



**ASTM MANUAL FOR DEVELOPMENT AND IMPLEMENTATION  
OF STRATEGIC PLANS**

Revised August 1998

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IMPLEMENTATION OF STRATEGIC PLANS**



Developed by the Planning Subcommittee  
of the Committee on Technical Committee Operations

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# CONTENTS

	Page
Preface .....	3
Introduction .....	4
Section 1: Surveying Current Status and Needs .....	5
Section 2: Identifying Future Directions and Needs .....	6
Section 3: Defining Objectives and Assigning Priorities .....	7
Section 4: Developing Goals to Meet Objectives .....	8
Section 5: Achieving Goals.....	9
Section 6: Measuring Progress .....	11
Section 7: ASTM Resources .....	12
Appendix X1: Committee Self-Evaluation .....	13
Appendix X2: Sample Strategic Plan .....	18

## **PREFACE**

The American Society for Testing and Material's (ASTM) Committee on Technical Committee Operations (COTCO) Planning Subcommittee has prepared this document to help ASTM Technical Committees (including their subcommittees) with the development of individual strategic planning activities.

The purpose of ASTM is to assist in the development of standards appropriate for use throughout industry and business. To be proactive in the development of standards in a timely fashion, it is necessary for technical committees to project requirements for future standards, establish appropriate subcommittees, and attract individuals to participate.

As a society, ASTM considers it important for all technical committees to develop strategic plans. This document is intended to be a guide for ASTM Technical Committees to establish and implement realistic strategic plans.

## INTRODUCTION

Strategic planning is one of the most important activities carried out by ASTM Technical Committees. The standards developed by technical committees are the key products and reason for existence. Strategic planning is a process that maximizes the committee's productivity to develop relevant and timely standards. Without adequate planning, the time committed by members may not be utilized efficiently.

Many people consider the idea of strategic planning intimidating. They are not convinced the investment of time and energy will be worthwhile and are hesitant to initiate such a process. A good committee plan provides guidance and direction to committee activities and results in increased efficiency and productivity. Strategic planning directs action toward a desired and forecasted result. It reinforces the assets and attributes of the committee, making it progressively stronger. To aid in the development of strategic plans, ASTM's Committee on Technical Committee Operations (COTCO) has prepared this step-by-step manual to guide committees as they develop their individual strategic plans.

This manual describes a process for strategic planning. The usefulness of a plan depends upon the effort and dedication of those individuals who actually develop it, how well it is formulated and implemented, and how often it is reviewed and revised.

Strategic planning is not simply a one time process. A committee's plan must be a dynamic document. As new technologies emerge, the committees must keep step with such developments, and their strategic plans must prepare them to meet the evolving need for new standards.

## **SECTION 1: SURVEYING CURRENT STATUS AND NEEDS**

### **STATUS**

One of the most important components of a committee's planning is an initial evaluation of its past and current activities. From the evaluation, the committee should identify its strengths and weaknesses and determine its needs. Using this information, the committee may develop a plan for future action.

The evaluation of the committee's past and current activities should include a thorough review of all aspects of its structure and operation including scope, organization, personnel, fiscal resources, relationships with other ASTM activities, existing and proposed standards, plans, and accomplishments. The scope should clearly and concisely define the committee's purpose. The organizational structure should provide the appropriate framework for the committee's efficient operation. Committee membership should actively represent the appropriate areas of science, engineering and technology, and consist of a cross-section of government, academia, and the private sector. Present and future leaders should display a personal commitment to the activities of the committee and provide vigorous leadership. Fiscal support should be adequate for the committee's work. A committee's internal and external relationships should support and enhance its productivity. Existing and proposed standards should reflect the needs of the technical community. Plans and accomplishments should be consistent with the committee's scope and objectives.

### **STRENGTHS**

The strengths of a committee are those areas of its structure and operation which receive high evaluations in the review process. Strengths are used as the basis for future planning and development by the committee.

### **WEAKNESSES**

The weaknesses of a committee are those areas of its structure and operation which receive low evaluations in the review process. Weaknesses are targets for corrective action in future planning and development by the committee.

### **NEEDS**

The needs of a committee must be met to overcome its deficiencies, initiate corrective actions, build on its strengths, and fulfill its purpose.

## **SECTION 2: IDENTIFYING FUTURE DIRECTIONS AND NEEDS**

### **IDENTIFICATION**

The committee's evaluation of its status and needs will identify future directions and needs which must be considered and addressed in its strategic plans. The committee must also identify new and emerging technologies which impact its activities and the changing needs of the community it serves.

### **RANGE**

The committee should evaluate the future directions and needs to determine if they are within its scope, if they are within the scope of another committee, if the current scope must be expanded, or if joint activity with another committee is needed.

### **NEW WORK**

The committee should determine whether the future directions and needs will require a new activity or an extension of an existing activity.

### **EVALUATION**

The committee should examine its strengths and weaknesses to determine whether its current structure and operation are capable of sustaining the new activity.

### **RESOURCES**

The committee should examine its current resources (personnel, facilities, finances) to determine whether they are sufficient to support the new activity.

### **PLANNING**

Plans for future directions and needs should include appropriate actions to address the findings of the tasks conducted in this section. The necessary actions include defining objectives, and developing and achieving goals, as described in Sections 3, 4, and 5.

## **SECTION 3: DEFINING OBJECTIVES AND ASSIGNING PRIORITIES**

### **IDENTIFYING THE OBJECTIVE**

Identify the committee's strengths and recognize those areas where improvements are necessary. Sort those areas in need of improvement and the committee's future direction into major categories by their common overall purpose. These categories are called OBJECTIVES.

### **OBJECTIVE STATEMENT**

Develop a statement that includes a clearly defined purpose measured in an achievable time schedule. If applicable, quantitative measurements are useful when developing objective statements.

### **EXAMPLE**

The objective statement may be worded as follows:

"To develop standards for the design, manufacture, performance, and operation of Shipboard Incinerators for adoption by the International Maritime Organization (IMO)."

### **PRIORITIES**

When the committee identifies multiple objectives, it is necessary to set priorities on the basis of that committee's needs and available resources, and by separating the objectives into "musts" and "shoulds." Some committees may be able to accomplish more than one objective at the same time, while others may need to achieve one objective before starting the next.

## SECTION 4: DEVELOPING GOALS TO MEET OBJECTIVES

### GOALS

Once a committee prepares its objective statements, the next task is to develop GOALS to achieve each objective. The areas in need of improvement, as well as future directions, become the basis for identifying discrete goals to accomplish the objective.

### GOAL

Develop a statement for each goal that includes a clearly defined purpose measured in a specific time period. Multiple goals may be required to meet a particular objective.

### EXAMPLE

Section 3 gave an example of a committee's objective statement as:

" To develop standards for the design, manufacture, performance, and operation of Shipboard Incinerators for adoption by the International Maritime Organization (IMO)."

The committee determined three goals aimed at achieving its objective: (1) Obtain support/participation of IMO personnel, (2) Gain participation of key industry stakeholders, and (3) Prioritize standards needed.

Goal statements and target dates could be worded as follows:

GOAL	STATEMENT	TARGET DATE
1	Obtain support/participation of IMO personnel	March 1998 (2 months)
2	Gain participation of key industry stakeholders	May 1998 (2 months)
3	Prioritize standards needed	June 1998 (1 month)

## SECTION 5: ACHIEVING GOALS

### IMPLEMENTATION

After a committee has developed its objective statements and established goals to achieve its objectives, it proceeds to identify the implementation tasks for each goal. Establishing a plan to achieve each goal is essential to enable the committee to determine the required effort, the timing of that effort, the available resources, and the assignment of responsibilities.

### INTEGRATION

Integration of the planning function is vital to achieving goals and objectives. Coordinate each plan to efficiently utilize available resources. The time period allotted to accomplish each goal must be organized into concurrent tasks. The requirements for additional resources must also be considered.

### EXAMPLE

Section 3 gives an example of Goal No. 1 as:

" To develop standards for the design, manufacture, performance, and operation of Shipboard Incinerators for adoption by the International Maritime Organization (IMO)."

In order to accomplish this goal, the committee may lay out tasks and target dates:

TASK	TARGET DATE
A. Assign responsibility	January 1998
B. Identify IMO contacts	February 1998
C. Send letter requesting participation	March 1998
D. Send letter requesting meeting	May 1998
E. Develop agenda for meeting	June 1998

Integration in this example involves the coordination of the committee's resources and the utilization of ASTM Staff. Planning, scheduling, and promotion require integration for successful achievement of the committee's objective.

The integration process may reveal that the committee does not have the resources to accomplish an objective by the target date originally selected. This would necessitate changing the target dates for completion of one or more of the individual tasks within the goals for that objective. In the process of integration there may be other benefits not immediately identifiable that can only be determined when the complete coordination effort is reviewed.

## **SECTION 6: MEASURING PROGRESS**

### **EVALUATION**

Measuring progress in the execution of strategic plans consists of regular reviews and evaluations. The reviews should address objectives, goals, tasks, and target dates. Evaluations should determine whether the execution of the plan is producing the necessary accomplishments in the expected time frame. These regular reviews and evaluations are necessary to determine if the objectives are consistent with the scope, directions, and needs of the committee, and if progress toward meeting the objectives is on schedule. If needed, appropriate, corrective actions should be identified and implemented.

### **REVISIONS**

After the measurement process is completed, the committee may find it necessary to revise the strategic plan by modifying objectives and goals, changing implementation procedures, or altering schedules. Proposed revisions to a plan should follow the same process of coordination and integration that was used in its original preparation.

## **SECTION 7: ASTM RESOURCES**

ASTM staff assistance is invaluable to committees developing and implementing their strategic plans. It is important to identify the available ASTM resources to define realistic objectives. In addition, the committee must coordinate their implementation tasks with ASTM Staff to efficiently utilize those resources.

The ASTM Technical Committee Officer Handbook contains a section on "Headquarters Assistance". This section lists the resources available to members, and the staff positions to contact for assistance. Please refer to this section for more information.

## **Appendix X1: Committee Self-Evaluation**

### **X1.1 Surveying Current Status and Needs**

#### **Organizational Review:**

X1.1.1 How is the committee structured? Does this structure make maximum use of the time available at meetings? Are present traditional procedures adequate to meet the needs of merging technologies? Are all members being equally involved, or are 10 percent of the members doing 90 percent of the work?

X1.1.1.1 Efficacy (Ability to produce, revise, and maintain standards)

X1.1.1.1.1 What are your criteria to determine that the output of your committee is satisfactory?

X1.1.1.1.2 Interaction with other ASTM Committees, Government Regulatory and Procurement Agencies, and other related organizations -- what ASTM committees, government regulatory agencies, and other related organizations (national and international) have similar, parallel, or related standards and standards activities? Have the committee officers attempted to secure participation of representatives of these groups in the activities of the committee? Have liaisons been established? If so, who are the committee's liaison representatives? Are these representatives doing an effective job? Should liaisons be established?

X1.1.1.1.3 Would a reorganization, restructuring, or merger improve your ability to produce standards? If so, explain.

X1.1.1.2 Efficiency -- How long does it take the committee to produce a draft standard? Are standards being developed within a reasonable and satisfactory time frame?

X1.1.1.3 Effectiveness -- How are the committee's standards being used in the marketplace? How are these standards being received by the organizations the committee is trying to impact? Does the committee meet the needs of the business and technical community?

X1.1.1.3.1 Encouragement of Use of Standards -- Do your members promote the use of the committee's standards? For example, do they keep their purchasing, marketing, and advertising departments as well as their customers, vendors, and suppliers informed of pertinent standards and their benefits?

X1.1.2 Specific Actions to Accomplish Goals

X1.1.2.1 Have the draft standards under development by each subcommittee been identified?

X1.1.2.2 What timetables have been established for completing the draft standards under development by each subcommittee?

X1.1.2.3 What is your editorial review policy? Does it ensure that timely reviews are undertaken before the final drafts of documents are submitted to subcommittee ballot?

X1.1.2.4 What plans does the committee have for sponsoring symposia to highlight emerging technologies? How will the output of these symposia be utilized to advance the committee's standards efforts?

**Evaluating Leadership:**

X1.1.3 How does your committee evaluate the performance of its committee and subcommittee officers?

X1.1.3.1 Which officers are responsible for committee functions such as long range planning, publicity, awards, etc.?

X1.1.4 Identifying Future Leadership

X1.1.4.1 How are potential future committee leaders identified?

X1.1.4.2 How does your committee involve them in the important work?

X1.1.4.3 How does your committee motivate them to assume leadership responsibilities?

X1.1.5 Officer Training and Development

X1.1.5.1 How does your committee promote continuity and ensure the smooth transition of leadership?

X1.1.5.2 Have your officers participated in an ASTM Officers' Conference? Do they attend the training sessions offered at Committee Week meetings?

**Membership:**

X1.1.6 Are publicity releases being used to attract outside participation and membership? How are these being evaluated for effectiveness?

X1.1.6.1 Has the committee implemented a membership recruitment program?

X1.1.7 Training sessions for members are an aid to understanding ASTM and committee activities.

X1.1.7.1 Describe your committee training activities.

X1.1.7.2 How are training topics selected and presented?

X1.1.8 Participation

X1.1.8.1 How are members being challenged to stimulate active involvement in the committee's standards development process?

X1.1.8.2 Describe how new members and visitors are being involved in the committee's activities.

X1.1.8.3 What percentage of your members participate in round robin studies? What stimulus is the committee using to induce greater participation? What other non-ASTM resources, if any are being used, e.g., consultants, statisticians, third-party independent laboratories, supplier of reference materials, etc.?

X1.1.8.4 Support by Members' Employers -- The time allowed by

employers for committee members to attend committee meetings, the funding by employers of members' travel and round robin studies, and the administrative assistance provided by employers are essential to the present and future health of the committee. Do the performance, productivity, and output of the committee justify employer support? What is the extent and range of time, travel, administrative support furnished by the members' employers? How many members support their attendance with personal funds and/or vacation time?

X1.1.9 Activity Recognition and Awards - Are the contributions of committee members being adequately recognized? What mechanisms are in place for presenting awards to deserving members (such as committee awards of appreciation)?

## **X1.2 Identifying Future Directions and Needs**

This section highlights the need to anticipate changes and prepare for new developments. A planning horizon of five to seven years is recommended.

X1.2.1 New Technologies -- Identify emerging technologies and how these will impact the committee's activities, such as standards development, planned symposia, training programs, etc.

X1.2.2 Government Pressures -- Identify relevant regulatory and trade agencies, and determine if they are represented on the committee. If not, how to gain their participation.

X1.2.3 International Pressures -- Acceptance of U.S. product qualification in export trade. Needs of, and standards actions in, developing nations.

X1.2.4 Membership Growth -- Impact of business health on support of members' ASTM activities. Competition of non-ASTM activities for members' time. Consider membership segments not now represented (students, trade groups, etc.).

## **X1.3 Defining Objectives**

This section addresses the question "Where do we wish to go?" Establish specific objectives to meet the anticipated changes and new developments identified previously. These objectives should be stated clearly and be both measurable and achievable within the planning horizon.

X1.3.1 Standards -- What and when needed? Who benefits from a given standard? Who pays for the consequences of a given standard?

X1.3.2 Workshops and Symposia -- What and when needed?

X1.3.3 Recruiting Retaining Members -- Talents required, industries and organizations to be represented. Take a proactive approach.

X1.3.4 Membership Training -- Consider training for new members. Identify and encourage potential leaders. Give opportunity to show

potential.

#### **X1.4 Define Goals**

This section addresses the question "How do we get there?"

X1.4.1 Committee Scope -- Is the committee scope adequate for future responsibilities? If not, revise.

X1.4.2 Committee Structure -- Is the committee structure adequate for future responsibilities? If not, reorganize.

X1.4.3 Membership -- Determine methods of recruitment to achieve goals. Define methods of membership training to achieve goals.

X1.4.4 Performance of Functions -- Develop techniques and approaches to improve performance.

X1.4.5 Interaction with Other Activity -- Develop techniques and approaches to maintain and/or improve interactions and liaisons with other ASTM committees, government agencies, and other related organizations (national and international).

X1.4.6 Coordination of Committee Activities -- Develop plans to integrate the workshop, symposia, and standards development activity of the committee.

#### **X1.5 Assignments**

This section addresses the question "Who will do what and when?"

X1.5.1 Measures Listed Above -- Define responsibilities and milestone dates.

X1.5.2 Review Existing Standards for Relevance-- Define responsibilities and milestone dates.

X1.5.3 New Standards -- Define responsibilities and milestone dates.

X1.5.4 Future Workshops and Symposia -- Define responsibilities and milestone dates.

X1.5.5 Periodic Review and Update of Long Range Plan -- Define responsibilities and milestones.

**Appendix X2**

**SAMPLE STRATEGIC PLAN**

ASTM COMMITTEE E05  
ON  
FIRE STANDARDS

1998 STRATEGIC PLAN

March 1998

## ASTM E05 Strategic Plan

Goals for ASTM E05:

**1. Maintain and update existing fire standards, with emphasis on those most widely used.**

A significant number of the fire test standards issued by ASTM E05 are widely used, for example as requirements in building codes, regulations or specifications. It is the foremost responsibility of the committee to ensure that these standards are adequately maintained, and periodically updated, so that the newest available technology is used, while ensuring quality, minimizing misuse and maximizing user-friendliness for those organizations employing them.

**2. Develop new fire standards for regulatory, quality control, product development, and screening purposes.**

Where customer needs have been identified, it is appropriate for ASTM E05 to develop new test methods or specifications useful for the purposes mentioned, even if the results are not expressed in fire safety engineering units. These tests must have been validated to ensure that they have a sound technical basis and that they adequately represent the fire-test responses of the materials, products or assemblies tested.

**3. Develop new fire standards which can provide data for fire safety engineering calculations.**

Many existing ASTM E05 fire test standards cannot be used for input into fire safety engineering calculations for two types of reason: (a) the output of some test methods is non quantitative information (e.g. pass-fail tests) or is not expressed in fire safety engineering units and (b) the fire exposure conditions (input) for other fire test methods are not representative of the range of conditions under which the material, product, or assembly is likely to be used in actual practice. Therefore, it is the responsibility of the committee to develop new fire standards which provide the data required for fire safety engineering calculations, including fire modeling, fire hazard assessment and fire risk assessment.

**4. Develop fire safety engineering methodology.**

ASTM E05 must provide leadership in developing and standardizing state-of-the-art methodology for making fire safety engineering calculations. Fire safety engineering will range from research into active fire protection techniques through manufacturing of materials, products or assemblies designed to be fire safe, to the construction, and evaluation of buildings or vehicles which ensure adequate levels of fire safety to its users. In future, fire safety will be assessed through engineering calculations by the use of performance-based fire codes. Therefore, the committee must provide methodology to lead the way for the development and use of such codes.

**5. Coordinate with users and potential users of fire standards to ensure most efficient resolution of their needs.**

ASTM E05 must remain alert to evolving global technologies and worldwide customer needs. Its standards will be more suited to the needs of users if wide participation and membership is encouraged, including that of building code officials, the fire services and the fire research community. This will only be achieved if the interests of new members are raised by developments which have an impact on their own organization or business. Thus, the committee must communicate with all relevant organizations (including other ASTM technical committees) to identify issues or standards developments that will have major or lasting impact on fire testing, fire performance, or fire safety, and to make ASTM standards the standards of choice throughout the world.

## **INTRODUCTION**

ASTM's mission is to be the foremost U.S. developer of voluntary consensus standards and related technical information of a universally recognized quality and applicability. The following seven goals have been adopted by the ASTM Board of Directors to implement the ASTM mission worldwide.

1. To anticipate and respond to the changing needs of technical committees through effective support mechanisms.
2. To improve the timeliness and currency of ASTM products while maintaining high standards of quality and peer review.
3. To increase ASTM's overall visibility, public understanding of what it does, appreciation for the value of its products and services, and knowledge of how to use its standards most effectively throughout the world.
4. To strengthen the international acceptance and use of both ASTM and the products and services it provides.
5. To identify and develop new opportunities to use the ASTM process, resources, skills, and facilities.
6. To increase the number and diversity of members worldwide and optimize their participation in ASTM activities.
7. To ensure the continued financial strength of ASTM through the effective formulation of policies that generate continuing and secure sources of income.

In support of the above mission and goals, the goal of ASTM E05 Committee on Fire Standards is to develop and maintain as efficiently as possible, fire test standards, guides and recommended practices which will incorporate the latest technology and which will be useful to those manufacturers, testing organizations and those bodies directly responsible for fire safety.

It is important that E05 maintain those standards that are useful to their users, but also continue to develop standards that meet the needs of the fire engineering community. Thus, the following five goals have been established to provide direction for the committee to remain a leader in fire standards development worldwide.

## PLAN

**A. Committee E05 should pursue the stated goals in the following manner.**

**A1. Maintain and update existing fire standards, with emphasis on those most widely used.**

**Recommendation 1.1: Subcommittee E05.90 should require Subcommittees to maintain permanent Task Groups which are responsible for each existing fire standard. Such task groups should include major stakeholders.** The task groups should report, at intervals no greater than every 18 months, the type of action required on the standard. Such actions may be: amendment (either technical or editorial), withdrawal or nothing. It is important, however, that written reports be made, following actual analysis of the standard. Moreover, the task group members reviewing a given standard should rotate and should include individuals not intimately familiar with the standard, to maximize the probability that any errors that have accidentally been incorporated can be discovered as soon as possible. This should ensure that the technical validity of the standard remains adequate.

**Recommendation 1.2: The Task Groups should be encouraged by the Subcommittee chairs to contact, on an informal basis, regulatory and other agencies using any existing fire standard.** The objective of such contacts is to elicit their input as to ways of improving the standard. Although this should address mostly non technical aspects which would clarify the intent of the wording, technical comments should also receive full attention and be treated as items of new business. There should be a periodic report to the Subcommittee of the contacts made.

**Recommendation 1.3: Wherever appropriate, Subcommittees should be encouraged to set up Working Groups of Test Method Operators for any fire test method with the purpose of developing Operator Manuals (example: Steiner Tunnel Operators Task Group).** Such Working Groups should address means of developing manuals for Specific

Operating Procedures (SOP) and continually improving the SOP manuals. The SOP manuals may be intended as part of the formal ASTM consensus document, but are more likely to contain detailed instructions useful for technicians conducting the test method. The source for such an SOP can be documents from other organizations (example: Cone Calorimeter Users' Guide). The SOP should become publicly available, even if it is not intended for ballot, but it should contain the caveat that it is not an ASTM document. These SOP manuals could be published in the form of a formal ASTM consensus document, an ASTM Manual, within the subcommittee minutes, as a Research Report (for example following a round robin) or in a journal.<sup>1</sup>

**Recommendation 1.4: If the need to replace existing fire standards by new ones is discovered during the update, Working Groups involving various interests should be encouraged to be formed to investigate the most satisfactory means of achieving the objective while minimizing the damage that may be caused to certain organizations.** Thus, options such as developing new Test Methods with an existing designation or creating hybrid fire standards that include traditional and updated options, should be investigated.

**Recommendation 1.5: Subcommittee E05.31 should meet with ASTM staff to discuss the compilation of ASTM Fire Standards and its status.**

**Recommendation 1.6: Each Subcommittee should identify one technical contact for each one of its standards.** If necessary, that person can delegate inquiries.

**A2. Develop new fire standards for regulatory, quality control, product development, and screening purposes.**

**Recommendation 2.1: Subcommittee E05.90 should encourage all Subcommittees to consider the needs of manufacturers, users, consumers, regulators, and specifiers, for the development of new fire test methods, for product development, quality control, screening purposes or specifications.** Working Groups should be formed within each Subcommittee, for the purpose of liaison with relevant industry groups, fire-related associations and consumer organizations, who may have developed their own informal fire test methods. These contacts should be encouraged to result, if appropriate, in formal consensus standards, that would serve the needs of the originating organization.

**Recommendation 2.2: Subcommittees should be encouraged to consider developing consensus fire standards that involve simple, and valid, technology and end points, if such standards serve a useful purpose, as requested by groups of potential users.** These standards should address the needs of the market place as well as those of various potential

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<sup>1</sup> To ASTM E05.90: This recommendation may run afoul of ASTM rules and should be discussed with ASTM upper level management.

users. They may include pass/fail tests or screening tests.

**Recommendation 2.3: Subcommittees should be encouraged to consider developing simplified consensus fire standards.** Such standards may be versions of existing test methods, but which can be conducted at lower cost and by personnel with less specialized training. Such simplified fire standards may not yield results adequate for fire safety engineering calculations or fire modeling, but may be adequate for other specific purposes.

**Recommendation 2.4: The Scope and Appendix of any simplified fire standard should contain information on the ASTM consensus standard that can be used to obtain more extensive fire-test-response characteristics for the materials, products, or assemblies tested, if such a standard is available.**

**A3. Develop new fire standards which can provide data for fire safety engineering calculations.**

**Recommendation 3.1: It is incumbent on ASTM E05 to have available fire-test-response standards to meet the needs of fire safety engineering, which may be defined as the science of evaluating fire hazard and risk, the design and evaluation of the means to change hazard or risk, and the analysis of failure involving fire.** Fire safety engineering involves the use of calculations and models based on scientific methods and practical experience. Specific engineering activities include a broad range from fire research to analysis of fire incidents, to the research, development, engineering, and manufacturing of materials and products to be fire safe, to the design, construction, evaluation of such things as buildings, vehicles, and facilities, to the process of setting and ensuring publicly required levels of fire safety. The engineering data generated by fire-test-response standards are essential in the development and use of performance-based codes.

**Recommendation 3.2: Subcommittee E05.90 should encourage all Subcommittees to review those existing fire-test-response standards which produce engineering data to ensure that the results are suitable for fire modeling or fire safety engineering calculations, in each relevant fire scenario. If not, the limitations should be stated and other appropriate standards should be developed.** Examples of problems are: (a) some existing fire-test-response standards may generate data which is inappropriate for fire safety engineering calculations, perhaps due to the output units and (b) some existing fire-test response standards may generate data which is appropriate for fire safety engineering calculations, but may only be suitable for certain fire scenarios, while being inappropriate for others. Subcommittees E05.33, on Fire Safety Engineering, and E05.32, on Research, should be encouraged to provide leadership in investigating existing fire-test-response standards.

**Recommendation 3.3: Besides the usual requirements of any standard test method, in terms of technical adequacy and suitable precision, a fire-test-response standard suitable for fire safety engineering calculations should meet additional requirements.** These

include:

- \* be predictive of the fire performance of the material, product, or assembly, in the orientation in which it might be installed in practice.
- \* specify the exposure conditions, particularly external radiation or range of radiation levels (in bench-scale tests) or the energy input (in large-scale tests), to correspond to those in which the material, product, or assembly, might most likely be exposed to in practice.
- \* verify the permitted limits of variation in exposure conditions over the surface area of the specimen, particularly for bench-scale tests.
- \* specify appropriate calibration procedures to ensure that exposure conditions are within permitted levels.
- \* provide numerical output in such a way that there can be electronic storage and access of results.
- \* define, in measurable units, any external force, stress or pressure applied to the sample.
- \* account for special testing conditions (for example edge effects), or justify the corresponding lack, to enable the data to be applied to actual installation conditions.

**Recommendation 3.4: Task group chairs should be required to review the test methods intended to provide data for fire safety engineering calculations, to ensure that all the conditions from Recommendation 3.3 are met.** In that case, the Appendix or Scope of the standard should mention fire safety engineering as a potential use of the standard.

#### **A4. Develop fire safety engineering methodology.**

**Recommendation 4.1: Committee E05 and Subcommittee E05.33 should provide leadership in developing Standards for fire safety engineering methodology.** This may include, but not be limited to: active or passive fire protection techniques, manufacturing of materials, products or assemblies designed to be fire safe, or construction, and evaluation of buildings or vehicles which ensure adequate levels of fire safety to its users. Thus, committee E05 should increase its efforts in newly developing areas such as methodologies and guidance for fire modeling, fire hazard assessment and fire risk assessment.

**Recommendation 4.2: Subcommittee E05.90 and Subcommittee E05.33 should**

encourage Subcommittees in Division I to consider the development of fire hazard assessment standards or guides relevant to products or applications within their sphere of influence.

**Recommendation 4.3:** Subcommittee E05.90 and Subcommittee E05.33 should encourage Subcommittees in Division II to consider the development of fire hazard assessment standards or guides relevant to fire-test-response characteristics within their sphere of influence.

**Recommendation 4.4:** Subcommittee E05.33 should provide leadership in developing and standardizing state-of-the-art methodology for making fire safety engineering calculations for fire risk assessment.

**A5. Coordinate with users and potential users of fire standards to ensure most efficient resolution of their needs**

**Recommendation 5.1:** ASTM E05 Standards should become well suited to the needs of users. For that purpose, Subcommittee E05.90 should encourage more representation from building code officials, fire regulators, fire services, health care providers, insurance organizations and industry sectors, is desirable. These representatives should be encouraged to become participants in ASTM E05 activities. These representatives should be informed that ASTM E05 actions may have an impact on their organizations.

**Recommendation 5.2:** Whenever an issue arises that may be of particular interest to a specific organization, that organization should be notified by ASTM staff and kept informed of developments.

**Recommendation 5.3:** Subcommittee E05.90 should form a standing Working Group to contact model code agencies and fire service organizations to solicit and establish specific goals and time frames for new standards or actions on existing standards.

**Recommendation 5.4:** Committee E05 should take a leadership role in: (a) promoting the adoption of ASTM E05 standards for international standardization within ISO, (b) introducing into Committee E05 those international fire standards from ISO that are most appropriate for US needs, and (c) striving for international harmonization of fire standards. Subcommittee E05.34 should also form a standing Working Group to establish specific goals and time frames for new standards or amendments of existing standards, in concert with international developments.

**Recommendation 5.5:** See also the actions on Recommendations 1.2 and 2.1.

**Recommendation 5.6:** Committee E05 should develop technology transfer standards, guides, and courses, to help users in the selection of test methods and interpretation of

**test results.** This should involve state-of-the-art documents as background for standards development activities by subcommittees. These documents could describe ignitability, heat release, smoke obscuration, toxic product formation, or other parameters needed for fire hazard assessment or fire modeling.

**Recommendation 5.7: Committee E05 should provide training in the application of ASTM fire hazard assessment standards.**

**Recommendation 5.8: When one or more fire-test-response standards are adopted for the same fire-test response characteristic, such as heat release, smoke obscuration or combustion product generation, the governing subcommittee should prepare guide documents for users.** These may simply be included as Appendixes in the standards themselves.

**Recommendation 5.9: Coordination with other US fire standards writing organizations to define each organization's role and minimize duplication of efforts.** The survey of Committee E05 members and discussions between members and ASTM management on this issue are encouraged.

**B. Committee E05 should also address organization, leadership, membership, outreach, and funding.**

**B1. Organization: The primary role of Committee E05 is to develop and amend fire standards.**

**Recommendation B1.1: Subcommittee E05.90 and Subcommittee E05.91 should work in close cooperation with ASTM staff to encourage that the process of fire standards development be conducted in the most efficient manner possible, consistent with the guidelines of the ASTM rules found in the Form and Style of ASTM Standards (Blue Book), Main Committee Officer Handbook (Red Book) and Regulations Governing Technical Committee Operations (Green Book) and the Committee E05 Bylaws, and while encouraging proper participation of interested parties.** Thus, organization of meetings, ballots and actions on ballots should always be conducted with the primary objective and focus of aiding in the standards development process.

**B2. Leadership: Dedicated committee and subcommittee officers are essential for the efficient development of high quality fire standards. To develop and maintain a cadre of dedicated individuals requires identification of good potential officers, stimulation of interest, training, and due recognition and reward. It is important that the organizations employing volunteer**

**members of E05 fully support the activities of their members.**

**Recommendation B2.1:** Subcommittee E05.37 should actively maintain, on an annual basis, a list of potential committee and subcommittee officers for use by the nominating committee in identifying new committee assignments.

**Recommendation B2.2:** In conjunction with Subcommittee E05.37 and Subcommittee E05.90, the outgoing Subcommittee Chair should identify the most likely candidates to succeed.

**Recommendation B2.3:** Before appointment, a letter should be written by Subcommittee E05.90 to potential nominees for committee office or subcommittee chair, addressing the responsibilities of the new office.

**Recommendation B2.4:** At the time of appointment, a letter should be written by Subcommittee E05.90, after consultation with the new officer, to the new officer's supervisor or management at his/her parent organization stressing the importance of the assignment and expressing thanks for the organizational support.

**Recommendation B2.5:** All Committee and Subcommittee officers should be made aware of their duties and responsibilities by Subcommittee E05.90 at the time of their appointment. They should be encouraged to attend an ASTM Officer's Training Session. An alternative is attendance at a training session conducted by ASTM Staff, in conjunction with a full meeting of Committee E05.

**Recommendation B2.6:** Subcommittee chairs should be responsible for appropriate training of task group chairs and monitoring of their activities.

**B3. Membership:** ASTM E05 will become more suited to the needs of users if there is wider representation by building code officials, fire marshals, fire chiefs, fire technologists and health scientists.

**Recommendation B3.1:** Subcommittee chairs should be encouraged to contact organizations within the fire community to solicit participation by their members in Committee E05 activities. Such organizations include, but are not limited to building codes, fire services organizations, trade associations, industry groups, manufacturers, fire research organizations (academic, contract and industrial ones), and consumer groups.

**B4. Outreach:** Committee E05 should recognize outstanding activity by its members.

**Recommendation B4.1:** Parent organizations of members should be notified of

exceptional service to E05 by announcement of awards or letters of appreciation.

**B5. Funding: Committee E05 needs to develop a strategic plan for funding of its activities.**

**Recommendation B5.1: Committee E05 should encourage its members to pay the activity fee at every meeting.** The activity fee is used for awards, miscellaneous meeting expenses and special projects.

**Recommendation B5.2: As necessary, a special fund should be developed for training, education and symposia.**

**Recommendation B5.3: A special fund should also be in existence for international activities.**

**Recommendation B5.4: Subcommittee E05.90 should solicit sponsorship by major corporations to donate monies to a fund.** This fund will partially support the travel expenses to committee meetings of those E05 members who have no independent source of support and whose contributions to the advancement of a particular standard is considered of great value by the Subcommittee chair.

**Committee E05 - Strategic Plan Premises**

1. The need for fire-test-response standards will continue.
2. The need for methods of combining fire-test-response characteristics of material, products, or assemblies in defining safe use conditions of products will continue.
3. Standardization of fire-test-response methods by the independent consensus process will provide technically sound test methods.
4. ASTM Committee E05 can continue to provide the most vigorous process for developing a consensus of producers, users, and the public.
5. Committee E05 will maintain an active participation in international fire standard development (ISO).
6. ASTM staff support will be available as necessary.

COMMITTEE E05  
SCOPE

This Committee shall be responsible for the implementation of the ASTM Policy on Fire Standards; the development, revision, and approval of fire standards intended for analysis and assessment of fire performance of materials, products, and assemblies within their relevant environment; the development, revision, and approval of fire test standards intended to measure and describe the response of materials, products, and assemblies to sources of heat or flame under controlled conditions; and the administration and evaluation of fire research programs. The Committee is authorized to:

1. Develop all fire risk assessment standards including those suitable for use by regulatory officials, which shall contain, when appropriate, a specification, a test method, and a statistical sampling plan;
2. Monitor the public need for fire standards, and propose new standards as appropriate;
3. Review all ASTM fire oriented standards to assure that the ASTM Fire Policy is complied with;
4. Review all fire-related terminology used in ASTM standards toward the end of eliminating descriptive terms which can be used in an inappropriate and misleading manner; and providing such caveats and warnings as are required to clearly define the applicability of fire-related standards;
5. Provide guidance to the user of fire standards on the words and methods used to communicate the fire aspects of materials, products, and assemblies;
6. Stimulate and, where appropriate, support research in fire-related phenomena;
7. Through analysis of results of full-scale fire research, provide fire standards which relate to the fire performance of materials, products, and assemblies as part of a relevant environment.
8. Identify the level or degree of risk associated with fire, or during the fire extinguishment process;
9. Develop fire test standards and recommended practices for the determination of the behavior of man's surroundings under conditions of fire or conditions conducive of fire; including but not limited to means of transportation, clothing, buildings, and structures, including systems, sub-assemblies, contents, products, components, and materials.