

IMPORTANCE OF HAZARD CLASSIFICATIONS

SPRINKLER HAZARDS & OCCUPANCY SERIES BY MEYERFIRE UNIVERSITY | SEPTEMBER 2022

SUMMARY

Fire sprinkler **occupancy hazard classifications** is perhaps the single most important decision for a fire sprinkler system. An occupancy hazard classification is a way to categorize the fuel load and potential fire intensity for an area.

- Commentary within NFPA 13 clearly states that this is the first major decision in design, and can have a “huge impact on the effectiveness of the system during a fire.” Misclassifying a hazard can result in a “compromised” system that’s allows for “unabated horizontal fire spread.”
- The occupancy hazard classifications has a lot of downstream effects. It affects sprinkler spacing, sprinkler densities, allowances, and much more. Occupancy hazard classifications can have major impact on design strategy, system layouts, whether a pump or tank is necessary, and thus cost.
- The occupancy hazard classification effectively determines the design path and the amount of water a fire will need to be effectively suppressed.
- Mis-categorization could result in too little water being available to suppress an actual fire, so of the many decisions involved in sprinkler design, this is perhaps the single most important.



The end-result of a sprinkler system, and whether it is set up for successful suppression or failure, can depend on how we classify the hazard from the beginning.

CODE/STANDARD REFERENCES



NFPA 13 – 2022: A.4.3 Commentary on Classification of Hazard

NFPA 13 – 2022: Table 19.2.3.1.1 Density/Area Table

NFPA 13 – 2022: 4.3.1 Differences Between Sprinkler Occupancy Hazard Classification and others

VIDEO LINK

www.meyerfire.com/university/why-is-a-hazard-classification-important

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