



Member of the FM Global Group

Examination Standard for Fire Department Connections

Class Number 1530

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Foreword

This standard is intended to verify that the products and services described will meet stated conditions of performance, safety and quality useful to the ends of property conservation. The purpose of this standard is to present the criteria for examination of various types of products and services.

Examination in accordance with this standard shall demonstrate compliance and verify that quality control in manufacturing shall ensure a consistent and reliable product.

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1 INTRODUCTION

1.1. Purpose

- 1.1.1. This standard states testing and certification requirements for fire department connections which are used to provide a means to pump water into a sprinkler system, or standpipe, from a public hydrant or other water supply.
- 1.1.2. Testing and certification criteria may include performance requirements, marking requirements, examination of manufacturing facility(ies), audit of quality assurance procedures, and a surveillance program.

1.2. Scope

- 1.2.1. This standard encompasses the design and performance requirements for fire department connections.

1.3. Basis for Requirements

- 1.3.1. The requirements of this standard are based on experience, research and testing, and/or the standards of other organizations. The advice of manufacturers, users, trade associations, jurisdictions and/or loss control specialists was also considered.
- 1.3.2. The requirements of this standard reflect tests and practices used to examine characteristics of fire department connections for the purpose of obtaining certification.

1.4. Basis for Certification

Certification is based upon satisfactory evaluation of the product and the manufacturer in the following major areas:

- 1.4.1. Examination and tests on production samples shall be performed to evaluate:
 - the suitability of the product;
 - the performance of the product as specified by the manufacturer and required for certification,
 - the durability and reliability of the product.
- 1.4.2. An examination of the manufacturing facilities and audit of quality control procedures may be conducted to evaluate the manufacturer's ability to consistently produce the product which is examined and tested, and the marking procedures used to identify the product. Subsequent surveillance may be required by the certification agency in accordance with the certification scheme to ensure ongoing compliance.

1.5. Basis for Continued Certification

The basis for continual certification may include the following based upon the certification scheme and requirements of the certification agency:

- production or availability of the product as currently certified;

- the continued use of acceptable quality assurance procedures;
- compliance with the terms stipulated by the certification;
- satisfactory re-examination of production samples for continued conformity to requirements; and
- satisfactory surveillance audits conducted as part of the certification agency's product surveillance program.

1.6. Effective Date

The effective date of this examination standard mandates that all products tested for certification after the effective date shall satisfy the requirements of this standard.

The effective date of this standard is eighteen (18) months after the publication date of the standard for compliance with all requirements.

1.7. Normative References

The following standards, test methods, and practices are referenced in this standard:

ANSI / IEEE / ASTM SI 10, *American National Standard for Metric Practice*

NFPA 1963, *Standard for Fire Hose Connections*

1.8. Terms and Definitions

For purposes of this standard, the following terms apply:

Accepted – This term refers to installations acceptable to the authority enforcing the applicable installation rules. Acceptance is based upon an overall evaluation of the installation. Factors other than the use of certified equipment impact upon the decision to accept, or not to accept. Acceptance is not a characteristic of a product. It is installation specific. A product accepted for one installation may not be acceptable elsewhere.

End Connections – The means by which components of a sprinkler system are connected to the sprinkler fitting or piping. Typical end connections are grooved and threaded.

Rated Working Pressure – This is the maximum sustained pressure at or below which the fire department connections shall operate trouble free. This also sets the basis for the testing described in Section 4, Performance Requirements. The minimum pressure rating considered for certification is 175 psi (1205 kPa).

Standpipe – This term refers to the piping within a building that provides water supply to the hose connections, hose stations, as well as sprinkler systems (on combined systems). Standpipes are classified as either "Automatic" or "Manual", where the difference is whether or not the standpipe is connected to a water supply. If connected to a water supply on continuous basis, and all that is required to get water at the hose valve is to open the hose valve, then the system is regarded as "Automatic". For standpipe systems that receive primary water supply from the fire department connection at the exterior wall of the building, this is regarded as "Manual". Secondary Classifications for standpipes are "Dry" or "Wet" which is a reference to the normal condition within the actual standpipe. Standpipe systems are further classified as vertical when supplying water to hose connections floor to floor, and horizontal when supplying water to hose connections on the same floor.