AS 2419.1—2005
(Incorporating Amendment No. 1)

Australian Standard®

Fire hydrant installations

Part 1: System design, installation and commissioning

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The following are represented on Committee FP-009:

- Association of Hydraulic Services Consultants Australia
- Australasian Fire Authorities Council
- Australian Building Codes Board
- Certification Interests (Australia)
- Copper Development Centre—Australia
- Department of Defence (Australia)
- Fire Protection Association Australia
- Institution of Engineers Australia
- Plastics Industry Pipe Association of Australia
- Property Council of Australia
- Water Services Association of Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee FP-009, Fire Hydrant Installations, to supersede AS 2419.1—1994.

This Standard incorporates Amendment No. 1 (June 2007). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The changes to the previous edition of this Standard comprise the following:

(a) A stated objective.

(b) Clarification of intent.

(c) A restructure of the document into more user friendly equipment-specific sections.

(d) Incorporation of all revisions contained in Amendment No. 1, which expanded the requirements for fire hydrant system design, acceptable sources of water supply, water supply capacities and general revisions to account for advances in technology for materials, methods of installation and firefighting requirements.

(e) Inclusion of a commentary to some clauses.

This Standard will be referenced in the Building Code of Australia 2006; thereby superseding AS 2419.1—1994, which will be withdrawn 12 months from the date of publication of this Standard.

Commentary is for information only and does not need to be followed for compliance with the Standard.

Notes to the text contain information and guidance. They are not an integral part of the Standard.

Illustrations in this Standard are purely diagrammatic and are intended to show functional requirements only, not methods of construction.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the Appendix to which they apply. A ‘normative’ Appendix is an integral part of a Standard, whereas an ‘informative’ Appendix is only for information and guidance.

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FOREWORD

The availability of fire hydrants is essential to fire protection. Fire hydrants may be used to control the spread of fire, protect neighbouring properties and extinguish an outbreak of fire, or extinguish a fire controlled by an automatic fire protection system, such as sprinkler, gaseous and foam systems.

Although fire hydrants are installed within properties for use by the fire brigade, they may also be used by trained personnel.

An adequate source of water is a fundamental consideration in the design of a fire hydrant installation and may comprise water from more than one source. A source based on a 4 h duration at the flow rates given in this Standard is regarded as the minimum safe quantity to enable fire brigades to commence an initial attack to limit fire spread, protect neighbouring properties and extinguish the fire.

Fire hydrant systems need to be regularly inspected, tested and maintained to ensure continued readiness for use. Where pump sets are installed, regular maintenance is essential.

Fire brigade equipment and firefighting procedures may vary between and within states and should be considered in the fire hydrant system design.

STANDARDS AUSTRALIA

Australian Standard
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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out requirements for the design, installation, and commissioning of fire hydrant systems to protect properties. It applies to fire hydrant systems installed to protect buildings, structures, storage yards, marinas and associated moored vessels, wharves, and plant. This Standard also applies to street fire hydrants used in lieu of on-site fire hydrants or to supplement the coverage afforded by street fire hydrants.

A1 This Standard does not apply to (but may be referenced during design for) the protection of special hazards such as flammable and combustible liquid installation (see Note 4).

NOTES:

1 Requirements for maintenance of fire hydrant installations are given in AS 1851 (see Appendix G).

2 Appendix C sets out a flow chart for a fire hydrant system design based on the type and capability of the water supply.

3 Hose couplings and the regions in which they are used in Australia are given in Appendix E.

A1 4 General guidance for fire hydrant installations in special hazard areas is given in Appendix H.

1.2 OBJECTIVE

The objective of this Standard is to specify minimum requirements for the design, installation and commissioning of fire hydrant systems which—

(a) will augment the efficient extinguishment of fire within the boundaries of the site;

(b) can be utilized to minimize fire spread within or between one property or building and another;

(c) can be used by trained firefighting personnel; and

(d) are compatible with the local fire brigade's firefighting equipment.

1.3 NORMATIVE REFERENCES

The normative documents referenced in this Standard are listed in Appendix A.

NOTE: Documents referenced for informative purposes are listed in Appendix G.

1.4 DEFINITIONS

For the purpose of this Standard, the definitions given in AS 2484.2, AS/NZS 3500.0 and those below apply.

