DIFFERENCES BETWEEN NPFA 13, 13R & 13D

STANDARDS OF SPRINKLER DESIGN BY MEYERFIRE UNIVERSITY | NOVEMBER 2021

SUMMARY

Top 5 Differences between NFPA 13, 13R and 13D:

- **Objectives:** The primary purpose for an NFPA 13R and 13D system is for life safety while the primary purpose for an NFPA 13 system is for life safety AND property protection.
- **Limitations for Use:** NFPA 13R and 13D systems are limited on where they are allowed where NFPA 13 does not carry these limitations. Refer to "When Can I Use NFPA 13 (13R or 13D)" training videos for limitations.
- **Allowable Code Reductions:** NFPA 13 systems are more robust and offer a higher level of protection over a NFPA 13R and 13D. Therefore, the building code allows reductions on code requirements, including but not limited to allowable area and height, fire separation, and occupant capacity.
- **Sprinkler Omissions:** NFPA 13R and 13D allows for sprinkler omissions in various portions of the building (refer to IBC Section 903), where NFPA 13 requires complete protection.
- **Hydraulic Calculations:** NFPA 13 requires the greatest design density and area. NFPA 13R allows for calculations up to four sprinklers and NFPA 13D allows for calculations up to two sprinklers. The decreased density and number of sprinklers allows for pipe reduction and required pressure.



Life Safety vs. Property Protection

CODE/STANDARD REFERENCES







NFPA 13 - 2022: A.3.3.41.1(5) Examples of Obstructed Construction: Semi-Mill Construction

NFPA 220 – Standard on Types of Building Construction

IBC - 2021: Section

VIDEO LINK

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