

OCCUPANCY HAZARD CLASSIFICATION

SPRINKLER HAZARDS & OCCUPANCY SERIES BY MEYERFIRE UNIVERSITY | SEPTEMBER 2022

SUMMARY

A fire sprinkler **occupancy hazard classification** is a convenient way to **categorize a fuel load and fire severity for an area**. Much of the remaining portion of fire sprinkler system design depends specifically upon this classification. This module is specific to NFPA 13.

- A sprinkler occupancy hazard classification is different than a building's occupancy, such as a Group E Educational occupancy. A sprinkler occupancy hazard classification is also different than NFPA 101's "hazard of contents".
- NFPA 13 defines three different occupancy hazard classifications with subgroups for non-storage areas:
 - Light Hazard
 - Ordinary Hazard (Group 1)
 - Ordinary Hazard (Group 2)
 - Extra Hazard (Group 1)
 - Extra Hazard (Group 2)
- The definition within the body of the standards are intentionally vague. The Annex portion of NFPA 13 gives typical examples of each occupancy only as guidance to the responsible design professional to assign an occupancy hazard classification.
- The determination of an occupancy hazard classification is perhaps the single most-important decision in the design of a fire sprinkler system.



Light Hazard
(Classroom)



Ordinary Hazard (Group 1)
(Mechanical Room)



Ordinary Hazard (Group 2)
(Mercantile)



Extra Hazard (Group 1)
(Some Dust Hazards)



Extra Hazard (Group 2)
(Paint Spraying)

CODE/STANDARD REFERENCES



NFPA 13 – 2022: 4.3.2, A.4.3.2 Light Hazard

NFPA 13 – 2022: 4.3.3.1, A.4.3.3.1 Ordinary Hazard (Group 1)

NFPA 13 – 2022: 4.3.3.2, A.4.3.3.2 Ordinary Hazard (Group 2)

NFPA 13 – 2022: 4.3.4, A.4.3.4 Extra Hazard (Group 1)

NFPA 13 – 2022: 4.3.5, A.4.3.5 Extra Hazard (Group 2)

NFPA 101 – 2021: 6.2.2 Hazard of Contents

VIDEO LINK

www.meyerfire.com/university/what-is-an-occupancy-hazard-classification

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