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Examination Standard for Steel Pipe for Automatic Fire Sprinkler Systems

Class Number 1630

June 2021

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.

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Purpose

1.1.1 This standard states testing and certification requirements for steel pipe for use in aboveground fire sprinkler systems.

1.1.2 Testing and certification criteria may include, but are not limited to, 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 applies to the design and performance requirements for steel pipe for use in aboveground fire sprinkler systems.

1.2.2 This standard is limited to NPS (Nominal Pipe Size 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8, 10 and 12 steel pipe. Note that NPS 1/2 pipe, for example, may be referred to as 1/2 in NPS, or 1/2 in pipe. Larger sizes of steel pipe may be evaluated on a case-by-case basis. Certification of NPS 1/2 and 3/4 pipe is permitted for use as valve trim, gauge connections, and for other peripheral service. Certification for use in aboveground fire sprinkler systems is limited to steel pipe NPS 1 through 12. The waterflow path of the sprinkler system cannot be designed using pipe smaller than NPS 1. In cases where metric sized steel pipe is to be examined, test criteria comparable to the equivalent for nearest nominal diameter (DN) size shall be used (Refer to Table 1.2.7).

1.2.3 Steel pipe may be certified under this standard for use in either wet or dry pipe sprinkler systems, or both, but in all cases for aboveground service only.

1.2.4 If the steel pipe includes a manufacturer-applied internal coating and is intended for use in a hybrid sprinkler system (*i.e.,* plastic pipe connected to internally-coated steel pipe), evaluation of the internally-coated steel pipe under this standard shall include chemical compatibility testing with all certified plastic pipe and fittings (Refer to Appendix I).

1.2.5 This standard encompasses steel pipe manufactured by the furnace welded, continuous butt-weld, or electric resistance welded process. Other methods of manufacturing, such as spiral welded, or seamless pipe may be evaluated under this standard as long as the intent of this standard is met.

1.2.6 This standard encompasses “Specialty Tubulars” for use with mechanical press connections. Like Schedule 5 steel pipe, “Specialty Tubulars” are limited for use in branch line service, but only after a transition fitting from steel pipe. These “Specialty Tubulars” are limited to sizes NPS 1 through 2 when manufactured in carbon steel, and NPS 1 through 4 when manufactured in stainless steel.