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Issued: January 13, 2006 Revised: April 21, 2009

REPORT

on

Automatic Sprinklers

The Viking Corporation Hastings, MI

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### GENERAL

#### INTRODUCTION:

This Report describes the investigation of automatic sprinklers intended to be installed in accordance with the National Fire Protection Association Standard For The Installation of Sprinkler Systems, NFPA 13.

### OBJECT:

The object of this investigation was to determine compliance of the automatic sprinklers with the Standard For Automatic Sprinklers For Fire Protection Service, UL 199 and the Standard for Automatic Sprinkler for Fire Protection Service, ULC/ORD C199-03.

#### PLAN:

The investigation of the automatic sprinklers consisted of conducting a product conformance evaluation and performance testing as described in UL 199,  $11^{th}$  Edition and C199-03,  $2^{nd}$  Edition.

### DESCRIPTION

### PRODUCT COVERED:

Automatic Sprinklers of the glass bulb type of the following types and temperature ratings.

	Model	Description	Remarks
USL, CNL,	VK461+	Concealed Pendent 2.8 K-factor, quick response sprinkler for a maximum pressure of 175 psig.	Sprinklers Rated 155, 175 and 200°F with 135 and 165°F cover plates
USL, CNL,	VK462+#	Concealed Pendent 5.6 K-factor, quick response sprinkler for a maximum pressure of 175 psig.	Sprinklers Rated 155, 175 and 200°F with 135 and 165°F cover plates
USL, CNL,	VK463	Concealed Pendent 5.6 K-factor, quick response high pressure sprinkler for a maximum pressure of 250 psig.	Sprinklers Rated 155, 175 and 200°F with 135 and 165°F cover plates
USL, CNL,	VK464	Concealed Pendent 8.0 K-factor, quick response sprinkler for a maximum pressure of 175 psig.	Sprinklers Rated 155, 175 and 200°F with 135 and 165°F cover plates
USL, CNL,	VK465+	Concealed Pendent 4.2 K-factor, quick response sprinkler for a maximum pressure of 175 psig.	Sprinklers Rated 155, 175 and 200°F with 135 and 165°F cover plates
USL, CNL	VK632	Standard orifice, 5.6K, extended coverage light hazard concealed pendent for a maximum pressure of 175 psig.	Rated 135,155,175, 200°F with 135 and 165°F coverplates
USL, CNL	VK634	Large orifice, 8.0K, extended coverage light hazard concealed pendent for a maximum pressure of 175 psig.	Rated 135,155,175, 200°F with 135 and 165°F coverplates
+ - May uti	llize a 1 in. ad	ljustable feature with 1 in.	male or female threads.

# - May utilize a gasket/seal ring on the coverplate.

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Issued: 2006-01-13 Revised: 2008-04-03

#### CONSTRUCTION DETAILS:

The devices have been examined and found to comply with the Standard For Automatic Sprinklers in effect as of the date of this Report.

The devices forming the subject of this Procedure are automatic sprinklers of the quick response glass bulb type consisting of a brass frame, deflector, deflector button, pin arms, pip cap assembly, Teflon coated Belleville spring water seal, yoke, component recognized glass bulb, stainless steel compression screws, and a cover plate assembly.

\*

The chart below illustrates the decorative type of paints/finishes to be utilized on the coverplates. The application process for these paint types is to be performed by the Viking Corp.

Paint Type	Maximum Thickness, Mils (in.)	Paint Color
Acrylic Latex	1.5 (0.0015)	Any
Lacquer	2.0 (0.002)	Any
Enamel	2.0 (0.002)	Any
Alkyd Enamel	3.0 (0.003)	Any
Latex	4.0 (0.004)	Any
Urethane	4.0 (0.004)	Any
Catalyzed Epoxy	5.0 (0.005)	Any
Acrylic	5.0 (0.005)	Any

#### USE:

The products covered by this Report are for use in accordance with the National Fire Protection Association Standard For The Installation of Sprinkler Systems, NFPA 13, and the manufacturer's installation instructions.

# TEST RECORD INDEX

DESCRIPTION	TEST RECORD NO.	
Model VK462, 5.6 K Concealed Pendent Sprinkler	1	
Model VK463, 5.6 K Concealed Pendent High Pressure Sprinkler	2	
Model VK464, 8.0 K Concealed Pendent Sprinkler	3	
Model VK461, 2.8 K Concealed Pendent Sprinkler	4	
Model VK461, 2.8 K Concealed Pendent Sprinkler Utilizing A	5	
Modified Deflector and Button		
Model VKxxx concealed sprinklers utilizing various	6	
decorative coverplate paints		
Model VK462,5.6K Concealed Pendent Sprinkler Utilizing a Modified Deflector	7	
Model VK632, 5.6K, Extended Coverage Light Hazard Concealed	8	
Pendent Sprinklers		
Model VK634, 8.0K, Extended Coverage Light Hazard Concealed	9	
Pendent Sprinklers		
Model VK465, 4.2 K Concealed Pendent Sprinkler	10	
Model VK462, 5.6 K Adjustable Drop Concealed Pendent	11	
Sprinkler		
Models VK461, 2.8 K and VK465, 4.2 K Adjustable Drop	12	
Concealed Pendent Sprinklers		
Model VK464, 8.0 K Concealed Pendent Sprinkler Utilizing An	13	
Alternate Housing and Pin Arms		
Model VK634, 8.0K, Extended Coverage Light Hazard Concealed	14	
Pendent Sprinkler Utilizing a Modified Deflector		
Model VK462, VK632, VK634 Concealed Pendent Sprinklers	15	
Utilizing UNS-S43000 Stainless Steel Deflector Pins		
Model VK463, 5.6 K Concealed Pendent Sprinkler Utilizing An	16	
Alternate Housing and Pin Arms		
Model VK462,5.6K Concealed Pendent Sprinkler Utilizing A	17	
Gasket/Seal Ring on the Coverplate		

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## CONCLUSION

Samples of the product covered by this Report have been found to comply with the requirements covering the class and the products are judged to be eligible for Listing and Follow-Up Service. The manufacturer is authorized to use the Laboratories' Mark on such products which comply with the Follow-Up Service Procedure and any other applicable requirements of Underwriters Laboratories Inc. Only those products which properly bear the Laboratories' Mark are considered as Listed by Underwriters Laboratories Inc.

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