

File Ex643 Project 03NK25940

April 15, 2004

REPORT

on

SPRINKLERS, AUTOMATIC AND OPEN

Viking Corp 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, and the manufacturers installation instructions.

OBJECTIVE:

The objective of this investigation was to determine compliance of the automatic sprinklers with the Standard For Automatic Sprinklers For Fire Protection Service, UL 199, and to determine the suitability of the TY3189 sprinklers when installed, to protect specific interstitial spaces referenced in the manufacturer's installation instructions.

PLAN:

The investigation consisted of conducting a product conformance evaluation and performance testing as described in UL 199 and as described in this Report.

DESCRIPTION

PRODUCT COVERED:

USL VK900 specific application sprinkler intended for installation in combustible concealed interstitial spaces, 4.2 K-factor, glass bulb heat responsive element, upright type, in the $175^{\circ}F$ temperature rating.

> VK901 specific application sprinkler intended for installation in combustible concealed interstitial spaces, 4.2 K-factor, fusible link heat responsive element, upright type, in the 205°F temperature rating

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 light hazard flat concealed interstitial spaces incorporating noncombustible or wood truss construction. The minimum height of the space is 12 in. and the maximum height is 36 in. The maximum coverage area is 144 ${\rm ft}^2.\;$ For solid and composite wood joist construction, the maximum space from the bottom of upper deck to top of ceiling is 54 in. and the minimum depth is 6 in. from the bottom of the upper deck joists to the top of the ceiling joists. The maximum coverage area is 144 ft². The remote area is 1000 ft² for a wet pipe steel pipe system or 1300 ft² for a steel pipe dry pipe system. The sprinkler is for use in accordance with the National Fire Protection Standard for the Installation of Sprinkler Systems, NFPA 13, and the manufacturers installation instructions (see Fig. 1 and 2).

TEST RESULTS

The test methods and results of the distribution tests have been reviewed and found to be in accordance with the requirements in the Standard UL 199. Test results are valid only for the tested sprinklers.

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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