees lack adequate knowledge and express generally negative attitudes. Mistrust may exist between management and labor. Employees and managers fail to comply adequately or fulfill their accountabilities. Safety policies and standards may not be clear, concise, fair, informative and directive. Results in this area are inconsistent, negative, and does not reflect continual improvement.

3 = Mostly Met

Analysis indicates the condition, behavior, or action described is adequate, but there is still room for improvement. Workplace conditions, if applicable, indicate compliance in this area. Employees have adequate knowledge and express generally positive attitudes. Some degree of trust between management and labor exists. Employees and managers comply with standards. Leadership is adequate in this area. Safety policies and standards are in place and are generally clear, concise, fair, informative and directive. Results in this area are consistently positive, but may not reflect continual improvement.

5 = Fully Met

Analysis indicates the condition, behavior, or action described is fully met and effectively applied. There is room for continuous improvement, but workplace conditions and behaviors indicate effective application. Employees have full knowledge and express positive attitudes. Employees and managers not only comply, but exceed expectations. Effective leadership is emphasized and exercised. Safety policies and standards are clear, concise, fair, informative and directive, communicating commitment to everyone. Results in this area reflect continual improvement is occurring. This area is fully integrated into line management. Supervisors and managers demonstrate safety leadership by example. Working safely is considered a non-negotiable production/service value.

NA = Not Applicable

If a domain does not apply to a question, you can enter “NA” instead of a numeric value to show it is not applicable. As you pre-read the audit questions, take note of any you think are not applicable. Consider discussing these domains with your audit or safety team to be certain they don’t apply to your situation. It’s okay to mark a domain as “NA,” but only if it is truly not applicable.

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Do not include any domains marked as “NA” in your overall calculation. For example, when calculating the average score for a question, if you and your safety team determine the knowledge (k) domain is not relevant to the question, you would add the applicable scores together and divide by four instead of five.

Calculate the Average Score for the Question

Add up the scores for each of the applicable domains and calculate the average score for that question. Enter the average score for the question under the overall column. This score will give you a good numerical indication of the progress made thus far related to the question.

EXAMPLE 1

Audit Questions	K	B	C	S	R	Overall
a. Is the written SMS plan appropriate to the organization’s OHS risks?	1	3	5	5	3	3.4

EXAMPLE 2

Audit Questions	K	B	C	S	R	Overall
a. Is the written SMS plan appropriate to the organization’s OHS risks?	3	3	3	5	3	3.4

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In these examples, each overall score totals up to 17. The average score for the question is 17 ÷ 5 = 3.4. This score would tell you, overall, the criteria for this question is mostly met, but still needs additional work.

When evaluating your scores, you might find it helpful to also include a note about the range of scores for each question. For example, the range of scores for the first example above is 1 to 5. Compare this to the range of scores in the second example above, which is 3 to 5. Even though the averages are the same, the range highlights the lower score in the first example.

Develop Summary and Recommendations for Each Category

Use the information gathered to develop an evaluation summary for each of the five categories. Include an overall rating for each category with the justification of your findings.

Finally, offer recommendations for improvement. Include draft improvements to policies, programs, plans, processes, procedures, practices, forms, reports, records, and other documents.

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1. MANAGEMENT LEADERSHIP & EMPLOYEE PARTICIPATION

Management must understand the elements of effective leadership and the importance of employee participation in all aspects of the SMS. Management must make a serious commitment to the SMS through providing the necessary time, money and other resources, so employees in all positions at all levels of the organization will want to actively participate.

According to OSHA, Management Commitment and Employee Involvement call for:

- A clearly-stated worksite policy on safe and healthful work and working conditions so all personnel at the site or working for the site understand the priority of safety and health protection.
- A clear goal for the safety and health management system and objectives for meeting that goal so all members of the organization understand the results desired, and the measures needed to achieve them.
- Top management involvement in implementing the system to demonstrate management's commitment.
- Employee involvement in the structure and operation of the system and in decisions that affect their safety and health.
- Assignment of responsibilities for all aspects of the management system, so that managers, supervisors, and employees in all parts of the organization know what they need to do.
- Provision of adequate authority and resources so everyone can meet their assigned responsibilities.
- Holding managers, supervisors and employees accountable for meeting their responsibilities.
- Annual reviews of the system's operations to evaluate success in meeting the goals and objectives so that deficiencies can be identified, and the program and/or the objectives can be revised as needed.

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1.1 Leadership and Culture

Effective safety leadership can and should be demonstrated at all organizational levels. Managers can demonstrate leadership by setting the proper example and organizing the programs within the SMS. Supervisors can demonstrate leadership by directly providing employees the resources, motivation, priorities, and accountability for ensuring their safety and health. Employees can demonstrate leadership through personal example and involvement. Everyone understands the value of creating and fostering a strong safety culture within the company.

In a world-class SMS, managers, supervisors, and employees demonstrate—by involvement, support, and example—the primary importance of safety and health for everyone on the worksite. Performance is consistent and sustained and has improved over time.

Audit Questions	K	B	C	S	R	Overall
a. Do managers and supervisors serve as a motivating force for an effective SMS?						
b. Do managers and supervisors exhibit successful leadership methods, techniques, or results?						
c. Does management include site safety and health issues on agendas of management operations meetings?						
d. Do employees demonstrate personal leadership through daily example?						

Comments: _____

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