

Australian Standard™

Fire safety audits



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Fire safety audits

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PREFACE

This Standard was prepared by Standards Australia Committee FP-021, Fire Safety Audits, to supersede AS 4655(Int)—2002.

The objective of this Standard is to set out a structured process of auditing fire safety against audit criteria to enable stakeholders to adequately gauge, to differing levels of confidence, the efficacy and suitability of fire safety measures in facilities and to ensure that adequate fire safety records are generated and retained. Stakeholders include facility owners, occupiers, managers, the authority having jurisdiction and other interested parties.

This edition of the Standard outlines the process and framework for audits aligned with ISO 19011, *Guidelines for quality and/or environmental management systems auditing*, adapted for fire safety auditing.

The Standard enhances the previous edition by re-defining the categories of audit into three levels that offer varying degrees of confidence that the audit criteria have or have not been met. Audit team member roles have been clarified and additional guidance is given for audit team member competence and audit criteria.

This edition includes normative requirements and its application has been broadened from buildings to all facilities where fire safety needs to be managed on an ongoing basis.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

This Standard incorporates a Commentary on some clauses. The Commentary directly follows the relevant clause, is designated by ‘C’ preceding the clause number and is printed in italics in a panel. The Commentary is for information only and does not need to be followed for compliance with the Standard.

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FOREWORD

Fire safety audits are undertaken for a variety of reasons, such as to indicate compliance with statutory requirements, as part of due diligence, pre-purchase or sale appraisal, risk management, insurance assessment, gap analysis against current legislation or standards, or as part of a comprehensive audit program. The audit may be initiated by the owner or manager of the facility, or by a statutory authority.

Audit criteria are derived from nominated benchmarks. The fire safety measures to be audited are a combination of physical features and all other relevant fire safety actions, provisions, and procedures, which define a level of safety to protect both life and asset in the event of fire. Fire safety measures include both physical ‘systems’ such as the fire resistance of the building structure, alarms and detectors or extinguishing equipment, as well as non-physical ‘systems’ such as emergency procedures and staff training programs.

This Standard relies upon records, including a schedule of all fire safety measures, being available and retained, thus ensuring compliance with the approved design and that an historical audit trail is available to provide information on a particular facility. This is especially critical when the fire safety aspects of a building have been designed around a performance-based fire engineering design rather than the deemed-to-satisfy provisions of the Building Code of Australia.

This Standard sets out procedures for the auditing of all fire safety measures within facilities, including those maintained to retain their ongoing efficacy in accordance with AS 1851, *Maintenance of fire protection systems and equipment*.

STANDARDS AUSTRALIA

Australian Standard Fire safety audits

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out minimum requirements for the structured auditing of fire safety measures in a facility against nominated audit criteria, including those relating to life safety. It covers requirements for the general principles of auditing, audit program management, the fire safety audit process and responsibilities, reporting, fire safety audit levels and audit team competence.

Guidance is included for evaluation of auditors and deriving fire safety audit criteria.

1.2 APPLICATION

This Standard is intended for use in all existing or proposed facilities where fire safety needs to be managed on an ongoing basis.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1851 Maintenance of fire protection systems and equipment

AS/NZS

ISO 19011 Guidelines for quality and/or environmental management systems auditing

ABCB

BCA The Building Code of Australia

1.4 DEFINITIONS

1.4.1 Approved design

The latest design of a facility that has been approved by the relevant authority having jurisdiction.

1.4.2 Audit

Systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.

NOTES:

- 1 Internal audits, sometimes called first-party audits, are conducted by, or on behalf of, the organization and may form the basis for an organization's self-declaration of conformity. In many cases, particularly in smaller organizations, independence can be demonstrated by the freedom from responsibility for the activity being audited.
- 2 External audits include those generally termed second- and third-party audits. Second-party audits are conducted by parties having an interest in the organization, such as customers, or by other persons on their behalf. Third-party audits are conducted by external, independent auditing organizations.

- 3 When two or more auditing organizations cooperate to audit a single auditee, this is termed a joint audit.

1.4.3 Audit client

Organization or person requesting the audit.

NOTE: The audit client may be the auditee or any other organization that has the regulatory or contractual right to request the audit.

1.4.4 Audit conclusion

Outcome of an audit, provided by the audit team after consideration of the audit scope, objectives and all audit findings.

1.4.5 Audit criteria

References against which audit evidence is compared, which comprises a set of requirements, policies, or procedures that the fire safety measures are intended to satisfy.

1.4.6 Auditee

Organization or person(s) responsible for the facility being audited.

1.4.7 Audit evidence

Records, statements of fact, or other information, observations and tests that are relevant to the audit criteria and are verifiable.

NOTE: Audit evidence may be qualitative or quantitative.

1.4.8 Audit findings

Results of the evaluations of the collected audit evidence against audit criteria that indicate either conformity or non-conformity.

NOTE: Audit findings may also indicate opportunities for improvement

1.4.9 Audit objectives

The specific purpose for the audit.

1.4.10 Audit plan

Description of the activities and arrangements for an audit.

1.4.11 Audit program

Set of one or more audits planned for a specific time frame and directed towards a specific objective or set of objectives.

NOTE: An audit program establishes when audits are due, the audit objectives or scope and location, necessary for planning, organizing and conducting the audits.

1.4.12 Audit scope

The extent and boundaries of an audit.

NOTE: The audit scope generally includes a description of the physical locations, organizational units, activities and processes, as well as the time period covered.

1.4.13 Audit team

One or more auditors conducting an audit, who are supported by technical experts if necessary. The audit team may be internal or external to the audit client, and may include auditors-in-training.

NOTE: An external audit team may be an organization contracted to provide auditing services.

1.4.14 Audit team leader

The auditor who leads the audit team and is responsible for the conduct of the audit and preparation of the audit findings.

NOTE: This person is usually appointed from the audit team.

1.4.15 Auditee

The organization or person(s) responsible for the facility being audited.

1.4.16 Auditing organization

The organization that provides the audit team.

1.4.17 Auditor

A person with the competence to conduct an audit. A member of the audit team.

1.4.18 Authority having jurisdiction

An independent agency authorized by legislation or regulation to issue determinations, orders, or other instructions in respect of any subject covered by this Standard.

NOTE: Where adoption of this Standard is not a requirement of a relevant authority but is a requirement of a body such as an insurance company or association, then that body, or its nominees, may perform the functions of the relevant authority for the purposes of this Standard.

1.4.19 Codes

A set of policies, guidelines or processes that govern procedural arrangements or technical provisions such as codes of practice, ministerial guidelines and practice notes.

1.4.20 Competence

Demonstrated personal attributes and demonstrated ability to apply knowledge and skills.

1.4.21 Critical component

Those fire safety elements or areas that are essential to the proper functioning of a fire safety measure, such as a fire indicator panel or common egress paths.

1.4.22 Facility

A building, place (including workplace) or organization that is to be audited.

1.4.23 Fire safety

The protection of life, assets and the environment from the effects of fire by the implementation of fire safety measures.

1.4.24 Fire safety actions

All human activity that contributes to fire safety.

NOTE: For example, preparedness for emergency and maintenance of a specific fire safety measure.

1.4.25 Fire safety component

A collection of fire safety elements, which contributes to a specific fire safety measure.

NOTE: For example, fire alarm control and indicating equipment and training for emergency.

1.4.26 Fire safety element

A fundamental part of a fire safety component, which contributes to a specific fire safety measure.

NOTE: For example, a smoke detection device, an evacuation exercise, or a single exit sign.

1.4.27 Fire safety measures

A combination of physical features and all other relevant fire safety actions, features, provisions and procedures, which defines a level of safety to protect life, assets and the environment, in the event of fire.

1.4.28 Guide

A person who assists the audit team but is not a member of the audit team.

1.4.29 Observer

A person who observes the audit but is not a member of the audit team.

1.4.30 Specific fire safety measure

A collection of fire safety elements and components intended to function as one system, for example, sprinkler system, emergency response plan, fire-resistant compartment boundaries.

1.4.31 Technical expert

A person who provides specific knowledge or expertise to the audit team but is not a member of the audit team.

1.4.32 Verification procedure

A set of tests and surveys undertaken to establish that a specific fire safety measure complies with the specifications of an approved design.

NOTE: Verification tests are generally equivalent to the commissioning tests specified by the relevant Standard for that specific fire safety measure.

1.5 PRINCIPLES OF AUDITING

Auditing is characterized by reliance on a number of principles. These make the audit an effective and reliable tool in support of management policies and controls, providing information on which an organization can act to improve its performance. Adherence to these principles is a prerequisite for providing audit conclusions that are relevant and sufficient for enabling auditors working independently from one another to reach similar conclusions in similar circumstances.

Auditors shall abide by the following principles:

- (a) *Ethical conduct* (The foundation of professionalism) Trust, integrity, confidentiality and discretion are essential to auditing.

NOTE: A number of professional organizations have developed codes of ethical conduct.

- (b) *Fair presentation* The obligation to report truthfully and accurately. Audit findings, audit conclusions and audit reports shall truthfully and accurately reflect the audit activities. Significant obstacles encountered during the audit and unresolved diverging opinions between the audit team and the auditee shall also be reported.
- (c) *Due professional care* The application of diligence and judgement in auditing. Auditors shall exercise care in accordance with the importance of the task they perform and the confidence placed in them by audit clients and other interested parties. Having the necessary competence is an important factor.
- (d) *Independence* The basis for the impartiality of the audit and objectivity of the audit conclusions. Auditors are independent of the activity being audited and are free from bias and conflict of interest. Auditors maintain an objective state of mind throughout the audit process to ensure that the audit findings and conclusions will be based only on the audit evidence.

C1.5(d) *Audits may be undertaken either internally or externally. Audits are often classified according the degree of independence required as follows:*

- 1 *First party, or internal audits conducted by, or on behalf of, the owner/occupier.*
- 2 *Audits of a second-party, for example, a supplier of critical services.*
- 3 *Third party audits conducted by an external independent body.*

- (e) *Evidence-based approach* The rational method for reaching reliable and reproducible audit conclusions in a systematic audit process. Audit evidence shall be verifiable. In many cases it is based on samples of the information available, since an audit is conducted during a finite period of time and with finite resources. The appropriate use of sampling is closely related to the confidence that can be placed in the audit conclusions.
- (f) *Confidentiality* The audit process often involves audit evidence that is confidential to the auditee and the auditor shall respect the confidentiality of all audit evidence and findings.
- (g) *Privacy* The audit process shall be conducted in accordance with applicable privacy legislation.

1.6 LEVELS OF AUDIT

This Standard specifies three levels of fire safety audit, differentiated by the type and extent of audit evidence to be collected and, therefore, the level of confidence that can be placed in the audit conclusion. The level of audit undertaken shall be appropriate to the audit objectives.

For the purpose of this Standard, the levels of fire safety audit shall be as follows:

- (a) *Level 1* Desktop review of documentation.
- (b) *Level 2* Level 1 audit plus—
 - (i) checking the critical components of the fire safety measures; and
 - (ii) interviewing personnel responsible for fire safety measures.
- (c) *Level 3* Level 1 audit plus—
 - (i) interviewing personnel responsible for fire safety measures; and
 - (ii) witnessing or conducting full verification procedures for the fire safety measures.

The levels of audit are summarized in Table 1. Clauses 3.6.3, 3.6.4 and 3.6.5 set out the specific requirements for each level of audit.

The audit levels may be applied to design, installation and maintenance.

C1.6 *The following is a summary of design, installation and maintenance of fire safety measure:*

- (a) *Design—Fire safety measures are designed so that they comply with appropriate statutory and client requirements and are fit for purpose.*
- (b) *Installation—Fire safety measures are installed and commissioned so that they function in accordance with design parameters.*
- (c) *Maintenance—Fire safety measures are maintained throughout their life so that in an emergency they can be relied on to operate in accordance with the limitations of their design.*

TABLE 1
LEVELS OF FIRE SAFETY AUDITS

	Document	Critical components check	Interviews	Witness/conduct full verification procedures
Level 1	✓			
Level 2	✓	✓	✓	
Level 3	✓		✓	✓

SECTION 2 MANAGING AN AUDIT PROGRAM

2.1 AUDIT PROGRAM

Managing an audit program is distinctly separate to performing or undertaking an audit and may be undertaken either internally or externally to the organization.

An audit program may include one or more audits, depending on the size, nature and complexity of the audit task.

NOTE: These audits may have a variety of objectives and may be undertaken individually or in association with other audits, such as occupational health and safety, underwriting and risk audits.

An auditing organization may establish more than one audit program.

Two or more auditing organizations may cooperate, as part of their audit programs, to conduct a joint audit. In such a case, special attention shall be paid to the division of responsibilities, the provision of any additional resources, the competence of the audit team and the appropriate procedures. The audit plan shall identify the roles of each member of the audit team and the criteria each member is to audit.

An audit program shall include all activities necessary for planning and organizing the types and number of audits, and for providing resources to conduct them effectively and efficiently within the specified time frames.

2.2 AUDIT PROGRAM RESPONSIBILITIES

2.2.1 General

The auditing organization shall grant the authority for managing the audit program. Prior to undertaking any audit, the responsibility for the management of the audit program shall be clearly established, resources allocated and procedures identified.

NOTE: Authorities recognized under relevant legislation may initiate audits under statutory powers as applicable.

2.2.2 Audit program manager competence

The responsibility for managing an audit program shall be assigned to one or more individuals with the following qualities:

- (a) A general understanding of audit principles.
- (b) An understanding of the competence requirements for auditors.
- (c) An understanding of the application of audit techniques.
- (d) Management skills.
- (e) A general technical understanding relevant to the activities to be audited.

NOTE: Advice may be sought from technical specialists

2.2.3 Audit program manager responsibilities

Those assigned the responsibility for managing the audit program shall—

- (a) establish, implement, monitor, review and improve the audit program;
- (b) establish the objectives of the audit program;
- (c) establish the extent of the audit program;
- (d) establish responsibilities and procedures;
- (e) identify the necessary resources and ensure their provision;

- (f) ensure the implementation of the audit program;
- (g) ensure the distribution of the audit findings;
- (h) ensure notification of any lapses in the audit program to management having relevant authority and those having duty of care to implement applicable remedial action; and
- (i) ensure that appropriate audit program records are maintained.

2.3 AUDIT PROGRAM OBJECTIVES

Prior to undertaking an audit program, the objectives shall be established to direct the planning and conduct of audits.

The objectives of an audit program shall be based on consideration of—

- (a) management priorities;
- (b) commercial intentions;
- (c) statutory, regulatory and contractual requirements;
- (d) occupant requirements;
- (e) needs of other interested parties; and
- (f) hazards and risks to the organization.

C2.3 Audit program objectives include the following:

- (a) *To meet requirements of the authority having jurisdiction.*
- (b) *To verify conformance with contractual requirements.*
- (c) *To obtain and maintain the confidence of an insurance underwriter.*
- (d) *To comply with provisions for a contract of sale or lease agreement.*
- (e) *To contribute to the improvement of fire safety.*
- (f) *To meet environmental standards.*
- (g) *To meet the requirements of management in use plans.*
- (h) *To audit the requirements of a performance-based fire strategy.*
- (i) *To establish compliance with the deemed-to-satisfy requirements of the Building Code of Australia (BCA).*

2.4 AUDIT PROGRAM EXTENT

The extent of an audit program shall be determined prior to undertaking any audit program. This may vary and will be influenced by the size, nature and complexity of the organization to be audited. The following shall be considered when determining audit program extent:

- (a) The scope, objective and duration of each audit to be conducted.
- (b) The type and level of audits.
- (c) The frequency of audits to be conducted.
- (d) The number, importance, complexity, similarity and locations of the activities to be audited.
- (e) Standards, statutory, regulatory and contractual requirements and other audit criteria.
- (f) The need for accreditation or registration/certification as an audit outcome.
- (g) The conclusions of previous audits or results of a previous audit program review.

- (h) Any language, cultural and social issues.
- (i) The concerns of interested parties.
- (j) Any significant changes to a facility or structure, or its operations.

NOTE: This is particularly important if fire safety is based on performance-based solutions reliant upon specific features of the facility or its operation.

2.5 AUDIT PROGRAM RESOURCES

When identifying resources for the audit program, consideration shall be given to—

- (a) the resources necessary to finance, develop, implement, manage and improve audit activities;
- (b) the type and level of audit;
- (c) the audit techniques;
- (d) the availability of auditors and technical experts having competence appropriate to the particular audit program objectives;
- (e) the extent of the audit program; and
- (f) the travelling time, accommodation and other auditing needs.

2.6 AUDIT PROGRAM PROCEDURES

Audit program procedures shall address the following:

- (a) Planning and scheduling audits.
- (b) Assuring the competence of auditors and audit team leaders.
- (c) Selecting appropriate audit teams and assigning their roles and responsibilities.
- (d) Conducting audits.
- (e) Conducting audit follow-up, if applicable.
- (f) Maintaining audit program records.
- (g) Monitoring the performance and effectiveness of the audit program.
- (h) Reporting the findings of the audit program.

For smaller tasks, the activities above may be addressed in a single procedure.

2.7 AUDIT PROGRAM IMPLEMENTATION

The implementation of an audit program shall address the following:

- (a) Communicating the audit program to relevant parties.
- (b) Coordinating and scheduling audits and other activities relevant to the audit program.
- (c) Establishing and maintaining a process for the evaluation of the auditors and their continual professional development.
NOTE: Appendix A includes guidance on evaluation of auditors.
- (d) Ensuring the selection of audit teams.
- (e) Providing necessary resources to the audit teams.
- (f) Ensuring the conduct of audits according to the audit program.
- (g) Ensuring the control of records of the audit activities.

- (h) Ensuring review and approval of audit reports, and ensuring their distribution the audit client and other specified parties.
- (i) Ensuring audit follow-up, if applicable.

2.8 AUDIT PROGRAM RECORDS

Records shall demonstrate that the audit program requirements have been effectively fulfilled and shall include at least the following:

- (a) Records related to individual audits, such as—
 - (i) audit plans;
 - (ii) audit reports;
 - (iii) non-conformity reports;
 - (iv) corrective and preventive action reports;
 - (v) audit follow-up reports, if applicable; and
 - (vi) references to documents examined.
- (b) Results of audit program review.
- (c) Records related to audit personnel covering subjects such as—
 - (i) audit team selection;
 - (ii) auditor competence and performance evaluation; and
 - (iii) maintenance and improvement of auditor competence.

2.9 AUDIT PROGRAM MONITORING AND REVIEWING

The implementation of the audit program shall be monitored and, at appropriate intervals, reviewed to assess whether its objectives have been met and to identify opportunities for improvement.

The following factors shall be considered in the review of the audit program:

- (a) The ability of the audit teams to implement the audit plan.
- (b) The conformity with audit programs and schedules.
- (c) The feedback from audit clients, auditee and auditors.
- (d) The results and trends from monitoring.
- (e) The conformity with procedures.
- (f) The audit program record management.
- (g) The consistency in performance between audit teams.

Results of audit program reviews shall identify opportunities for improvement and shall lead to corrective and preventive actions where applicable.

NOTE: Tools such as performance indicators may be used to monitor and review audit program implementation characteristics and may use feedback from audit clients, auditors and auditee.

2.10 CONTROL OF RECORDS

All records associated with fire safety audits shall be controlled. Records shall be established and maintained to provide evidence of conformity and compliance to requirements and the effective operation of all fire safety measures.