



- Fire at MGM Grand Hotel, Las Vegas, 1980
- Fire contained to the Casino level (ground floor)
- 650 Injuries
- 85 Fatalities total Where?
  61 Fatalities on the 16<sup>th</sup> Floor or
- above
- 18 in the Casino
- <u>Modern smoke control systems</u> (if functioning) would have prevented most of these fatalities.
- Catalyst for improved Building Codes & Fire Codes

n Controle, Inc. — Building Code, Smake Control, UL Bé



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### Purpose

- Awareness Requirements for testing Smoke Control Systems.
- Not giving you step-by-step instructionsGiving you information

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# Fire Code - Remember - IFC adopted as State Fire Code · Legal requirement for all buildings • "2012 IFC Section 909 – Smoke Control Systems 909.20 Maintenance. Smoke control systems shall be maintained to ensure to a reasonable degree that the system is capable of controlling smoke for the duration required. The system shall be maintained in accordance with the manufacturer's instructions and Sections 909.20.1 through 909.20.5. 909.20.1 Schedule. <u>A routine maintenance and operational testing program shall be</u> WORKEN SUFFICIENCE, A require transmitterative and operational testing program shall be initiated immediately after the smoke control system has passed the acceptance tests. A written schedule for routine maintenance and operational testing shall be established. 909.202 Written record: A written record of smoke control system testing and maintenance shall be maintained on the promises. The written record shall include the date of the maintenance, identification of the servicing personnel and notification of any unsatisfactory condition and the corrective action taken, including parts replaced." Johnson Controls

#### Fire Code

- · 2012 IFC Section 909 Smoke Control Systems (continued) '909.20.3 Testing. Operational testing of the smoke control system shall <u>include</u> equipment such as initiating devices, fans, dampers, controls, doors and windows
  - 909.20.4 Dedicated smoke control systems. <u>Dedicated</u> smoke control systems shall be operated for each control sequence <u>semiannually</u>. The system shall also be tested under <u>standby power</u> conditions.
  - 909.20.5 Nondedicated smoke control systems. <u>Nondedicated</u> smoke control systems shall be operated for each control sequence <u>annually</u>. The system shall also be tested under <u>standby power</u> conditions.<sup>8</sup>

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## Joint Commission, CMS, NFPA Standards · Joint Commission & CMS - previously discussed · Both have adopted life safety standards: · NFPA Standard 99 - Health Care Facilities Code NFPA Standard 101 – Life Safety Code <u>NFPA Standard 92</u> – Standard for Smoke Control Systems (By multiple references from NFPA 101) 2012 version of NFPA-101 (and therefore NFPA-92) was adopted by Joint Commission & CMS in 2016 · Prior adoption was 2005 version Johnson 🤎

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#### Summary

- For certain occupancy types, Smoke Control and a UL864 listed control system are required by law (by building code).
  Smoke Control Systems are intended to provide a survivable environment in the first minutes of a fire.
- Fire Code and various NFPA Standards require periodic testing of smoke control systems.
  - Building owner is responsible for execution of tests and for maintaining documentation of results.
- Johnson Controls can perform this periodic testing as part of a Planned Service Agreement (PSA).

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