

Based on Professor David L. Goetsch's
Implementing Total Quality Management

Overview of TSM

- What is TSM
- Translating TSM into action
- Fundamental Elements of TSM
 - Strategic Basis
 - Performance Orientation
 - Leader Commitment
 - Teamwork Orientation
 - Employee Empowerment
 - Scientific Decision-Making
 - Continual Improvement
 - Comprehensive Training
 - Unity of Purpose
- Rationale for TSM

Implementing Total Safety Management

Implementing TSM: The Model

1. Gain Leader Commitment
2. Establish the Steering Committee
3. Mold the Steering Committee into a Team
4. Provide Safety and Health Awareness Training
5. Develop the Vision and Guiding Principles
6. Develop the Mission and Objectives
7. Communicate and Inform
8. Identify Strengths and Weaknesses
9. Identify Advocates and Resisters
10. Benchmark Initial Employee Perceptions
11. Tailor the Implementation
12. Identify Specific Improvement Projects
13. Establish, Train, and Activate Improvement Project Teams
14. Activate the Feedback Loop
15. Make TSM Part of the Culture

The quality of the work environment is a major factor in an organization's ability to accomplish its mission. Consequently safety and health should be viewed as a mission issue, rather than just a compliance issue. Total Safety Management applies the principles of Total Quality Management to safety management as an aid in applying risk management.

What is TSM?

Total Safety management (TSM) is a performance-oriented approach to safety management that involves the total organization in establishing and maintaining a safe and healthful work environment.

The Guiding Principles of TSM are

- Performance-Orientation
- Peak Performance
- Continual Improvement

Fundamental Elements of TSM

TSM differs in several ways from traditional safety and health management. In order to appreciate these differences, one must understand the fundamental elements of TSM which are as follows:

- Strategically Based
- Performance Oriented
- Dependent on Leader Commitment
- Teamwork Oriented
- Committed to Employee Empowerment
- Involves Comprehensive On-going Training
- Promotes Unity of Purpose

Implementing TSM:

Steps in the TSM Implementing Process

Planning and Preparation

1. Gain Leader Commitment
2. Establish the TSM Steering Committee
3. Mold the Steering Committee into a team
4. Give the Steering Committee Safety and Health Awareness training
5. Develop the Organization's Safety and Health Vision and Guiding Principles
6. Develop then Organization's Safety and Health Mission and Objectives
7. Communicate and Inform

Identification and Assessment

8. Identify the Organization's Safety and health Strengths and Weaknesses
9. Identify Safety and Health Advocates and Resisters
10. Benchmark Initial Employee Perceptions concerning the work Environment
11. Tailor Implementation to the Organization
12. Identify Specific Improvement Projects

Execution

13. Establish, Train And Activate Improvement Projects Teams
14. Activate the Feedback Loop
15. Establish a TSM Culture

IMPLEMENTING TSM

Step 1:

Gain Leader Commitment

Leaders must ensure that the following happens:

- Safety and health must be included as high priority concerns in the organization's strategic plan
- Resources must be allocated to cover implementation cost (e.g., planning, training).
- Employee performance relative to safety and health must be monitored, evaluated, and rewarded as appropriate.
- Employees must be shown that safety is a must no matter how pressed the organization becomes to meet deadlines.

ASSESS THE ORGANIZATION'S SAFETY CULTURE

Organizational Values

Yes no

- 1. Does the organization's commander or director have a positive attitude toward safety and health issues?
- 2. Do all members of the organization's leadership team have positive attitudes toward safety and health issues?
- 3. Do leaders and supervisors appear to view the work environment as having an effect on employee performance?
- 4. Is there a safety-and-health guiding principle in the organization's strategic plan?
- 5. Is there at least one broad safety-and-health objective in the organization's strategic plan?
- 6. Are safe and healthy work practices included as criteria of the performance appraisal process?
- 7. Do leaders cooperate in the promotion of a safe and healthy workplace?

Organizational Role Models

- 8. Do leaders serve as positive role models of safe and healthy work behavior?
- 9. Do leaders consider safety and health issues as applicable when making decisions?
- 10. Do supervisors consider safety and health issues as applicable when making decisions?
- 11. Do supervisors point out unsafe behavior and insist that appropriate cautions be taken all of the time?

Customs, Traditions, Rites and Rituals

- 12. Is there peer pressure among employees to work in a safe and healthy manner?
- 13. Are safety and health stressed when new employees are oriented?
- 14. Are safe work practices recognized and rewarded?
- 15. Are safety and health stressed when new employees are oriented?

Step 1--Part B

QUESTIONS FOR GAINING LEADER COMMITMENT

1. Is this organization's mission performance as good as we would like it to be?
2. Is this organization spending more than it should on workers' compensation costs? Are workers' compensation costs in this organization increasing, decreasing, or remaining stable?
3. Is the quality of work as good as we would like it?
4. Is the number of hours lost due to accidents in this organization as low as we would like?
5. Is the sick leave utilization rate in this organization as low as we would like? Is the rate increasing, decreasing, or remaining stable?
6. How frequently is this organization involved with employee safety and health related complaints and litigation? How much is spent annually on this type of litigation? Is the amount spent of safety/health litigation increasing, decreasing, or remaining stable?
7. Is employee morale at this organization as high as we would like it to be?
8. Do employees perceive the work environment in this organization as a positive or negative factor in their daily performance?
9. Has the organization been inspected or cited by regulatory agencies and would fines been levied if the organization was private industry?

Step 2

Establish the Steering Committee

The Steering Committee should be composed of organizations leadership plus the safety officer. The TSM Steering Committee's responsibilities are as follows:

- Making safety and health concerns a part of the organization's strategic plan.
- Safety and health policies for the organization.
- Oversight of the organization's overall safety and health program
- Approval and disapproval of recommendations from Improvement Project Teams (IPTs).
- Approval of charters that are drafted by the TSM
- Making safety and health part of the organization's performance appraisal and reward-recognition system.
- Allocation of the resources needed to support the overall Program

Step 3

Molding the Steering Committee into a Team

Assessing Needs for additional Team-Building

Instructions

To the left of each item is a blank for recording your perception regarding that item. For each item, record your perception of how well it describes your team. Is the statement *Completely True* (**CT**), *Somewhat True* (**ST**), *Somewhat False* (**SF**), or *Completely False* (**CF**)? Use the following numbers to record your perception.

CT = 6

ST = 4

SF = 2

CF = 0

Direction and Understanding

- 1. The team has a clearly stated mission.
- 2. All team members understand the mission.
- 3. All team members understand the scope and boundaries of the team's charter.
- 4. The team has a set of broad goals that support its mission
- 5. All team members understand the team's goals.
- 6. The team has identified specific activities that must be completed in order to accomplish team goals.

- 7. All team members understand the specific activities that must be completed in order to accomplish team goals.
- 8. All team members understand projected timeframes, schedules, and deadlines relating to specific activities.

Characteristics of Team Members

- 9. All team members are open and honest with each other all the time.
- 10. All team members trust each other.
- 11. All team members put the team's mission and goals ahead of their own personal agenda all the time.
- 12. All team members are comfortable that they can depend on each other.
- 13. All team members are enthusiastic about accomplishing the team's mission and goals.

- 14. All team members are willing to take responsibility for the team's performance.
- 15. All team members are willing to cooperate in order to get the team's mission accomplished.
- 16. All team members will take the initiative in moving the team toward its final destination.
- 17. All team members are patient with each other.
- 18. All team members are resourceful in finding ways to accomplish the team's mission in spite of difficulties.
- 19. All team members are punctual when it comes to team meetings, other team activities, and meeting deadlines.
- 20. All team members are tolerant and sensitive to the individual differences of team members.
- 21. All team members are willing to persevere when team activities become difficult.
- 22. The team has a mutually supportive climate.
- 23. All team members are comfortable expressing opinions, pointing out problems, and offering constructive criticism.
- 24. All team members support team decisions once they are made.
- 25. All team members understand how the team fits into the overall organization/big picture.

Accountability.

- 26. All team members know how team progress and performance will be measured.
- 27. All team members understand how team success is defined.
- 28. All team members understand how ineffective team members will be dealt with.
- 29. All team members understand how team decisions are made.
- 30. All team members know their respective responsibilities.
- 31. All team members know the responsibilities of all other team members.
- 32. All team members understand their authority within the team and that of all other team members.
- 33. All team goals have been prioritized.
- 34. All specific activities relating to team goals have been assigned appropriately and given projected completion dates.
- 35. All team members know what to do when unforeseen inhibitors impede progress.

Step 4

Provide Safety and Health Awareness Training

Suggested Training Topics

Topic	Time
1. Accidents and their effects	45 minutes
2. Safety, health, and mission accomplishment	1 hour
3. Safety analysis/hazard prevention	45 minutes
4. Promoting safety and health	45 minutes
5. Ergonomics and safety	45 minutes
TOTAL	4 hours

Step 5

Develop the Vision and Guiding Principles

A Well-Written Safety and Health Vision Must be:

- Easily understood
- Briefly stated
- Challenging yet possible
- Stirring
- Sets the tone
- Not concerned with numbers

Guiding Principles for Safety and Health

1. At Camp Swampy, the *safe way* is the *right way*.
2. Camp Swampy is committed to safe and healthy processes and work practices.
3. At Camp Swampy, all employees at all levels are expected to do the following:
 - a. follow all applicable safety and health regulations
 - b. take all precautions necessary to prevent injuries
 - c. correct other employees at any level who violate safety and health regulations.
4. At Camp Swampy, leaders and supervisors are expected to enforce safety and health policies consistently and without exception
5. At Camp Swampy, employees at all levels are expected to point out and help correct hazardous conditions.
6. Camp Swampy will not knowingly harm the environment, the public, employees, or any other stakeholders.

Step 6

Develop the Mission and Objectives

Components of a well-written mission Statement

1. Who are we?
2. What do we do?
3. What are we responsible for?

The Camp Swampy
TSM Steering Committee--Safety and Health
MISSION STATEMENT

The TSM Steering Committee consists of The Camp Swampy commander or his designated representative and other senior decision makers. The purpose of the TSM Steering Committee is to ensure that the organization's safety and health vision is accomplished, the organization's safety and health guiding principles are adhered to, and the organization's safety and health objectives are achieved. Specific responsibilities include the following:

- Building safety and health concerns into the organization's strategic plan.
- Developing safety and health policies for the organization.
- Overseeing the organization's safety and health program.
- Approval of recommendations for improvements to the work environment. Allocation of resources for safety and health.
- Assignment of charters for improvement project teams (IPTs).
- Making safety and health part of the organization's performance appraisal and reward/recognition processes.

**Characteristics of
BROAD OBJECTIVES**

Broad objectives of an organization always:

- Flow directly out of the mission.
- Support accomplishment of the mission.
- Apply to the entire organization, rather than to individual departments of subunits.
- Are nonrestrictive in nature.
- Describe *what* is to be accomplished.
- Remain relatively static

Camp Swampy
TSM Steering Committee -Safety and Health
BROAD OBJECTIVES

- Establish a work environment that is free of ergonomics hazards.
- Establish a work environment that is free of fall/acceleration-related hazards
- Establish a work environment that is free of lifting hazards.
- Establish a work environment that is free of heat/temperature hazards.
- Establish a work environment that is free of pressure hazards.
- Establish a work environment that is free of electrical hazards.
- Establish a work environment that is free of fire hazards.
- Establish a work environment that is free of toxic substance hazards.
- Establish a work environment that is free of explosives related hazards.
- Establish a work environment that is free of radiation hazards.
- Establish a work environment that is free of noise hazards
- Establish a work environment that is free of vibration hazards.
- Establish a work environment that is free of automation-related hazards.
- Establish a work environment that is free of bloodborne hazards.

Step 7
Communicate and Inform

The following should be communicated to all employees

- Vision
- Guiding Principles
- Mission
- Broad objectives
- Why the plan was developed
- What the plan means to them

Methods of communication:

- Verbal Presentations.
- Videotaped Presentations.
- Audio-taped Presentation.
- Newsletters.
- Special Bulletins or memorandums.
- Posters.
- Bulletin Board Notices.
- Wallet Cards

Step 8

Identify Strengths and Weaknesses

Camp Swampy

Strengths and Weaknesses

WORKPLACE SAFETY & HEALTH

Strengths

- Commitment by senior leadership
- An active and strong TSM Steering committee (senior leaders)
- A well educated/experienced safety director
- A comprehensive safety and health plan

Weaknesses

- Numerous old machines without proper machine guards
- Old facilities in which the electrical wiring may be overloaded
- Insufficient storage and disposal capabilities for toxic substances
- Several new automated machines for which safety procedures have not yet been developed

Safety and Health
STRENGTHS AND WEAKNESSES SURVEY

Directions

The TSM Steering Committee is in the process of identifying our organization's strengths and weaknesses in the area of workplace safety and health. As an employee who is close to our work processes, you can provide invaluable information to the committee by completing this survey instrument. Each entry in the survey is one of our organization's broad objectives for safety and health. Please note any weaknesses or strengths in the space provided after each objective.

To have a workplace that is free of mechanical hazards.

Strengths

Weaknesses

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To have a workplace that is free of electrical hazards

Strengths

Weaknesses

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Identify Advocates and Resister

Characteristics of advocates

- Innovators
- Can-do attitude
- Unafraid of change
- Open to a better way
- Learning oriented
- Good performance record
- Prior favorable experience

Characteristics of Resistors

- Can't do attitude
- Afraid of change
- Negative attitude
- Mediocre performance
- Rebellious attitude

Methods for Identifying Advocates and Resistors

Using Known Characteristics to Identify advocates and Resistors

- Steering Committee brainstorming
- Supervisor input
- Examination of past performance appraisals

Step 10

Benchmark Initial Employee Perceptions

Methods for Assessing Employee Perceptions

- Survey (external)
- Survey (internal)
- Focus groups (internal)
- Focus groups (external)

EMPLOYEE PERCEPTION SURVEY

Perception Statement		Strongly Disagree	Disagree	Agree	Strongly Agree
1.	The workshop is free of unreasonable stress.				
2.	The workplace is free of mechanical hazards.				
3.	The workplace is free of falling and impact hazards.				
4.	The workplace is free of lifting hazards.				
5.	The workplace is free of heat/temperature hazards.				
6.	The workplace is free of electrical hazards.				
7.	The workplace is free of fire hazards.				
8.	The workplace is free of toxic substance hazards.				
9.	The workplace is free of explosive hazards.				
10.	The workplace is free of radiation hazards.				
11.	The workplace is free of noise/vibration hazards.				
12.	The workplace is free of automation hazards.				
13.	The workplace is free of bloodborne pathogen hazards.				
14.	The workplace is free ergonomic hazards.				
15.	The workplace is free of violence hazards.				

Step 11

Tailor the Implementations

Likely Advocates and Resistors

Organizational Strengths and Weaknesses

Current Employee Perceptions

Step 12
Identify Specific Rights

Final Criteria for Initial Project Selection

- Takes advantage of an organizational Strength
- Attacks one of the organization's most serious weaknesses
- Attacks one of the organization's most serious safety problems
- Has a good chance of succeeding

Charter

Lifting Hazards Project

Background

One of our most pressing weaknesses in the area of safety/health is the organization's high accident/injury rate. This weakness results in both high medical costs and an unacceptable level of sick leave usage. One of the safety/health problems that contributes directly to this weakness consists of *lifting hazards*.

Projects Definitions/Purpose

The purpose of this project is to identify specific lifting hazards in the workplace and to make recommendations for either eliminating or overcoming those hazards.

Project Goals

1. Identify lifting hazards in the workplace.
2. Prioritize the hazards from most critical to least critical.
3. Make recommendations to the Steering Committee (through the TSM facilitator) for eliminating/overcoming the hazards.

Timeframe

Complete four weeks from initiation date.

Step 13
Establish, Train, and Activate IPTs

Training Should include the following:

- TSM overview
- Fundamentals of teamwork
- Communication
- Hazard identification

Activation Meeting Discussion Topics

Discussion Topics

- Review of the Charter
- Reporting Requirements
- A-P-D-C-A Model
- Projected Schedule
- Team Leadership
- Team Authority

Step 14

ACTIVATE THE FEEDBACK LOOP

Apply the A-P-D-C-A Model: **Assess** **Plan** **Do** **Check** **Adjust**

Uses of Employee Feedback

- Identifying Issues
- Identifying solutions
- Setting goals
- Selecting Projects
- Measuring Progress

Step 15
ESTABLISH A TSM CULTURE

TSM Cultural Characteristics Check List

- Everyday behavior at all levels matches slogans.
- Employee feedback/imput is solicited continually and used to improve the work environment.
- Employees are both involved and empowered.
- IPTs are actively engaged on a continual basis.
- The TSM facilitator is an effective communication link between IPTs and the Steering Committee.
- Leaders are actively engaged as the TSM Steering Committee.
- Sufficient resources are made available as needed to ensure continuous improvement of the work environment.
- Training is provided to ensure that all employees at all levels have the knowledge and skills needed to be effective.
- TSM has been incorporated into the organization's reward, recognition, and promotion system.
- Peer pressure among employees promotes TSM.
- Organizational heroes are effective practitioners of TSM.
- TSM is viewed by employees as the natural, normal, and acceptable way of doing things.

Strategies for Identifying Cultural Roadblocks

- Interview individual employees.
- Survey employees.
- Conduct brainstorming sessions involving only IPT members.
- Conduct brainstorming sessions involving employees who are not members of the IPT.
- Examine written practices and habits.
- Review unwritten practices and habits.

TSM Cultural Roadblocks Survey

1. Are you aware of any operating rules or regulations that make it difficult to practice TSM?
2. Are you aware of any rules or regulations that make it difficult to properly practice TSM?
3. Are you aware of any habitual behaviors (behaviors we continue only out of habit) in our organization that make it difficult to practice TSM? If yes, describe them.
4. Are you aware of any unwritten rules (expectations) that make it difficult to properly practice TSM? If yes, describe them.
5. Does our organization structure (departments, divisions, etc.) support or inhibit the proper practice of TSM? If it inhibits, explain how.
6. Does our recognition system (employee/soldier-of-the month, etc.) support or inhibit the proper practice of TSM? If it inhibits, explain how.

Planning Guidelines for Removing Culture Roadblocks

- Who are the stakeholders? Who will be affected by the change?
- Who is likely to oppose the change?
- Who must be involved in order for the change to succeed?
- What specific tasks must be accomplished in order to remove the roadblock?
- What are the most likely barriers that might prevent the accomplishment of these tasks?
- What related processes and procedures might be affected by the removal of the roadblocks in question?
- When should the roadblocks be removed?
- How will we know that the roadblock has been removed?
- What are the expected benefits of removing the roadblock in question?