

Approaches to Fire Suppression in NARA Facilities: New Buildings and Renovations



Ronald Noll, NCARB, AIA, CSI
Real Property Branch Management Chief
Space and Security Management Branch
National Archives and Records
Administration
301-837-3648; ronald.noll@nara.gov

Our Mission:

NARA ensures, for the Citizen and the Public Servant, for the President and the Congress and the Courts, ready access to essential evidence.

- **To provide adequate and appropriate facilities for the protection of NARA holdings.**
 - **Includes storage, processing and exhibits.**
 - **Includes everything in NARA's textual holdings from archival records (The Charters of Freedom) to temporary records (your income tax returns).**
 - **Includes non-textual holdings from Presidential Gifts of State to jelly bean and macaroni art from the American public.**

NARA Facilities Nationwide

Archives I (Washington, DC) and Archives II (College Park, MD)

2,700,000 SF 2,400,000 CF 2,000 Museum Objects

13 Presidential Libraries & Museums – (Hoover to Clinton)

1,180,000 SF 250,000 CF 600,000 Museum Objects

18 Regional Archives (Laguna Nigel, CA to Waltham, MA)

2,500,000 SF 750,000 CF

22 Federal Record Centers (San Bruno, CA to Suitland, MD)

6,400,000 SF 30,000,000 CF

Total 12,680,000 SF 33,400,000 CF 602,000 MO

NARA Facility Standards

***Architecture and Design Standards for Presidential Libraries
(Final Edition Jan. 2007 Supplement to NARA 1571, Archival
Storage Standards)**

NFPA 13, Installation of Sprinkler Systems

- Quick Response (QR) 165 degrees Fahrenheit sprinkler heads
- Ordinary Hazard Group 2, Storage Occupancy
- 10 ft by 10 ft grid
- Minimum flow density of 0.3 g.p.m. for the most remote 1,500 square foot area.
- Pre-action sprinkler systems must be used in cold storage rooms and other areas subject to freezing.
- 125,000 CF Max. Storage / 300 CF Maximum loss
- NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems
- NFPA 10, Portable Fire Extinguisher
- NFPA 14, Standpipe and Hose Systems
- NFPA 75, Protection of Electronic Computer/Data Processing Equipment
- NFPA 92A, Smoke Control Systems
- NFPA 72, National Fire Alarm Code.

NARA Facility Standards

***NARA 1571, Archival Storage Standards, Feb. 2002**

NFPA 13, Installation of Sprinkler Systems

- Quick Response (QR) 165 degrees Fahrenheit sprinkler heads
- Ordinary Hazard Group 2, Storage Occupancy
- 10 ft by 10 ft grid
- Minimum flow density of 0.3 g.p.m. for the most remote 1,500 square foot area.
- Pre-action sprinkler systems must be used in cold storage rooms and other areas subject to freezing.
- 125,000 CF Max. Storage / 300 CF Maximum loss
- NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems
- NFPA 10, Portable Fire Extinguisher
- NFPA 14, Standpipe and Hose Systems
- NFPA 75, Protection of Electronic Computer/Data Processing Equipment
- NFPA 92A, Smoke Control Systems
- NFPA 72, National Fire Alarm Code.

NARA Facility Standards

***36CFR1228 Subpart K, Appendix B, Sept. 2005
Facility Standards for Records Storage Facilities**

NFPA 13, Installation of Sprinkler Systems

- Quick Response (QR) 165 degrees Fahrenheit sprinkler heads
- Ordinary Hazard Group 2, Storage Occupancy
- 10 ft by 10 ft grid
- Minimum flow density of 0.3 g.p.m. for the most remote 1,500 square foot area.
- Pre-action sprinkler systems must be used in cold storage rooms and other areas subject to freezing.
- 250,000 CF Max. Storage / 300 CF Maximum loss
- NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems
- NFPA 10, Portable Fire Extinguisher
- NFPA 14, Standpipe and Hose Systems
- NFPA 75, Protection of Electronic Computer/Data Processing Equipment
- NFPA 92A, Smoke Control Systems
- NFPA 72, National Fire Alarm Code.

NARA PROJECTS

Dwight D. Eisenhower Museum, Abilene, KS

(c.1962)

NFPA 13 Wet Pipe Sprinklers

Per NARA Presidential Library Standards



NARA PROJECTS

Ronald Reagan Library, Simi Valley, CA

(c.1991)

NFPA 13 Pre-Action Sprinkler Upgrade

Per NARA Presidential Library Standards



NARA PROJECTS

Lyndon B. Johnson Library, Austin, TX

(c.1971)

NFPA 13 Wet Pipe Sprinkler Upgrade

Per NARA Presidential Library Standards



NARA PROJECTS

Riverside Federal Record Center, Perris, CA

(c.2004)

NFPA 13 Wet Pipe Sprinkler

Per NARA 36CFR 1228 Subpart K, Apx. B



NARA PROJECTS

Ft. Worth Federal Record Center, Ft. Worth, TX

(c.2007)

NFPA 13 Wet Pipe Sprinkler

Per NARA 36CFR 1228 Subpart K, Apx. B

Electronic Records Storage : FM200



NARA PROJECTS

Atlanta Federal Record Center, Atlanta, GA

(c.2004)

NFPA 13 Wet Pipe Sprinkler

Per NARA 36CFR 1228 Subpart K, Apx. B



NARA CHALLENGES

Examples:

