

# 40<sup>th</sup> Annual Minnesota Health Care Engineers Seminar



## 2015 MINNESOTA STATE FIRE CODE: UPDATES, CHANGES AND HOW IT AFFECTS YOU

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DEPUTY STATE FIRE MARSHAL



# Healthcare uses the Life Safety Code so why should I care?



- State law makes compliance mandatory
- All healthcare facilities shall comply as a condition of MDH Licensure Rules
- Additions, changes or renovations require compliance as a condition of permits
- Compliance with the State Fire Code (MSFC) can cause conflict with CMS and the LSC



# Why is there a conflict?



- Model code year of creation/publication (2000 LSC likely started in 1996/1997)
- Referenced Codes and Standards
- Full compliance with state codes brings healthcare facilities out of compliance with CMS Regulations, but...
- Full compliance with CMS Regulations causes prohibited conditions with state codes



# Why is there a conflict?



- Fire sprinklers in elevators
- Handrails
- Smoke Detection vs. Fire Detection
- Regional factors



# Referenced Codes and Standards

- 2000 Life Safety Code
  - NFPA 10, 1998 Ed.
  - NFPA 13, 1999 Ed.
  - NFPA 25, 1998 Ed.
  - NFPA 72, 1999 Ed.
  - NFPA 99, 1999 Ed.
  - NFPA 101, 2000 Ed.
  - NFPA 110, 2000 Ed.

- 2007 MN State Fire Code
  - NFPA 10, 2002 Ed.
  - NFPA 13, 2010 Ed.
  - NFPA 25, 2008 Ed.
  - NFPA 72, 2010 Ed.
  - NFPA 99, 2002 Ed.
  - NFPA 101, 2003 Ed.
  - NFPA 110, 2002 Ed.

**\*Not included are ICC Codes  
(Mechanical, Plumbing, Etc.)**



# Referenced Codes and Standards

- 2012 Life Safety Code
  - NFPA 10, 2010 Ed.
  - NFPA 13, 2010 Ed.
  - NFPA 25, 2011 Ed.
  - NFPA 72, 2010 Ed.
  - NFPA 99, 2012 Ed.
  - NFPA 101, 2012 Ed.
  - NFPA 110, 2010 Ed.

- 2015 MN State Fire Code
  - NFPA 10, 2010 Ed.
  - NFPA 13, 2010 Ed.
  - NFPA 25, 2011 Ed.
  - NFPA 72, 2010 Ed.
  - NFPA 99, 2010 Ed.
  - NFPA 101, 2012 Ed.
  - NFPA 110, 2010 Ed.

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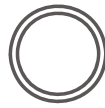
# How will the adoption of new codes help?



- Common referenced codes and standards
  - Help facilities
  - Help contractors
  - Help architects and design engineers
  - Help local code officials



# Adoption Dates

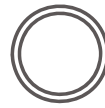


- 2015 MSBC: June 2, 2015
- 2015 MSFC:
  - Publish for comment: Oct 19, 2015
  - Comment close date: Nov 20, 2015
  - Barring issues, adoption to occur 6-8 weeks after closing date





# Ambulatory Surgical Centers (ASC)



- Group B (Office) occupancies
- 2007 MSFC defined these as “Clinic-Outpatient” and Primary Care-type services as “Professional Services”
- This classification and definition only further confused Authorities Having Jurisdiction (AHJ’s) and Design Professionals



# 2007 MSFC Outpatient Clinic Definition



A building or part thereof ...surgical treatment requiring general anesthesia or other treatment ...that would render them incapable of unassisted self-preservation under emergency conditions. This would include outpatient surgical centers and kidney dialysis units, but does not include doctors' and dentists' offices or clinics for the practice of medicine or the delivery of primary care.



# 2015 MSFC Ambulatory Care Facilities



- Still a Group B Occupancy
- ASC's are now specifically defined as an "Ambulatory Care Facility"
- Doctor and dental offices now defined as "Clinic-Outpatient"



# 2015 MSFC Definitions



- Ambulatory Care Facility:...medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis...who are rendered incapable of self-preservation
- Clinic-Outpatient:...medical care on a less than 24-hour basis to persons who are not rendered incapable of self-preservation



# Interior Finish



- Under the 2007 MSFC, newly introduced upholstered furniture were required to meet NFPA 260/261 (cigarette burn test), except...
- Upholstered furniture belonging to patients in sleeping rooms if a smoke alarm is present, or...
- When the room or space is protected by a fire sprinkler system



# Interior Finish



- Under the 2015 MSFC, newly introduced upholstered furniture were required to meet NFPA 260/261 (cigarette burn test), except...
- Upholstered furniture belonging to patients in sleeping rooms if a smoke alarm is present, ~~or...~~
- ~~When the room or space is protected by a fire sprinkler system~~



# Why did the Fire Sprinkler Exception go away?

- 2009 International Fire Code Commentary:
  - ...NFPA 13 exception deleted because the sprinklers have no effect on controlling “cold” smoldering fires.
  - This potential ignition source doesn't exist in MN nor does NFPA 261 address other ignition sources



# Interior Finish



- Solution 1:
  - If possible, 2015 MSFC will be amended to include fire sprinkler exception
- Solution 2:
  - If not possible, SFMD Code Interpretation allowing fire sprinkler exception based on specific requirements of NFPA 261





# Interior Finish



- Combustible decorations amended to reflect the requirements of the 2012 Life Safety Code



# Fire Sprinkler System



- Ambulatory Care Facilities (ACF)
  - 4 or more patients rendered incapable of self-preservation, or
  - 1 or more patients incapable of self-preservation not located on level of exit discharge
- In buildings where the ACF is located on levels other than the level of exit discharge, a fire sprinkler system shall be installed on all floors between the ACF and exit discharge



# 2015 MSFC Fire Alarm Requirements



Approved automatic fire detectors shall be installed in laundry and soiled linen rooms, boiler and furnace rooms, mechanical and electrical rooms, shops, laboratories, kitchens, locker rooms, janitors' closets, trash-collection rooms, storage rooms, lounges, gift shops, and similar areas.



# Automatic Fire Detector



- **FIRE DETECTOR, AUTOMATIC.** A device designed to detect the presence of a fire signature and to initiate action.
- Fire Sprinkler System, monitored for automatic fire alarm activation, is an Automatic Fire Detector!



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# 2015 MSFC Fire Alarm Requirements



Hospitals, nursing homes (both intermediate care and skilled nursing facilities), board and care homes, and detoxification facilities shall be provided with smoke detection throughout the corridor and areas open to the corridors, other than nurses' stations.



# 2015 MSFC Fire Alarm Requirements



- Exceptions:

1. Corridor smoke detection shall not be required where the sleeping room smoke detectors required in Section 907.2.6.3 are connected to an approved fire alarm system and activate a general evacuation signal.

- Similar language in 2012 LSC for Nursing Homes



# 2015 MSFC Special Locking Arrangements

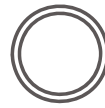


- Minor clarifying language changes
  - The doors unlock upon loss of power controlling the lock or locking mechanism
- A building occupant shall not be required to pass through more than one door equipped with a special locking arrangement





# 2015 MSFC Special Locking Arrangements



- Doors unlock upon signal from fire command center, nurses station or other approved location. Removed “constantly attended location”
- 2015 MSFC no longer requires a “dead-man switch” from within the locked unit, but...
- 2012 LSC Chapter 18/19 still requires it
- Language requiring manual relocking is also absent



# 2015 MSFC Compressed Medical Gas Use and Storage



- Section 5306.2 Interior Supply Locations:
  - ...Rooms or areas where medical gases are stored or used in quantities exceeding the MAQ shall be in accordance with High-Hazard Group H occupancies
- Maximum Allowable Quantity (MAQ):
  - 3,000 cubic feet of gas if fire sprinkler protected
  - Unprotected Group H spaces not permitted by State Building Code within Group I-2 Occupancies



# Compressed Gas Cylinder Sizes



- E-Cylinder
  - 25 cubic feet of gas
  - 120 cylinders
- H-Cylinder
  - 250 cubic feet of gas
  - 12 cylinders



# 2015 MSFC Compressed Medical Gas Use and Storage Issues



- 2015 MSFC/MSBC recognizes these spaces as a Group H-3 if the MAQ is exceeded
- 2015 MSBC only permits a Group H-3 in a Group I-2 if fire sprinkler protected



# 2015 MSFC Compressed Medical Gas Use and Storage Issues



- Both LSC and NFPA 99 recognize these spaces as hazardous areas (1-hour protection) without need for separate classifications
- LSC (00) 6.1.14.2: ...in mixed occupancies,...shall comply with most restrictive life safety requirements (High Hazard)
- S&C-11-05-LSC Revised 02.18.2011



# 2015 MSFC Compressed Medical Gas Use and Storage Issues



- Plans potentially are the biggest issue:
  - CMS inspects buildings to the plans vs. letting the building tell the inspector what the building is
  - If the plans call the room a Hazardous Occupancy, CMS could state that a hazardous occupancy exists within a Institutional Occupancy
  - Plans will need to clearly differentiate between state and federal requirements



# 2015 MSFC Compressed Medical Gas Use and Storage Issues

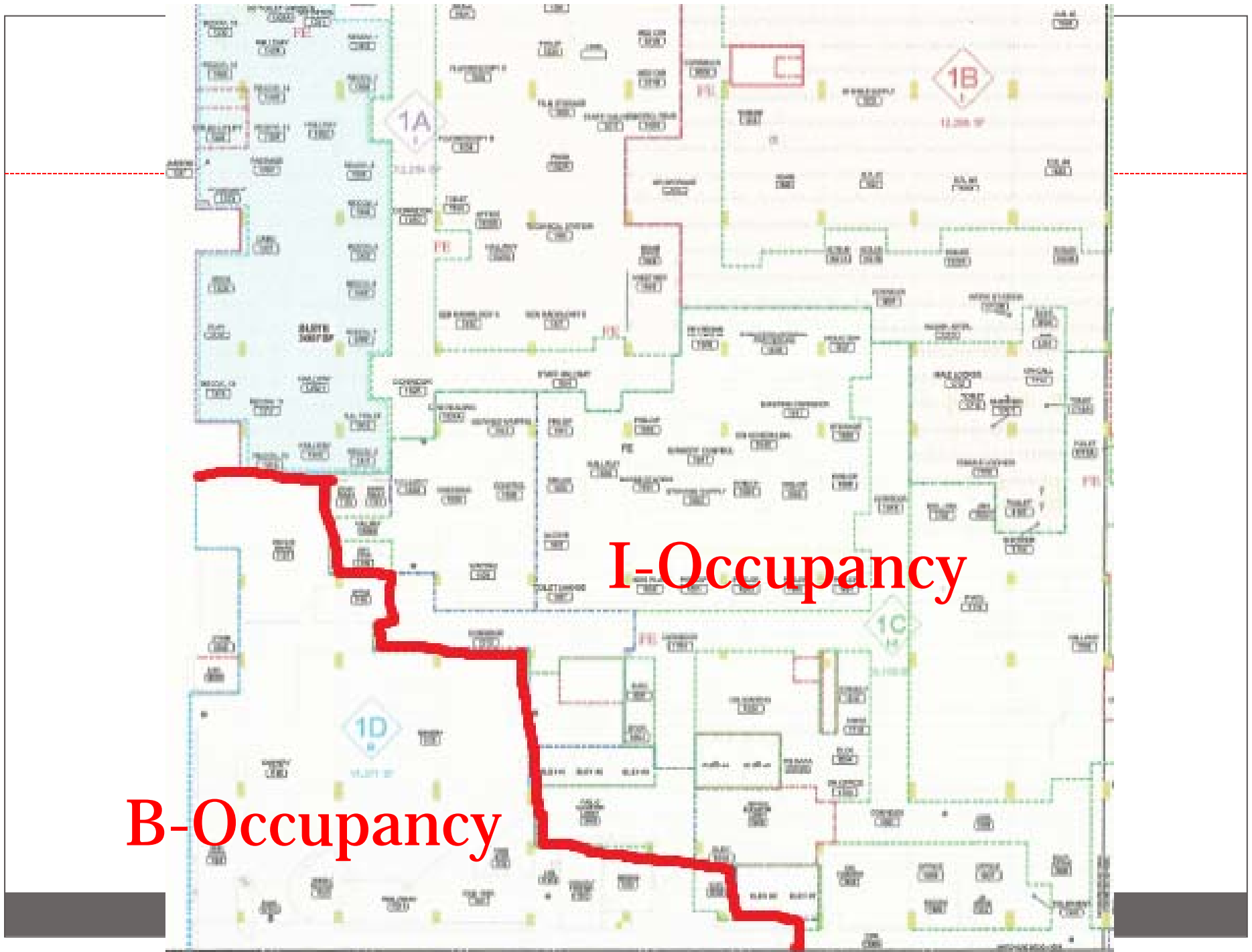


- Plans issues are one of semantics
- Instead of identifying the room as a Hazardous Occupancy, you could add a footnote to the code plan if allowed by the approving agency

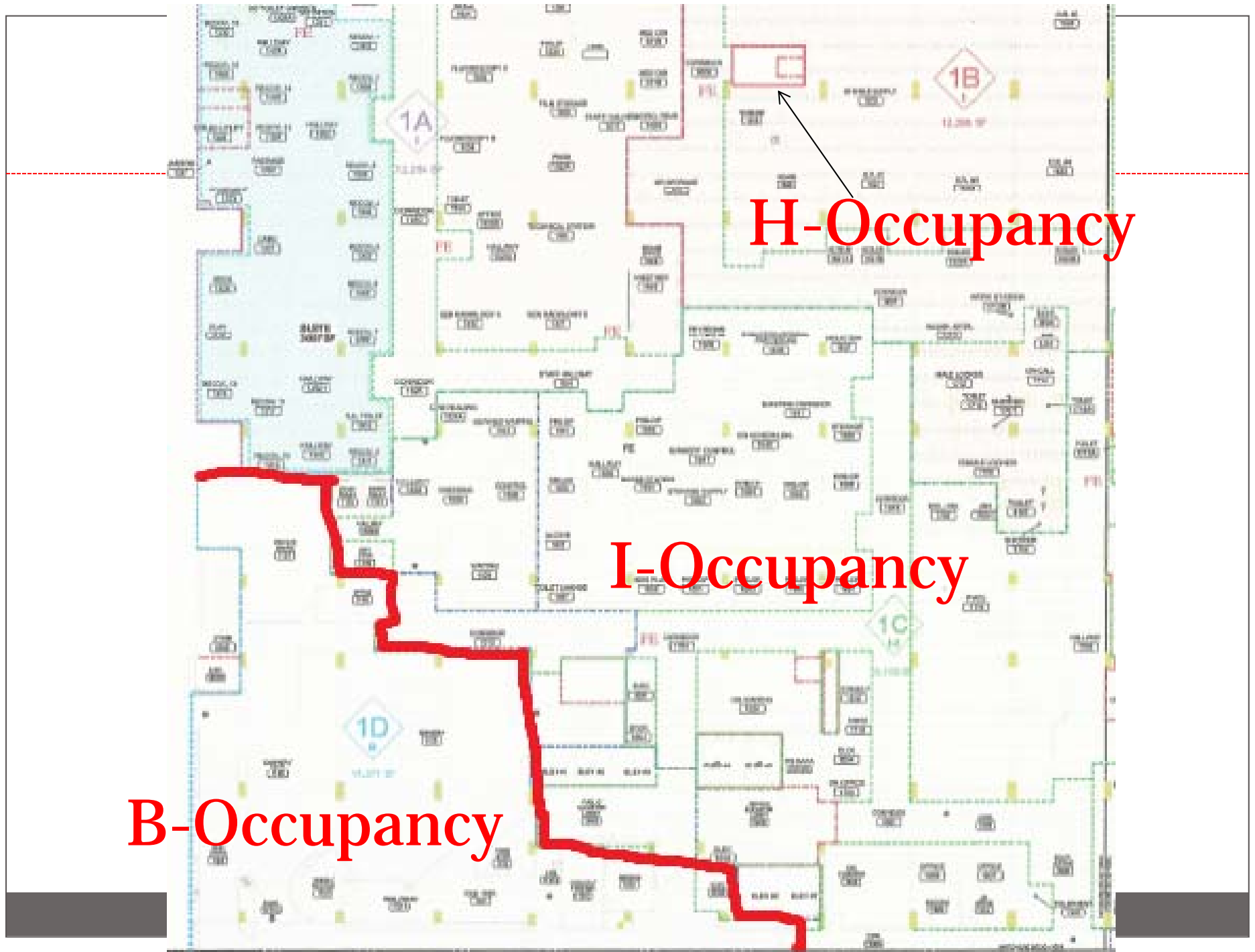


**B-Occupancy**

**I-Occupancy**



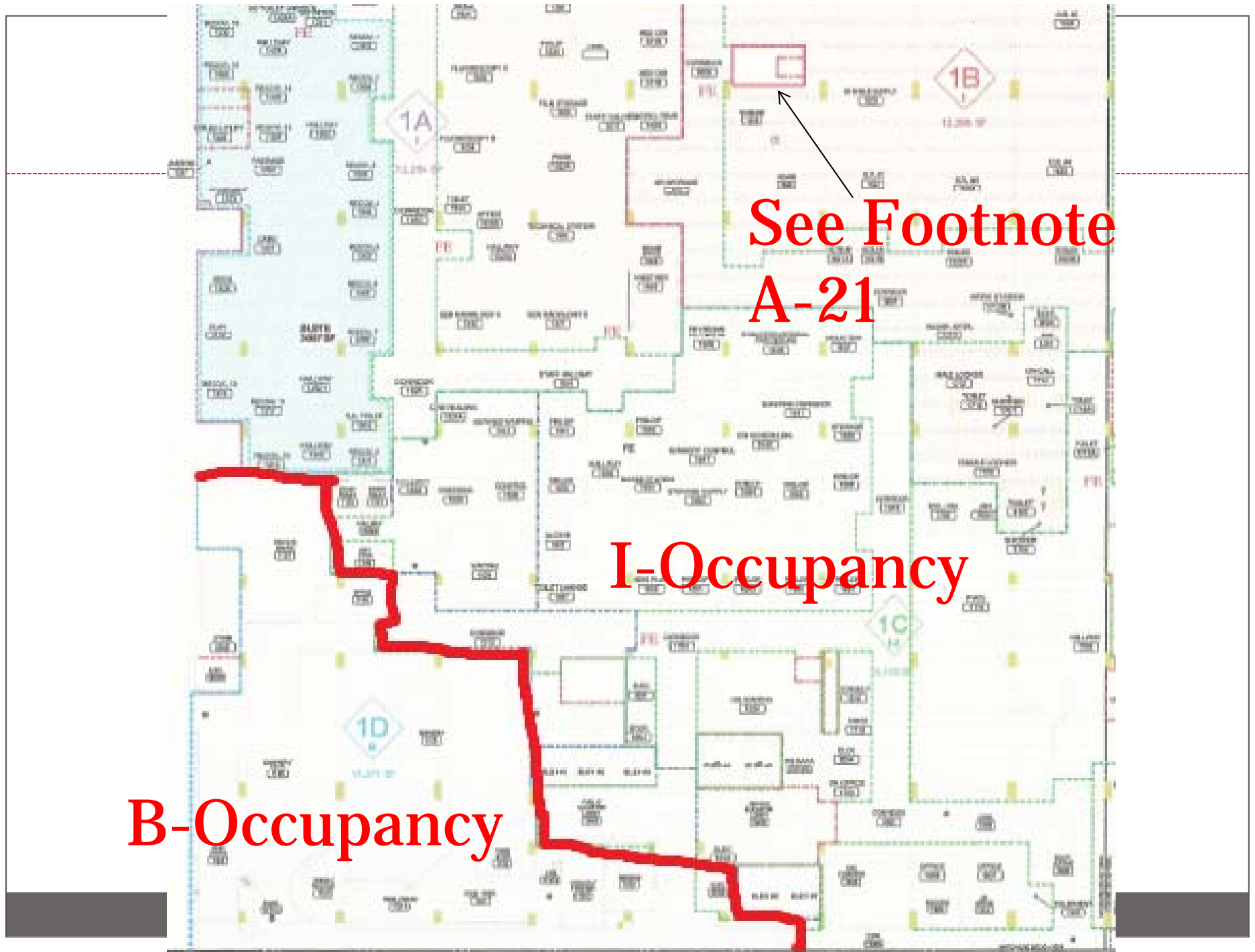




H-Occupancy

I-Occupancy

B-Occupancy



See Footnote  
A-21

I-Occupancy

B-Occupancy

# 2015 MSFC Compressed Medical Gas Use and Storage Issues



- Footnote A-21:
  - Meets LSC (2000) Section 18.3.2.4.
  - Meets 2015 MSFC/MSBC Section 5306.2.



# Questions?

