



Minnesota Health Care Engineers Association

Life Safety Code Potpourri

Thursday, September 17, 2015

Presenter: Bob Dehler, P.E., Engineering Program Manager, Minnesota Department of Health

Minnesota Department of Health

Engineering Services Section

- Bob Dehler, P.E.

Today's Topics

- FGI Guidelines
- Engineering Services Project Submittal Process
- Quick Response Sprinklers
- Smoke Barriers
- Waivers Available for Neighborhood Kitchens
- Life Safety Plan Requirements

FGI Guidelines

- Proposing to adopt FGI Guidelines via Statute for hospitals
- Will propose to rescind hospital rules 4640 & 4645
- Short legislative session, will be tough
- If the proposal does not make it this year, it will be proposed next year

Engineering Services Project Submittal Process

What do we need?

- Complete plan submittal form
- Plan review fee
- Full set of signed pdf plan
 - Fully reviewed by submitter prior
- Full set of signed hard copies of plan
- health.healthcareengineers@state.mn.us
- Roxanne Beyer – roxanne.beyer@state.mn.us

651 201-4229

Engineering Services Project Submittal Process

Plan submittal form

- Ensure construction type and cost included
- Cross reference project cost with fee schedule

Engineering Services Project Submittal Process

Plan review fee

- Plan review fee correlated to construction cost
- Be very careful to get accurate cost and ensure it is in the range in the statute
- Sometimes revised submittals are sent in because cost is not in line with fee

Engineering Services Project Submittal Process

PDF plan

- Full set of pdf plans
 - Can submit: CD, thumb drive, email
 - Email to health.healthcareengineers@state.mn.us
- Have architect/engineer review set before submission to MDH. Many times sheet(s) not properly certified by licensed engineer or architect. Master plumbers and master electricians may not submit plans to MDH

Engineering Services Project Submittal Process

Hard copy of plans

- Architect to review every sheet for proper certification

Engineering Services Project Submittal Process

- Failure to provide any one item will delay your project from being completely entered in our system
- Any time construction activity takes place in a healthcare facility, plans should be submitted for review and approval
- The main exception is interior finish replacement
- Remember, we review plans to help the facility. Not be a pain to the facility or engineer/architect
- Please do not send MDH all drawing changes throughout construction. Only changes that affect licensure and certification requirements. If a change is sent to MDH, additional plan review fees may be required

Quick Response Sprinklers

- New and existing healthcare occupancies must meet the 2000 edition of the LSC, chapters 18.3.5/19.3.5. They reference chapter 9.7 that indicates quick response sprinkler heads are required in smoke compartments that contain sleeping rooms.
- Section 9.7 also references NFPA 13 (1999 edition) section 5-3.1.5.2 states if quick response sprinklers are used in a compartment, then all of the sprinklers must be quick response
- We see the problem with small remodels that relocate smoke barriers
- If your existing facility has only standard response heads in a sleeping smoke compartment, you could be okay until you renovate the area

Quick Response Sprinklers

- Why use quick response (QR) heads
 - More 'credit' on an FSES for all QR heads in smoke compartment
 - Activation temperature faster than standard response
 - QR heads generally have smaller bulbs than standard response
 - Used in light hazard occupancies (healthcare)
 - Discharge water higher up on ceiling. Cools ceiling, prevents flashover and increases odds of survival

Smoke Barriers in Healthcare

Smoke barrier

- Wall that extends from outside wall to outside wall and floor to floor/roof
- 18.3.7.3 requires smoke barriers in healthcare to have a 1-hour rating and doors must be rated for 20 minutes or be constructed of 1³/₄" solid wood
- These barriers shall be continuous through all concealed spaces (major problem in wood frame buildings)
- Exception to 8.3.2 allows the smoke barrier to end at the bottom of an interstitial space if that barrier is rated
- CMS is looking at this requirement and have found non-compliant smoke barriers to roof

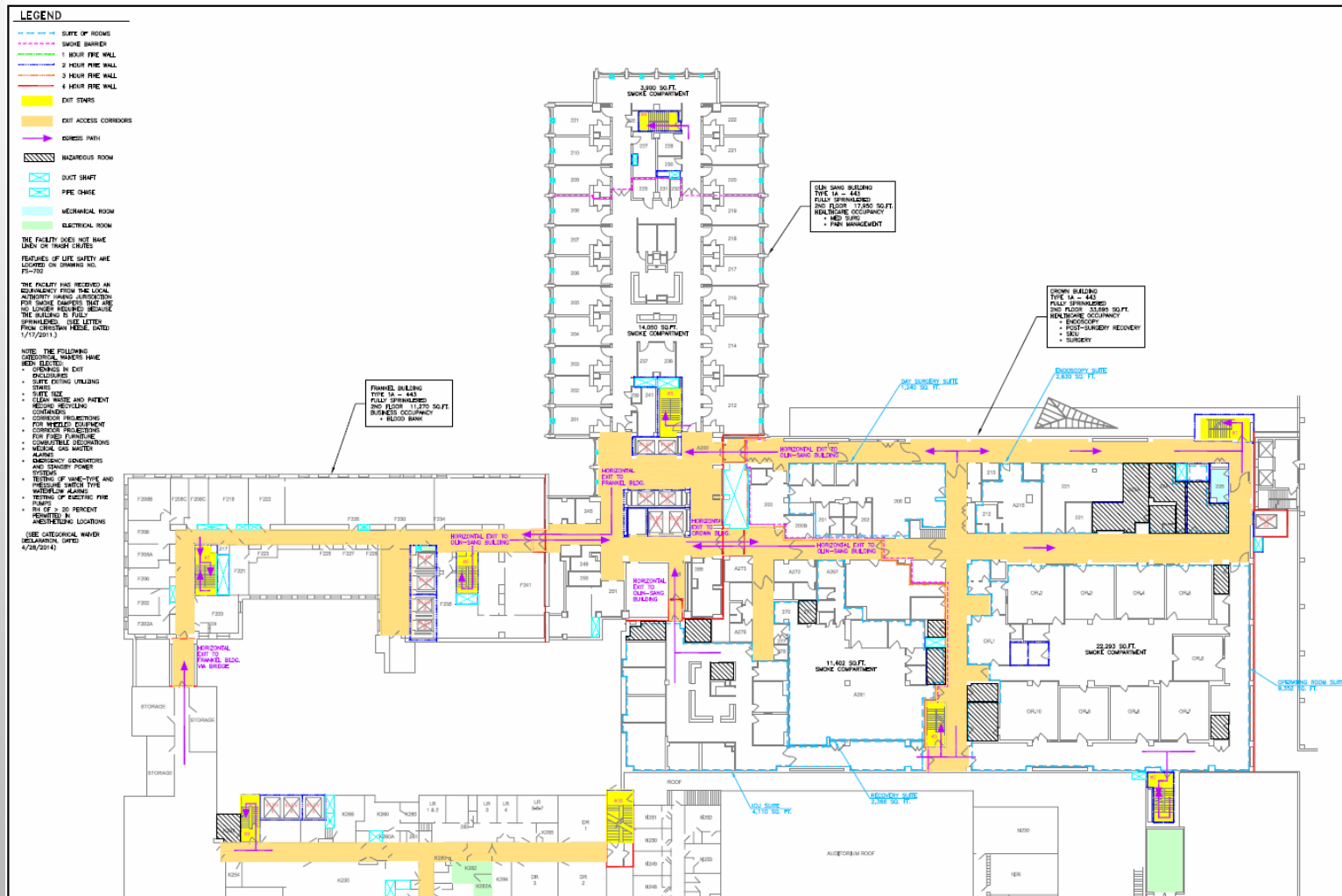
Neighborhood Kitchen Waivers (state)

- 2000 LSC allows limited cooking outside the main dietary kitchen
- NH licensure rules basically require cooking to take place in a dietary kitchen and the equipment is NSF listed
- New waiver available from CMS to allow compliance with the 2012 LSC, 18/19.3.2.5
- Main changes to state waiver include:
 - Will allow up to 30 residents in a neighborhood
 - Now have two waivers, neighborhoods with limited cooking without producing grease laden vapors and neighborhoods that have cooking with a range hood with 300 or 300A extinguishment system

Life Safety Plan Requirements

- Building construction year, construction type and occupancy
- Occupancy separations
- Areas of building sprinklered
- Locations of all hazardous areas
- Suite boundaries with size (sf) and exiting
- Locations, size and exiting of designated smoke compartments
- Locations of chutes and shafts (ratings)
- Locations and direction of any horizontal exits
- Locations of all exits
- Unique or confusing life safety elements
- Other required elements from AHJ's (approved equivalencies for the Joint Commission)

Example of Life Safety Plan



Thank you for
having me here
today

QUESTIONS

