



Cleanrooms

Fire Sprinkler and Alarm Systems

Design, Installation, and Plan Submittal Requirements

Effective Date: January 1, 2023

1.0 GENERAL

- 1.1 All Cleanrooms installed in this jurisdiction shall be in accordance with the 2022 edition of NFPA 318, "Protection of Semiconductor Fabrication Facilities" and 2022 California Fire Code, Chapter 27 "Semiconductor Fabrication Facilities" as modified herein.
- 1.2 The most stringent requirements shall take precedence should there be a conflict amongst the California Building Code, California Fire Code, and NFPA 318.
- 1.3 This handout supplements the San Jose Fire Department's (SJFD) Policy "**Fire Sprinkler Systems Design, Installation, & Plan Submittal Requirements**" (<AS> systems) and "**Fire Alarm Systems Permit Application, Plan Submittal, Design Installation, & Inspection Requirements**" (<FA> systems). See <AS> systems and <FA> systems for submittal requirements.
- 1.4 Definitions of Clean Zone & Cleanroom per NFPA 318, 2022:
- 3.3.2 Clean Zone. A defined space in which the concentration of airborne particles is controlled to specified limits.
- 3.3.3 Cleanroom. A room in which the concentration of airborne particles is controlled to specified limits, including areas below the raised floor and above the ceiling grid if these areas are part of the air path and within the rated construction.

2.0 FIRE SPRINKLER SYSTEM DESIGN

- 2.1 Design of Clean Zone & Cleanroom shall comply with NFPA 318, 2022 sections 11.1.4 Building Automatic Sprinkler Systems and 11.2 Protection of Specific Facility Elements.

3.0 FIRE ALARM SYSTEM

- 3.1 A manual fire alarm system shall be installed throughout buildings containing Group H, Division 5 Occupancies. Activation of the alarm system shall sound a local alarm with the alarm signal sent to the emergency control station. Manual fire alarm systems shall be designed and installed in accordance with the appropriate standard and guides adopted in Chapter 80 of the California Fire Code, Article 760 of the California Electrical Code, and NFPA 72 of the National Fire Alarm Code. Should a conflict arise between codes, then the most stringent requirement shall apply.
- 3.2 The fire extinguishing system shall be electronically monitored by the fire alarm system and in accordance with CFC, NFPA 72, the National Fire Alarm Code, and NFPA 318, 2022 section 11.1.2 Alarm and Communication Systems and 11.1.3 Detection Systems.

4.0 INSPECTIONS

4.1 See <AS> systems and <FA> systems for inspection requirements.

5.0 DOCUMENT REVISIONS

5.1 This document is subject to revisions. For general information and to verify that you have the most current document, see SJFD development website or call 408-535-7750, and request the current version date.