



FPST 1213 Fire and Safety Hazard Recognition

Codes, Standards and Permits

1



National Fire Protection Association



- Our mission today is accomplished by advocating scientifically-based consensus codes and standards, research, and education for fire and related safety issues. NFPA's National Fire Codes are developed by technical committees staffed by over 5,000 volunteers, and are adopted and enforced throughout the world. NFPA functions as a nonprofit membership organization with more than 65,000 members from around the globe, all working together to fulfill the Association's mission.



2



History of the NFPA



- 1895: fire sprinkler installations in Boston
 - Many being made. No standard
 - Inconsistencies in operation
 - A few insurance company reps met to resolve the problems
- March 1896: "Report of Committee on Automatic Sprinkler Protection"
 - eventually became NFPA 13
- November 1896
 - National Fire Protection Association was formally born
 - The committee adopted twelve Articles of the Association. Article No. 1: the organization's formal name.
 - 20 initial members

3



History of the NFPA



- 1903: first international members
- 1904: Membership rules revised. Opened NFPA up to more than just stock fire insurance agencies.
- National Electrical Contractors Association, the American Water Works Association, International Association of Fire Engineers (Fire Chiefs), and the American Institute of Architects, among others, were welcomed in.
- The first individual representing the Federal Government joined, Captain J. S. Sewell of the Corps of Engineers in Washington, DC.

4



History of the NFPA



- 1905: The first actual fire department officers and state fire marshals join NFPA.
- Since then
 - Over a hundred years of diligent work
 - thousands of contributing members
 - over 300 codes and standards developed and research, training, outreach, education and advocacy carried out by the NFPA.

<https://blog.koorsen.com/the-history-of-the-nfpa-and-its-first-fire-safety-codes>

5



OSHA History



- Late 1800's – early 1900's
 - Laws of the day came from English Common Law
 - Fellow servant rule
 - Contributory negligence
 - Assumption of risk
- Pittsburg Survey in 1906
 - The "Death Calendar" - 2 deaths per day
- 1908 Teddy Roosevelt's "The number of wage-earner accidents is appalling"
- Wainwright Law of 1910 - First WC law – New York
 - Originally declared unconstitutional the day after the Triangle Shirtwaist Fire...coincidentally
- The Triangle fire convinced people the law was needed

6



OSHA History



- 1916 - Supreme Court – Declared WC constitutional
 - Many states followed by implementing WC laws
- Insurance Companies provided lower rates to safe companies
- Railroads and Steel were the first two industries to have organized safety programs
- National Safety Council born 1913
- ANSI born 1928
- Walsh-Healy Act – 1936 – government contractors must provide safe conditions
- Construction Safety Act – 1969

7



OSHA History



- States were responsible for safety
 - WC laws
 - They failed to meet their S&H obligations
- The injury/death toll was too high
 - Over 14,000 fatalities annually
 - Over 2.2 million disabling injuries
 - Trend moving in wrong direction
 - Legislation would reverse trend
- Williams-Steiger Occupational Safety and Health Act – 1970 (OSH Act)
 - OSHA born 1971



8



Codes, Standards and Permits



- Certified inspectors enforce the codes and standards that have been legally adopted by the AHJ

9



Codes



- Legal documents that govern activities at various levels of government
 - e.g. 29 CFR 1910
- Prescriptive – Stipulate in detail the types of materials that can be used and how they must be assembled
- Performance – Describe an acceptable level of performance that an assembly, material, or system must meet without specifically stating how the item is assembled
 - AHJ must develop testing and acceptance criteria
 - Significant expertise is required

10



Example



- Performance:
 - An acceptable level of protection against structural failure under extreme load shall be provided.
- Prescriptive:
 - ½" diameter bolts spaced no more than 6 feet on center shall anchor the wood sill of an exterior wall to the foundation.

11



Standards



- A set of principles, protocols, or procedures that is developed by committees through a consensus process

12



ASTM International



- Originally known as the American Society for Testing and Materials
- Develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services

13



Underwriters Laboratory (UL)



- Independent, not-for-profit product-safety testing and certification organization
- Products have been tested for intended use and are certified as safe
- Provides third-party testing and certification for in-service equipment

14



American National Standards Institute (ANSI)



- Private non-profit organization that administers and coordinates the voluntary standardization and conformity assessment system
- Accredits organizations that develop consensus standards
- Includes appeals process
- Ensures that access to standards process is available to anyone directly or materially affected by standard under development
- Many are cross-referenced in NFPA and OSHA
 - Not the "law", OSHA makes them the law

15



Model Codes



- A code that is developed and maintained by a standards organization independent of the jurisdiction responsible for enacting it. A local government can choose to adopt a model building code as their own
- Contain agreed-upon requirements for such areas as fire and life safety or electrical equipment designs and installations
- Developed by organizations such as NFPA or ICC

16



Permits



- A document that grants permission for a property owner to do something
 - Operational permit
 - Regulate activities related to fire and life safety
 - Storage
 - Open burning
 - Construction permit
 - Modifications or new building

17



Local Code Development Process



- P. 56
- Specific processes for code modification and appeals
 - Jurisdictions will have their own specific forms and processes for these

18