Amendment 1- April 1979.
2- June 1980
DR 78146 of Sept 1978

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see also SAA. Australian Standards on fire protection (Seminar)

AS 2118 — 1978
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Australian Standard 2118—1978

SAA CODE FOR AUTOMATIC FIRE SPRINKLER SYSTEMS

STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter

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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Water and Sewerage Authorities

Building Owners and Managers Association of Australia

Commonwealth Fire Board

Department of Construction

Fire Fighting Authorities

Fire Protection Industry Association of Australia

Insurance Council of Australia

Interstate Standing Committee on Building Regulations

Telecom Australia

This standard, prepared by Committee BD/18/4, Automatic Sprinkler Installations, was approved on behalf of the Council of the Standards Association on 10 October 1977, and was published on 1 March 1978.

To keep abreast of progress in industry, Australian standards are regularly reviewed. Suggestions for improvements to published standards, addressed to the head office of the Association, are welcomed.

This standard was issued in draft form for public review as DR 75124.

Amendment No 1
April 1979

STANDARDS ASSOCIATION OF AUSTRALIA

Incorporated by Royal Charter

AMENDMENT No 1

to

AS~~2218~~ 2418— 1978

SAA CODE FOR AUTOMATIC FIRE SPRINKLER SYSTEMS

Summary: The following sections of this standard are covered by this amendment: Contents; Rules 1.2.19, 2.2.3, 2.2.4.1, 2.3, 3.2.3.2, 4.3, 4.3.1, 4.12.1, 4.12.2, 4.12.3, 4.13.1, 5.2, 5.4.3, 5.6.1.2, 7.3, 9.4.1.1, 11.4.1.1, 11.4.2.7; Tables 2.3.2.3, 2.4.1, 10.2.2.2; Figs 4.12.1, 11.2.2.5 and Index.

Substitute the attached pages for the existing pages.

NOTE: Each page on which an alteration has been made has been reprinted with a marginal bar and the notation 'A1' alongside the amended portion. The foot of every page that has been changed in any way bears the additional notation '1979-05-01 A1'.

Published on 1 May 1979.

Amendment No 2
June 1980

STANDARDS ASSOCIATION OF AUSTRALIA

Incorporated by Royal Charter

AMENDMENT No 2

to

AS 2118 — 1978

SAA CODE FOR AUTOMATIC FIRE SPRINKLER SYSTEMS

Summary: The following sections of this standard are covered by this amendment: Contents; Clause 7.15 (new); Figs 7.15.4, 7.15.6 (new); Table 7.15.8 (new).

Published on 1 July 1980.

Substitute the attached 'Contents' pages for existing pages.

Insert attached additional pages in Section 7.

Substitute attached 'Index' pages for existing pages.

AUSTRALIAN STANDARD

RULES FOR AUTOMATIC FIRE SPRINKLER SYSTEMS

known as the

SAA CODE FOR AUTOMATIC FIRE SPRINKLER SYSTEMS

AS 2118—1978

First edition (endorsement of Seventh edition of FOC Rules) (AS CA16)	1939
Second edition (endorsement of Eighth edition of FOC Rules)	1948
Endorsement withdrawn	1957
Third edition (endorsement of Ninth edition of FOC Rules)	1962
Fourth edition (based on 29th edition of FOC Rules)	1971
Supplement No 1 (metric)	1974
Revised and issued as AS 2118	1978

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PREFACE

This standard was prepared by the Association's Committee on Automatic Sprinkler Installations as a revision and metrication of AS CA16—1971 (including Supplement No 1, January 1974) which it accordingly supersedes.

The technical content has not been altered greatly, but the format has been changed to conform to the normal style of Australian standards. In addition, the standard is now in looseleaf style, to permit replacement of pages when rules are amended (for an explanation of the method of identifying amended rules see special note following the Preface).

AS CA16 was, basically, an endorsement of the 29th Edition of the Rules of the (U.K.) Fire Offices' Committee for Automatic Sprinkler Installations, with minor amendments and additions to suit Australian conditions. That document was not circulated for public review; this revision was circulated for public review and much of the comment that was received assisted the committee in the identification of requirements which created problems of interpretation.

Periodic test and maintenance procedures are now in a separate standard, AS 1851, Rules for Maintenance of Fire Protection Equipment, Part 3—Automatic Fire Sprinkler Systems.

This standard requires reference to the following standards:

AS 1074 Steel Tubes and Tubulars Threaded or Suitable for Threading with Pipe Threads of Whitworth Form
AS 1159 Polyethylene (Polythene) Pipe for Pressure Applications
AS 1281 Code of Practice for Cement Mortar Lining of Steel Pipes and Fittings
AS 1349 Bourdon Tube Pressure and Vacuum Gauges
AS 1432 Copper Tubes for Water, Gas and Sanitation
AS 1477 Unplasticized PVC (UPVC) Pipes and Fittings for Pressure Application
AS 1516 Code of Practice for Cement Mortar Lining of Pipelines in Situ
AS 1530 Methods for Fire Tests on Building Materials and Structures
Part 1—Combustibility Test for Materials
Part 4—Fire-resistance Test of Structures
AS 1567 Wrought Copper and Copper Alloy Rods, Bars and Sections for General Engineering Purposes
AS 1579 Arc Welded Steel Pipes for Water and Gas
AS 1657 SAA Code for Fixed Platforms, Walkways, Stairways and Ladders
AS 1670 SAA Code for Automatic Fire Alarm Installations
AS 1674 SAA Cutting and Welding Safety Code
AS 1711 Asbestos Cement Pressure Pipes
AS 1723 Centrifugally Cast Grey Iron Pressure Pipes (excluding Pipes with Bolted Gland Joints)
AS 1724 Cast Grey Iron Pressure Pipes and Fittings with Bolted Gland Joints
AS 1769 Welded Stainless Steel Tubes for Plumbing Applications
AS 1835 Seamless Steel Tubes for Pressure Purposes
AS 1836 Welded Steel Tubes for Pressure Purposes
AS 1851 Rules for Maintenance of Fire Protection Equipment
Part 3—Automatic Fire Sprinkler Systems
AS 1905 SAA Fire Door Code
Part 1—Fire Doors
AS 1981 Stationary Batteries of the Lead-acid Pasted Plate Type
AS 2032 Code of Practice for the Installation of UPVC Pipe Systems
AS 3000 Part 1—SAA Wiring Rules
AS K84 All Welded Steel Drums
BS 1042 Methods for the Measurement of Fluid Flow in Pipes
Part 1—Orifice Plates, Nozzles and Venturi Tubes
BS 2869 Petroleum Fuels for Oil Engines and Burners

AMENDMENTS

As indicated above, when rules are amended (or otherwise altered, added to, or deleted), the relevant pages will be reprinted, and the Code user will be invited to substitute these pages for the existing pages. Each page as presently printed carries a key to the date of publication, located at the bottom of the page, in the form year, month and day, plus the letters 'FP' for first printing, thus: 1978-03-01 FP.

When an amendment or corrigendum is issued the relevant pages will carry a similar key located under the first one with a reference to the amendment, corrigendum, etc; for example, 1978-11-01 A1 (for Amendment No 1) or 1978-12-01 C1 (for first Corrigendum). The amended portion will be indicated by means of a marginal rule with the letters A1, etc alongside.

A batch of altered pages will be accompanied by a summary sheet, which users may file at the back of the Code for reference. In addition the Code includes a general record sheet for amendments, etc.

It is strongly recommended that users, when quoting a particular requirement in this Code, state the rule number, page number, and the last printing key (i.e. the bottom one in a sequence).

SEE AMENDMENT 2 - June 1980.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard Rules for AUTOMATIC FIRE SPRINKLER SYSTEMS

FOREWORD

This edition of the Rules for Automatic Fire Sprinkler Systems is a complete revision of the former standard, viz AS CA16—1971.

The metric units specified are generally in line with those in the 29th Edition of the FOC Rules except that pascal is used in place of the bar for the SI unit of pressure and the litre in place of the cubic decimetre for the unit of volume.

Automatic fire sprinkler systems will not be regarded as complying with these Rules unless the installation is carried out by personnel recognized by the authority having jurisdiction as being qualified in this class of work.

NOTE: The Insurance Council of Australia is recognized as a body with the necessary expertise to assist authorities having jurisdiction in the interpretation and application of the requirements of these Rules.

PART 1—SCOPE, DEFINITIONS, CLASSIFICATION AND DESIGN DATA

SECTION 1. SCOPE AND DEFINITIONS

1.1 SCOPE. These Rules (hereafter referred to as 'the Code') set out the minimum requirements for the installation of automatic sprinkler systems in buildings. Appendices are included on orifice plates, calculation of extra high hazard systems, completion certificate, and water supply test data sheet.

1.2 DEFINITIONS. For the purpose of the Code the following definitions shall apply:

1.2.1 Alarm valve — a non-return valve which allows the water to enter the installation and operate alarms when the installation pressure falls below the water supply pressure.

1.2.2 Approved — Approved by the authority having jurisdiction.

NOTE: For approval of system components it is essential that close control be exercised in relation to what are to be regarded as approved components. At this time the 'approved list' compiled by the Insurance Council of Australia is the only authoritative source of information as to what should be accepted as approved components, and all authorities having jurisdiction should, in the interests of uniformity, base their approval of components on this 'approved list'.

1.2.3 Assumed area of operation — the area, i.e. the number of sprinklers likely to operate, in a sprinklered building which is considered may be involved in a fire. The assumed area of operation is different in each hazard class.

1.2.4 Authority having jurisdiction—A Statutory Authority administering Acts of Parliament or regulations under such acts.

NOTE: There may be one or more authorities having jurisdiction in relation to any particular installation, or even for some aspect thereof. The Insurance Council of Australia is recognized as a body with the necessary expertise to assist authorities having jurisdiction in the interpretation and application of the requirements of the Code.

If the sprinkler system is one provided by virtue of Statutory Regulations, the relevant department will have jurisdiction. If it is a matter of fire insurance, the relevant insurance company or association may have jurisdiction.

1.2.5 Authorized inspector — an inspector appointed by the authority having jurisdiction.

1.2.6 Building owner — the owner of a building or his authorized representative.

1.2.7 Combustible —

(a) When applied to a material, means combustible when tested in accordance with AS 1530, Part 1.*

(b) When applied to construction or a part of a building, means constructed wholly or in part of materials that are combustible.

1.2.8 Cut-off sprinkler (or sprinklers) — a sprinkler (or sprinklers) in a non-sprinklered building or the non-sprinklered portion of a sprinklered building immediately over the lintel of a door or window, or similar opening, in either case to provide full protection at the opening.

1.2.9 Density of discharge — the depth of water discharged in a given period of time.

NOTE: The density of discharge has traditionally been measured as volume per area per time. In conversion to SI units, cubic millimetres per square millimetre per minute has resulted in the unit being expressed as millimetres per minute. It is equivalent to rain gauge measurement per unit time.

* AS 1530, Methods for Fire Tests on Building Materials and Structures, Part 1—Combustibility Test for Materials.