Rev. 1, 03/22/2023

Attachment 1, Adopted Editions of NFPA Fire Protection Codes, Standards, and Recommended Practices

Attachment 1

Adopted Editions of NFPA Fire Protection Codes, Standards, and Recommended Practices

LANL adoption of NFPA codes and standards, FM Global Datasheets (for project-specific hazards), and other national consensus standards is nominally based on the adopted editions of the IBC, IFC, and NFPA 1 and 101. However, adoption or use newer editions of standards than those listed in IBC Ch. 35, or NFPA 1 and 101 Ch. 2, may be required by the LANL Fire Protection Office (FP) for any given project or sitewide. Thus, for greater consistency, the edition to be used for <u>projects initiated after the date of</u> this Attachment¹ shall be per the table below.

Table D40A1. LANL-Adopted Editions of Commonly Used NFPA Codes and Standards²

The following listing of required codes and standards are the oldest editions permitted. This list is not comprehensive; additional codes may be applicable depending on project scope.³ Should a project-specific requirement conflict due to differences from these, bring the issue to the Fire Chapter POC for resolution.

* Indicates the NFPA document matches edition referenced by the IBC or IFC.

NFPA Document	Code, Standard, or Recommended Practice	Edition
NFPA 1	Fire Code	2021 ⁴
NFPA 3	Standard for Commissioning of Fire Protection and Life Safety Systems	2021
NFPA 4	Standard for Integrated Fire Protection and Life Safety System Testing	2021*
NFPA 10	Standard for Portable Fire Extinguishers	2018*
NFPA 13	Standard for the Installation of Sprinkler Systems	2019*
NFPA 14	Standard for the Installation of Standpipe and Hose Systems	2019*
NFPA 20	Standard for the Installation of Stationary Pumps for Fire Protection	2019*
NFPA 22	Standard for Water Tanks for Private Fire Protection	2018
NFPA 24	Standard for the Installation of Private Fire Service Mains and Their Appurtenances	2019
NFPA 30	Flammable and Combustible Liquids Code	2021*
NFPA 45	Standard on Fire Protection for Laboratories Using Chemicals	2019
NFPA 54	National Fuel Gas Code	2021 ⁵
NFPA 55	Compressed Gases and Cryogenic Fluids Code	2020
NFPA 58	Liquified Petroleum Gas Code	20205*
NFPA 70	National Electrical Code – see ESM Chapter <u>16</u> , IBC-GEN Att. A	
NFPA 72	National Fire Alarm and Signaling Code	2019*
NFPA 75	Standard for the Fire Protection of Information Technology Equipment	2020
NFPA 80	Standard for Fire Doors and Other Opening Protectives	2019*
NFPA 80A	Recommended Practice for Protection of Buildings from Exterior Fire Exposures	2022
NFPA 88A	Standard for Parking Structures	2023
NFPA 90A	Standard for the Installation of Air-Conditioning and Ventilating Systems	2021

¹ See ESM Ch. 1 Section Z10 General Requirements Subsection 7.0 Code of Record on underway concept.

² Listing portion of this document may be revised by approval of the Fire Chapter POC and Standards Manager only to maintain alignment with the rules of adoption.

³ For standards not listed herein, use the edition referenced in the IBC/IFC, NFPA 1 and 101, or originating standard.

⁴ NM only follows NFPA 101 which is invoked by the IFC, but LANL follows NFPA 1 as well.

⁵ The 2021 editions of the UMC and UPC reference NFPA 54-2018 and NFPA 58-2017, but NFPA 1-2021 references NFPA 54-2021, and both NFPA 1-2021 and IBC-2021 reference NFPA 58-2020. Per VAR-10545 adopting the older editions, "Guidance: Newer editions [of NFPA 54 and NFPA 58] should be used if doing so will not conflict with direction in (intent of) the UMC or UPC." Where there is a conflict, these earlier editions may be used unless the IBC, IFC, or NFPA 1 also reference NFPA 54 or NFPA 58 for a similar requirement. In short, follow table-listed editions and bring problematic conflicts to Pressure Safety and Fire POC attention.

Section D40 Fire Protection

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NFPA Document	Code, Standard, or Recommended Practice	Edition
NFPA 91	Standard for Exhaust Systems for the Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids	2020
NFPA 101	Life Safety Code	2021*
NFPA 110	Standard for Emergency and Standby Power Systems	2019*
NFPA 111	Standard on Stored Electrical Energy Emergency and Standby Power Systems	2019*
NFPA 220	Standard on Types of Building Construction	2021
NFPA 221	Standard for High Challenge Fire Walls, Fire Walls, and Fire Barriers	2021*
NFPA 400	Hazardous Materials Code	2019
NFPA 484	Standard for Combustible Metals	2019*
NFPA 495	Explosive Materials Code	2018
NFPA 652	Standards on the Fundamentals of Combustible Dust	2019*
NFPA 654	Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids	2020*
NFPA 801	Standard for Fire Protection for Facilities Handling Radioactive Materials	2020
NFPA 855	Standard for the Installation of Stationary Energy Storage Systems	2020
NFPA 1144	Standard for Reducing Structure Ignition Hazards from Wildland Fire	2018
NFPA 2001	Standard on Clean Agent Fire Extinguishing Systems	2018*
NFPA 5000	Building Construction and Safety Code	Do Not Use

The edition of any NFPA code or standard for a project code of record may deviate from the table above for the following reasons:⁶

- 1. Newer editions <u>may be used</u> at the discretion of the engineer of record and with written approval of FP. Supporting rationale must provide justification.
- 2. FP <u>may require</u> a project to use newer standards for emerging issues and hazards, increased design flexibility, or other specific reason.
- 3. Newer editions <u>shall be used</u> when required by another initiating event, e.g., adoption of a newer edition of the IBC, DOE order or standards, or New Mexico Administrative Code.
- 4. COR: The original code of record may be followed when permitted by the governing codes and standards, the Fire Marshal, NFPA 101 Ch. 43, and the LANL Existing Building Code (LEBC; ESM Chapter 16, IBC-GEN Att. B).

Approval for deviations from the adopted edition of the NFPA codes and standards listed above shall be requested from the Fire Protection Office⁷. The approval will be documented by memo sent to the project engineer and project manager. The different edition shall be specifically noted in the project requirements and code analysis documents, including referencing the approval memo.

ITM: <u>Periodic</u> inspection, testing, and maintenance requirements from the applicable codes and standards (e.g., NFPA 72 and NFPA 25) are adopted via the LANL MSS Operations and Maintenance (O&M) <u>Criterion</u> 500 and 700 series. Design and new work acceptance is per the edition above.

⁶ The direction in this attachment supersedes any potentially conflicting direction in ESM Chapter 1 Z10 (e.g., to use IBC-listed or latest NFPA edition).

⁷ Industry norm is to follow editions of standards referenced by the adopted code because changes are generally coordinated and harmonized to some degree. (E.g., a requirement removed from NFPA 72 is added to NFPA 1). By extension, using standards not referenced or invoked by the codes of an edition within the same timeframe should be acceptable in most cases. While most changes edition-to-edition is generally relatively minor, the adoption of latest can incur an added cost due to learning curve of using the newer version.