

File Ex643

Project 92NK11714  
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Project 03NK09286

Issued: June 11, 1993  
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REPORT

on

AUTOMATIC SPRINKLERS

Viking Corporation  
Hastings, MI

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File Ex643

Page G1

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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 Model M Quick Response ELO Extended Coverage Light Hazard pendent and recessed pendent sprinklers utilizing a 3 mm XS glass bulb rated 135, 155, and 175°F with the Standard For Automatic Sprinklers For Fire Protection Service, UL 199.

##### PLAN:

\* The investigation of the Model M Quick Response ELO Extended Coverage Light Hazard pendent and recessed pendent sprinklers utilizing a 3 mm XS bulb rated 135, 155, and 175°F consisted of conducting a product conformance evaluation and performance testing as described in UL 199.

## DESCRIPTION

PRODUCT COVERED:

Model M Quick Response ELO Extended Coverage Light Hazard pendent (VK608), recessed pendent (VK608) and concealed pendent (VK618) sprinklers, utilizing a 3 mm XS bulb rated 135, 155 and 175°F.

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.

USE:

The product covered by this Report is 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 (see Fig. 2).

C O N C L U S I O N

Samples of the products 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.

Report by:  
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the standard in safety

Underwriters  
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File Ex643  
Project 91NK8404  
Project 92NK8181  
Project 92NK4717  
Project 92NK22931  
Project 93NK11446  
Project 94NK6187  
Project 98NK11873  
Project 99NK39499  
Project 01NK33  
Project 03NK08138  
Project 07NK12030  
Project 06NK25809  
**Project 07NK16274**  
**Project 08CA44585**

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REPORT

on

SPRINKLERS, AUTOMATIC AND OPEN

Viking Corporation  
Hastings, MI

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GENERAL

OBJECT:

The object of this investigation was to determine compliance of the Model M extra large orifice upright, pendent and pendent recessed sprinklers with Underwriters Laboratories Inc.'s Standard for Automatic Sprinklers for Fire Protection Service, UL 199, and the National Fire Protection Association's Standard for the Installation of Sprinkler Systems, NFPA 13.

\*

D E S C R I P T I O NPRODUCT COVERED:

Model M extra large orifice pendent and upright sprinklers for a maximum pressure of 175 psig with the following types, styles, orifice sizes, heat responsive elements and temperature ratings.

| <u>Issue</u>   | <u>Description</u>  | <u>Nominal Orifice Size, in.</u> | <u>*Heat Responsive Element Type Size, mm</u> | <u>Temperature Ratings, °F</u> |
|----------------|---------------------|----------------------------------|-----------------------------------------------|--------------------------------|
| M<br>175,      | Pendent             | 0.62                             | 3 mm or 5 mm, extra strong bulb, G5           | 135, 155,<br>200 and 286       |
| M<br>175,      | Pendent<br>Recessed | 0.62                             | 3 mm or 5 mm, extra strong bulb, G5           | 135, 155,<br>200 and 286       |
| M<br>175,<br>+ | Wax-coated          | 0.62                             | 5 mm extra strong bulb, G5                    | 135, 155,<br>200 and 286       |
| M<br>175,      | Upright             | 0.62                             | 3 mm or 5 mm, extra strong bulb, G5           | 135, 155,<br>200 and 286       |

+ - The 286°F Model M wax coated sprinkler uses 200°F wax and is intended for installation where the maximum ambient temperature does not exceed 150°F.

GENERAL CHARACTER:

The Model M extra large orifice pendent and upright sprinkler consists of a brass frame, deflector, compression screw, pip cap, Bellville spring and either a G5, 5 mm, 3 mm or 5 mm extra strong frangible glass bulb in the 135, 155, 175, 200 and 286°F temperature ratings manufactured by E. Job. For the pendent recessed sprinkler, Model E-1 or F-1 escutcheon will be used which is identical to the escutcheon being used with currently Listed Model M (8 mm) glass bulb pendent recessed sprinklers. The sprinkler is available in brass and chrome plated finishes.

USE:

The Model M extra large orifice sprinklers are intended for use with automatic sprinkler equipment as covered by the Standard of the National Fire Protection Association for the Installation of Sprinkler Systems, NFPA 13 and installed in accordance with the manufacturer's installation instructions.

MARKING:

| <u>Location</u>         | <u>Marking</u>                                                                      |
|-------------------------|-------------------------------------------------------------------------------------|
| Wrench Head             | "Viking" + and year of manufacture on opposite; model designation.                  |
| *Deflector -<br>Pendent | "Pendent", "QR", temperature rating °F and °C, control number, UL in circle symbol. |
| *Deflector -<br>Upright | "Upright", "QR", temperature rating °F and °C, control number, UL in circle symbol. |

C O N C L U S I O N

Samples of the product covered by this Report have been found to comply with the requirements 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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