

Life Safety Code Surveys, Waivers, and Sprinklers

Illinois Nursing Home Administrator's Association
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The Life Safety Survey

- Every nursing home receiving Medicare and/or Medicaid reimbursement must undergo an unannounced annual survey
- Annual survey done between 9-15 month window
- State survey personnel assess compliance with federal quality of care and fire safety standards
- Surveyors must pass a self-paced computer based course and five days of classroom instruction
- Surveyors report the scope and severity deficiencies in CMS's Online Survey Certification and Reporting system database

The Life Safety Code

- Life Safety Code 101 (2000 Ed.)
- Promulgated by the National Fire Protection Association (NFPA)
- NFPA is not a government agency
- Life Safety Code is not the only code facilities must meet
- Other examples: International Building Code, (BOCA, Standard Building Code, Uniform Building Code), Local Codes
- Codes generally address different types of structures
- Codes are issued periodically (every 2 -4 years)

How Do I Prepare for a Survey?

- Review past surveys
- Evacuation plans – posted and staff familiar with them?
- Fire extinguishers hung and appropriate signage?
- Emergency lighting tested and documented?
- Fire protection systems tested and documented?
- All penetrations properly fire stopped?

How Do I Prepare for a Survey?

- Preparing for the surveyor's arrival
 - Ladders on each floor for surveyor use?
 - Flashlights on each floor for surveyors use?
 - Do all doors close and latch?
 - Any doors held open by wedge or cord?
 - Documentation of fire drills?
 - Documentation of testing?

Life Safety Code – most frequently cited K-tags

- K-18. Corridor doors must be at least fire resistance rated for 20 minutes and resist the passage of smoke (non-sprinklered building)
- K-29 Hazardous areas must be separated by appropriate level of fire rated construction
- K-62 Sprinkler system maintenance
- K-147 Emergency plan compliance
- K-38 Emergency egress way accessible, clear and free of obstruction at all times
- K-25 Smoke barrier construction failures
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- K-50 Fire drills
- K-144 generators inspected/tested
- K-67 Ventilation equipment.

Major Systems

- Automatic Sprinkler and Standpipe Systems
- Fire Pumps
- Fire Alarm Systems
- Fire and Smoke Dampers
- Emergency Electrical Systems
- Fire and Smoke Wall Integrity

Key Elements of Construction

- Construction Type
- Hazardous Areas
- Fire Alarm Systems Manual /Detection
- Sprinklers
- Interior Finishes (corridor/rooms)
- Separations
- Means of Egress (exiting)
- Vertical Openings
- Smoke Control
- Utilities

Compartmentalization

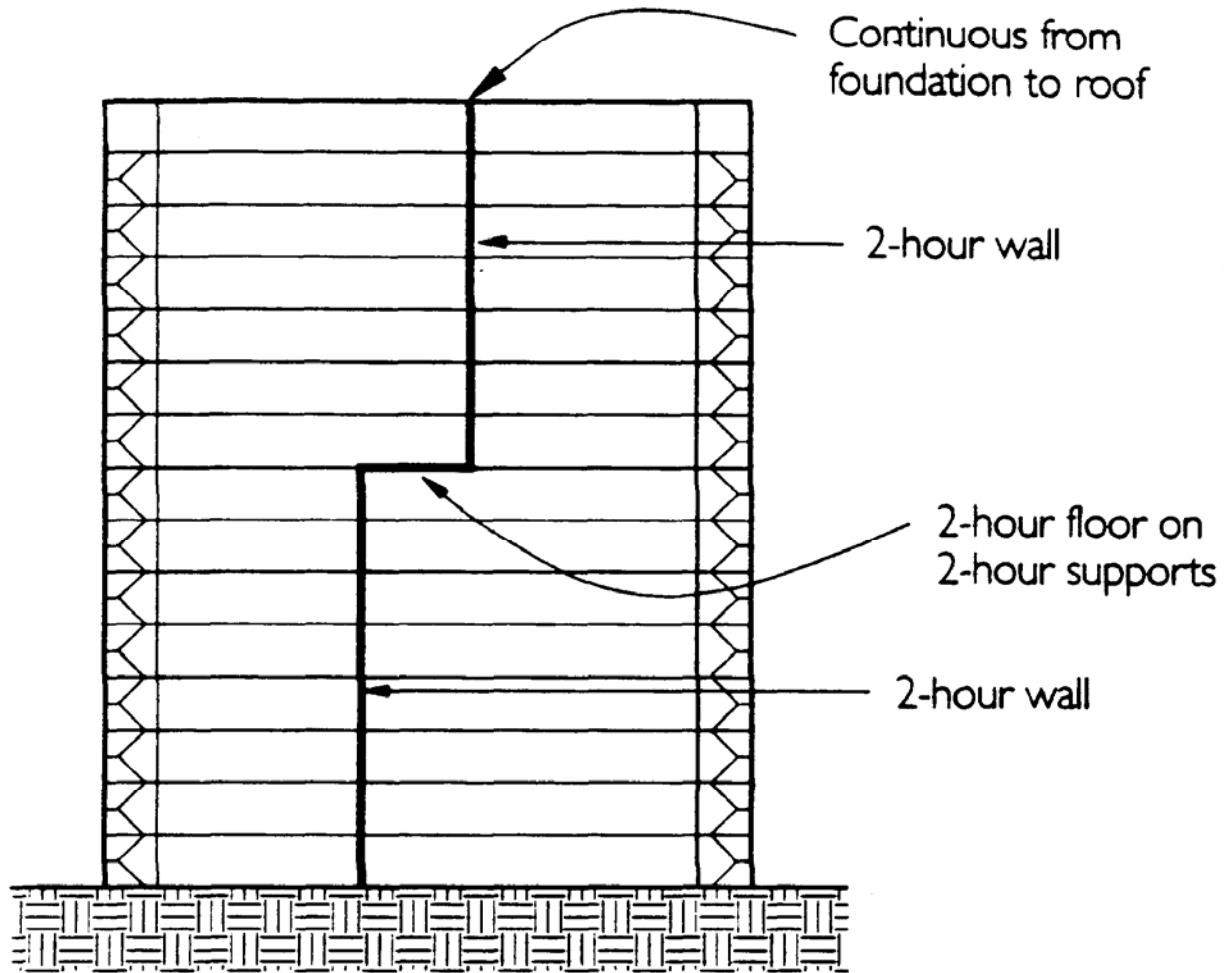
- 3 Levels
 - Corridor walls
 - Smoke barriers (smoke compartments)
 - Exiting the building (i.e., going through a two hour barrier)

Life Safety Code = Boxes

- Think in terms of boxes.
 - What are the boxes made of?
 - Are there holes in the boxes?
 - Have we altered the box?
 - Imagine a box of fire and smoke.

Figure 14.4

Section View of Horizontal Exit



Construction Type – K12

- Defined BY NFPA 220
- 5 types
- Non-Combustible (protected or unprotected)
- Combustible (protected or unprotected) ranging from concrete to wood
- Addresses three basic elements:
 - Exterior walls, columns, beams
 - Floor assemblies
 - Roof/Ceiling assemblies

Table 18.1.6.1 / 19.1.6.2

Table 18.1.6.2 Construction Type Limitations

Construction Type	Stories			4 or More
	1	2	3	
I(443)	X	X	X	X
I(332)	X	X	X	X
II(222)	X	X	X	X
II(111)	X	X	X	NP
II(000)	X	NP	NP	NP
III(211)	X	NP	NP	NP
III(200)	NP	NP	NP	NP
IV(2HH)	X	NP	NP	NP
V(111)	X	NP	NP	NP
V(000)	NP	NP	NP	NP

X: Permitted type of construction.

NP: Not permitted.

Table 19.1.6.2 Construction Type Limitations

Construction Type	Stories			4 or More
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I(332)	X	X	X	X
II(222)	X	X	X	X
II(111)	X	X*	X*	NP
II(000)	X*	X*	NP	NP
III(211)	X*	X*	NP	NP
III(200)	X*	NP	NP	NP
IV(2HH)	X*	X*	NP	NP
V(111)	X*	X*	NP	NP
V(000)	X*	NP	NP	NP

X: Permitted type of construction.

NP: Not permitted.

*Building requires automatic sprinkler protection (See 19.3.5.1.)

Fire Resistance Ratings

Table A.8.2.1 Fire Resistance Ratings (in hours) for Type I through Type V Construction

	Type I		Type II			Type III		Type IV	Type V	
	443	332	222	111	000	211	200	2HH	111	000
Exterior Bearing Walls –										
Supporting more than one floor, columns, or other bearing walls.....	4	3	2	1	0*	2	2	2	1	0*
Supporting one floor only.....	4	3	2	1	0*	2	2	2	1	0*
Supporting a roof only.....	4	3	1	1	0*	2	2	2	1	0*
Interior Bearing Walls –										
Supporting more than one floor, columns, or other bearing walls.....	4	3	2	1	0	1	0	2	1	0
Supporting one floor only.....	3	2	2	1	0	1	0	1	1	0
Supporting a roof only.....	3	2	1	1	0	1	0	1	1	0
Columns –										
Supporting more than one floor, columns, or other bearing walls.....	4	3	2	1	0	1	0	H	1	0
Supporting one floor only.....	3	2	2	1	0	1	0	H	1	0
Supporting a roof only.....	3	2	1	1	0	1	0	H	1	0
Beams, Girders, Trusses, and Arches –										
Supporting more than one floor, columns, or other bearing walls.....	4	3	2	1	0	1	0	H	1	0
Supporting one floor only.....	3	2	2	1	0	1	0	H	1	0
Supporting a roof only.....	3	2	1	1	0	1	0	H	1	0
Floor Construction	3	2	2	1	0	1	0	H	1	0
Roof Construction	2	1½	1	1	0	1	0	H	1	0
Exterior Nonbearing Walls	0*	0*	0*	0*	0*	0	0	0	0	0*

* Represents those members that are permitted to be of approved combustible material.

H: Heavy timber members (see NFPA 220, *Standard on Types of Building Construction*, for requirements).

* Requirements for fire resistance of exterior walls, the provision of spandrel wall sections, and the limitation or protection of wall openings are not related to construction type. Such requirements need to be specified in other standards and codes, where appropriate, and might be required in addition to the requirements of NFPA 220, *Standard on Types of Building Construction*, for the construction type.

Common Deficiencies

- K12 – The existing building is one story which requires the minimum construction type to be protected noncombustible Type II(111) for building not protected by an automatic sprinkler system. The existing building is not protected by an automatic sprinkler system and the building construction type is unprotected uncombustible Type II(000) because of the following observations:

Common Deficiencies

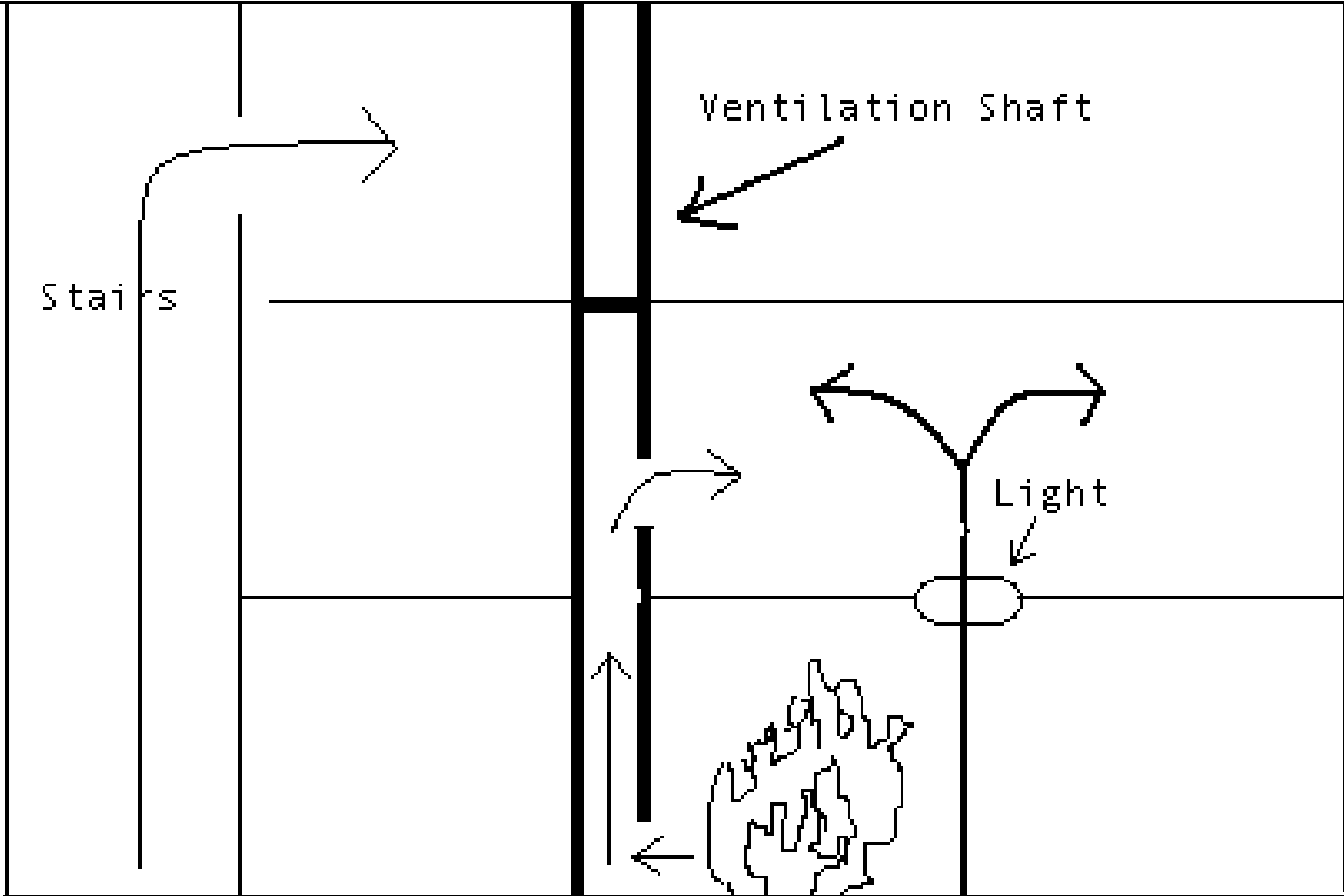
- K12 – (Cont.)
 - The roof/ceiling assembly was not at least one hour fire resistancy rated because ceiling penetrations by air outlets, recessed lighting fixtures, speakers etc... were not properly protected.
 - The existing suspended ceiling grid system is not a rated assembly because there was no provision for heat expansion.

Common Deficiencies

- K12 – (Cont.)
 - May require FSES to resolve.
 - May require additional sprinklering.

Common Deficiencies

- K20 – Stairways, elevator shafts, light and ventilation shafts chutes, and other vertical openings between floors are enclosed with construction having a fire-resistance rating of at least one hour.
- Resolve by enclosing the shaft or by installing dampers in accordance with NFPA 90A (1999 Ed.).

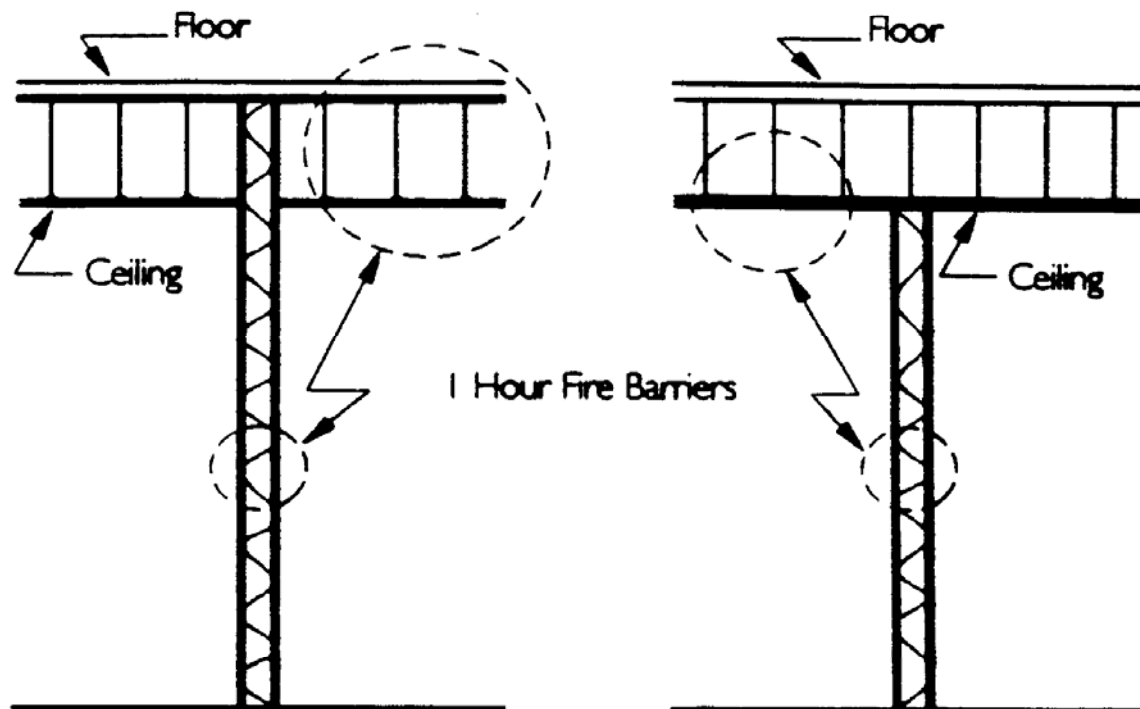


Common Deficiencies

- K17 – Corridors are to be separated from use areas by walls constructed of at least 30 minute fire resistance rating. In sprinklered building, partitions are only required to resist the passage of smoke. In non-sprinklered buildings, walls properly extend to the floor or roof deck above.

Figure 5.2

Fire Barriers Must be Continuous Vertically



Floor/ceiling or roof/ceiling assembly has 1-hour fire resistance rating

Ceiling by itself has 1-hour fire resistance rating

Fire barriers must be continuous from floor to floor (or roof) above unless ceiling by itself has required fire resistance

The Life Safety Code

- Common Deficiencies
 - Openings and Unsealed Penetrations
 - Missing or incomplete shaft enclosures
 - Fire walls have holes
 - Fire walls do not fully extend to the structure above
 - Pipes and ducts pass through fire barriers that are not properly fire stopped

The Life Safety Code

- Common Deficiencies
 - Improper doors and hardware
 - Fire doors are missing labels or the labels are painted over (K20, K29, K33)
 - Delayed Egress Locking Devices do not work or are installed in series (K38)
 - Smoke detectors do not activate fire door closures or magnetic hold open devices (K20)
 - Doors do not positively latch(K18)

K25 – Smoke Barrier

- K25 – Smoke Barrier
 - Penetrations in the smoke barrier
 - Integrity of the smoke barrier is compromised.

Smoke Barriers

- Required for stories used for sleeping rooms of more than 30 patients for existing construction for existing construction. For new construction, smoke barrier is required for any floor with patients.
- Fire resistance rating not less than ½ hour for existing construction. 1 hour for new construction.
- Self closing 20 minute labeled doors
 - Not required to swing in direction of travel
 - Not required to have latching hardware*

Figure 26.2

Smoke Barrier Opening Protection— Existing Health Care

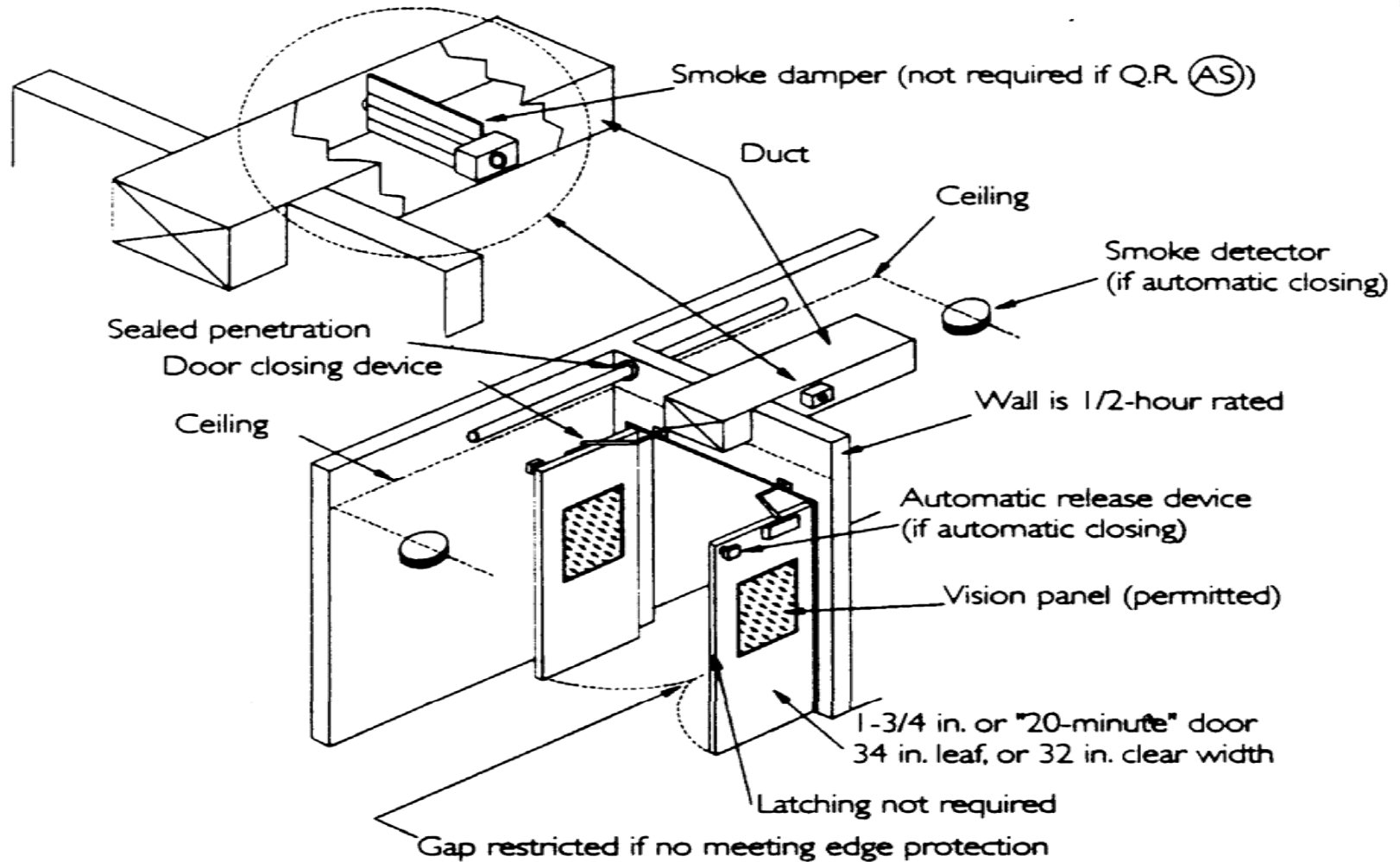


Figure 20.4

Smoke Barrier Opening Protection— New Health Care

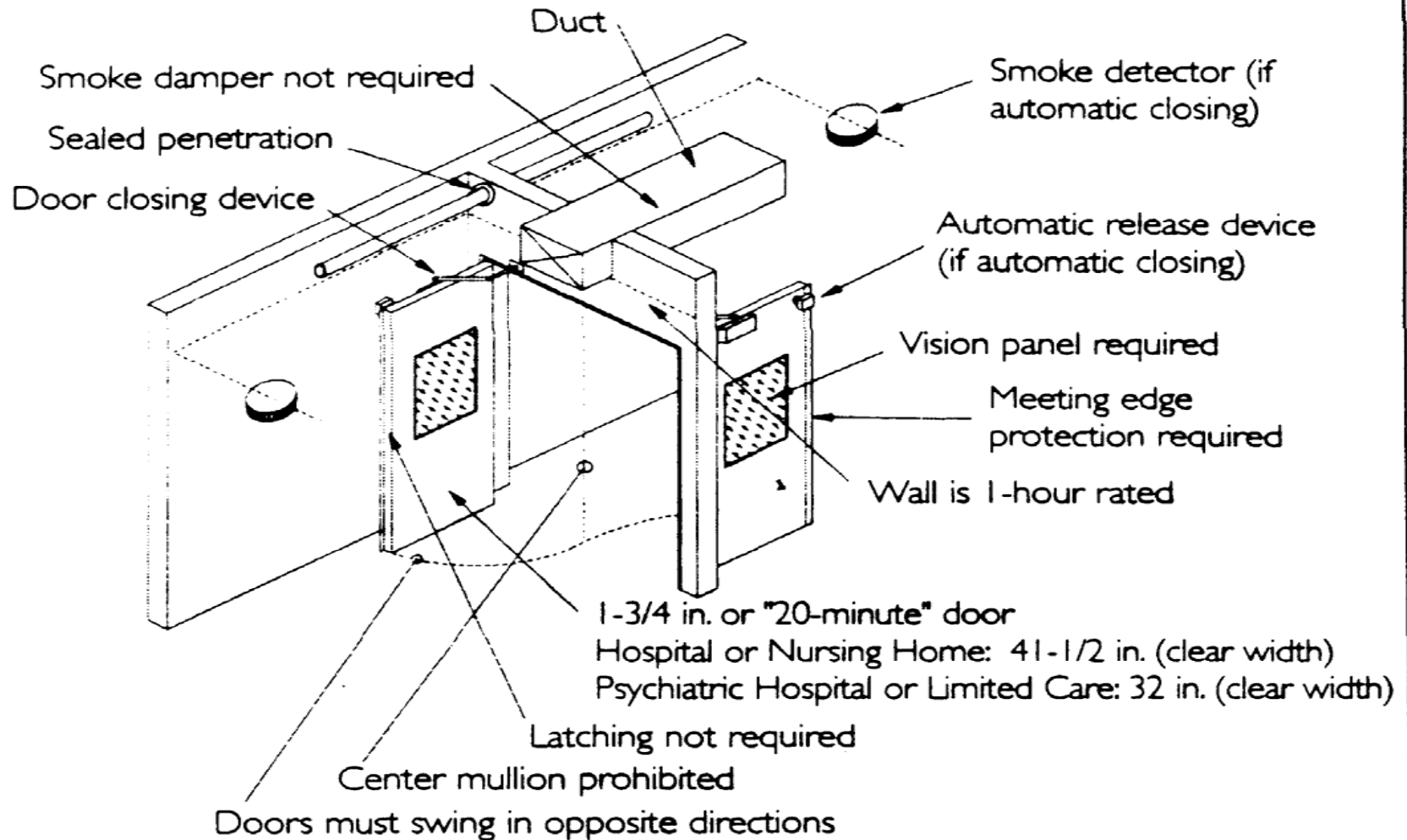
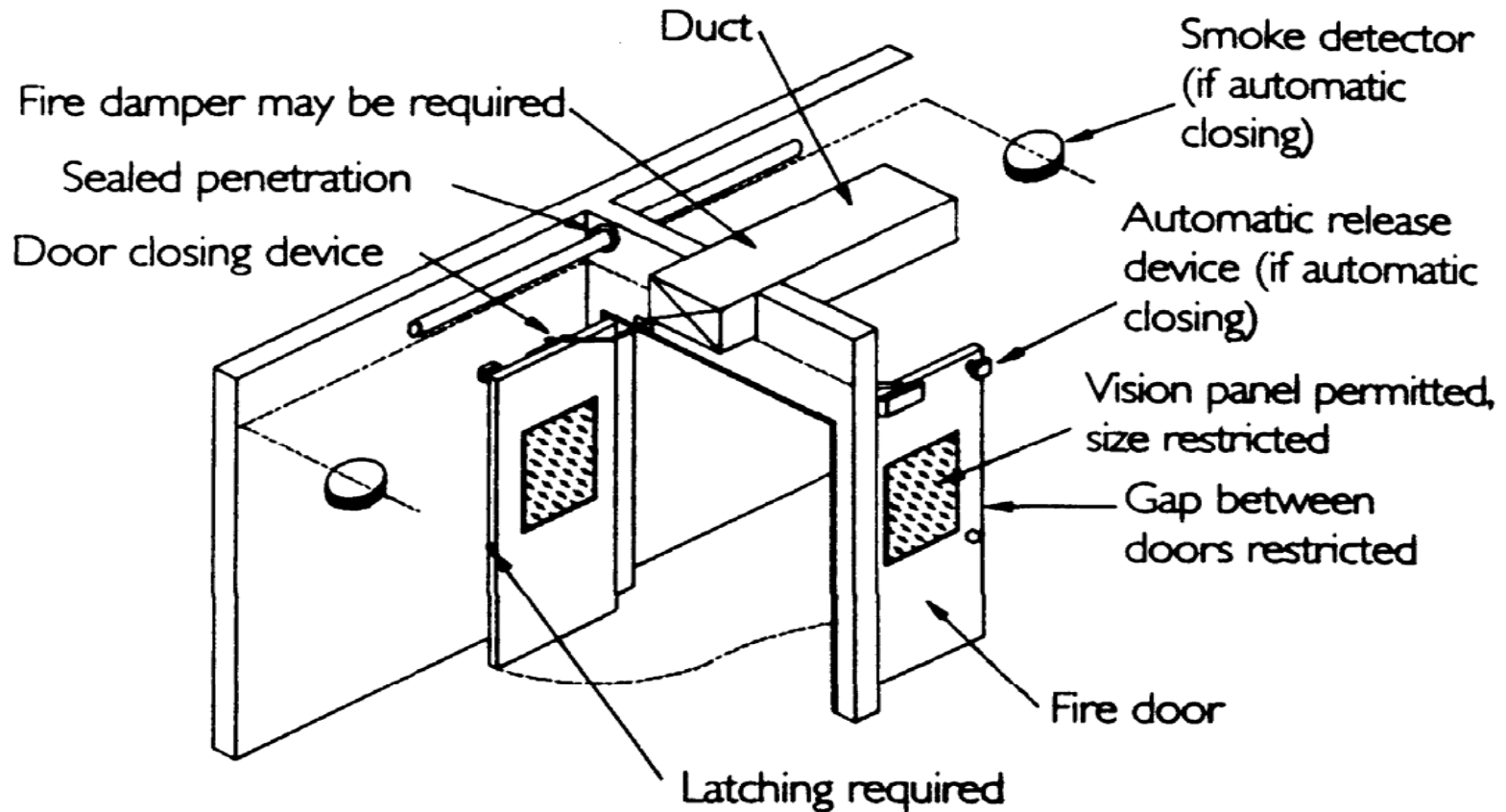


Figure 5.4

Protection of Penetrations and Openings in Fire Barriers



The Life Safety Code

- Common Deficiencies
 - Openings and Unsealed Penetrations
 - Missing or incomplete shaft enclosures
 - Fire walls and smoke barriers have holes
 - Fire walls and smoke barriers do not fully extend to the structure above
 - Pipes and ducts pass through rated barriers without complete closure

The Life Safety Code

- Common Deficiencies
 - HVAC
 - Fire dampers and smoke dampers are not accessible or are not properly installed where required.
 - Flex duct extends for more than 14” or passes through a rated partition

Life Safety

- 4.5.5 Vertical Openings.
- Every vertical opening between the floors of a building shall be suitably enclosed or protected, as necessary, to afford reasonable safety to occupants while using the means of egress and to prevent spread of fire, smoke, or fumes through vertical openings from floor to floor before occupants have entered exits

Vertical Openings - Shafts

- Must be rated
 - 4 stories or greater 2 hours
 - Less than 4 stories 1 hour
 - Must have fire dampers with access panels and labels.

Dampers

- NFPA 90A (1999 Ed.) Section 3-4.7
Required maintenance (4 year cycle)
- Most common Problems
 - Missing
 - Improperly installed
 - Wrong location
 - Insufficient L brackets
 - No breakaway connection

The Life Safety Code

- Common Deficiencies
 - Sprinklers
 - Sprinklers are obstructed, painted or dirty
 - Coverage is not provided in attic spaces
 - There is no point for verification ability that fire suppression water is available at the furthest end of the system
 - Standard response sprinklers are installed in lieu of quick response heads

Hazardous Areas

- Defined in Chapter 19 of NFPA 101
 - (1) Boiler and heater rooms
 - (2) Bulk laundries larger than 100 sf.
 - (3) Paint shops
 - (3) Repair shops
 - (4) Soiled linen rooms
 - (5) Trash collection rooms
 - (6) Rooms larger than 50 sf. used for storage of combustible supplies and equipment in quantities deemed hazardous by the AHJ
 - (7) Laboratories employing flammable or combustible materials in quantities less than those that would be considered a severe hazard

Separations

- Corridor walls ½ hour from floor to underside of deck
 - Minimum 1¾ inch thick solid-bonded core wood or 20 minute labeled
 - Latching hardware
- Hazardous areas 1 hour separation or protected by automatic sprinklers
- Smoke barriers to divide every story used for sleeping more than 30 patients with minimum ½ hour construction
 - Not less than 2 compartments
 - Compartments not to exceed 22,500 sf.
 - Travel distance from any point to reach smoke barrier not to exceed 200 ft.
- Vertical openings minimum 1 hour construction dependant upon number of stories connected
 - Openings to be protected as appropriate for barrier

Fire Alarm

- Manual system
- For non-sprinklered buildings, detection required in nursing home patient rooms where upholstered furniture is introduced. May be battery operated.
- Detection required for areas open to Corridor
- Detection required within 5' of doors with hold open devices (if local detection only)*
- Occupant notification – Audible and visible signals (visible not required for existing systems)
- Emergency forces notification – Automatically notify municipal fire department

Interior Finishes

- Existing Materials – Class A or Class B. May use C Class if sprinklered throughout.
- New Materials – Class A.

Delayed Egress Locking Devices

- Proper Signage
- Sequential delayed egress locks in a egress pathway will create a problem
- Opens timely

Building Services

- Electrical systems must comply with NFPA 70
- HVAC systems must comply with NFPA 90A
- Combustion air and fueled fired equipment must comply with NFPA 54
- Elevators must comply with ANSI A17.1

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2013 Sprinkler Mandate

- On August 13, 2008, CMS published the final rule to require all certified long term care facilities to be fully sprinklered by
- **August 13, 2013**

2013 Sprinkler Mandate

- **Fully sprinklered means fully sprinklered in accordance to NFPA 13, 1999 Edition**
 - Complete coverage includes, but is not limited to: entire facility; all closets; storage areas; walk-in coolers and freezers; overhangs; electrical rooms; elevator hoist ways
- **It is the facility's responsibility to fully understand and comply with this rule!**
 - If you do not understand what “fully sprinklered” means or are not sure, seek help from a consultant

2013 Sprinkler Mandate

- Keep in mind.....sprinkler installations must be submitted to the IDPH for review and approval prior to starting the work.
 - Be sure to factor this time into your schedule
- Good sprinkler contractors are limited
 - As the deadline approaches, more and more contractors will be busy and may not be able to complete your project by the deadline
 - Be proactive.....there will be no extensions or exceptions!

2013 Sprinkler Mandate

There will be no waiver and/or FSES provision for fully sprinklered after the August 13, 2013 deadline.

It is imperative you ensure that your facility is fully sprinklered in accordance with the regulation on August 1, 2013.

Failure to do so is likely to result in enforcement remedies, including but not limited to termination.

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Addressing a survey

- Timing becomes critical
- The number of times that your facility has passed surveyors is irrelevant
- A comprehensive review by a professional early in the process will save money

Timing

- 90 days after your initial survey date (health usually) CMS must impose a denial of payment unless the facility has achieved substantial compliance or has a waiver in place.
- A blown appeal can mean lots of lost \$.

The Life Safety Code

- Three options for non-compliance:
 - Correct the alleged deficiency
 - Fire Safety Evaluation System (FSES)
 - Waiver (temporary or Annual)
- Path you choose will depend on cost and what is feasible.

Fire Safety Evaluation System

- FSES provides alternative approaches to life safety based on the 2000 *Life Safety Code*. It is intended to be used *with* the *Life Safety Code*, not as a substitute
- Section 1.5 of the *Life Safety Code* permits alternative compliance with the *Code* under equivalency concepts where such equivalency is approved by the authority having jurisdiction
- The methodologies contained herein can be used to help determine equivalency where used as part of the technical documentation submitted to the authority having jurisdiction

Fire Safety Evaluation System

- Looks at Building components and evacuation characteristics.
- Must be done by a knowledgeable, third party.
- More detail is required.
- Must be done and submitted with the plan of correction.

Fire Safety Evaluation System

- The entire residence is evaluated unless
 - Portions are separated by 2 hour construction
 - Zones are created by the smoke barrier walls.
- Safety parameters are evaluated
 - Fire alarm system, smoke detection, construction, automatic suppression, exit access, finishes
 - A single weighted value is assigned

Waivers

- **Annual**

- Must reapply for a waiver after the next survey or after a change
- Does not require corrective action

- **Temporary**

- Time limited (extended plan or correction date)
- Stays penalties while corrective action is being completed
- Interim measures
- Watch your expiration date

Annual Waivers

- The **provider** must demonstrate that:
 - the waiver would not adversely affect patient and staff health and safety; and
 - it would impose an unreasonable hardship on the facility to meet a specific LSC requirement.
 - *now* looking for measures above and beyond.

Annual Waivers

- **When to use?**
 - Financial hardship
 - Inability to make the corrections to the building/physical plant
 - Extremely hard/expensive correction to a deficiency causing minimal risk to safety

Annual Waivers

- **Requests for an Annual Waiver must include:**
 - IDPH's Annual waiver request form
 - Narrative detailing why waiver would not adversely affect the health and safety of residents and staff
 - A detailed financial statement that clearly shows that correction of the deficiency would pose a significant financial burden to the facility

Annual Waivers

- **Requests for an Annual Waiver must include:** (continued)
 - An FSES, along with Table 5, Alternates, must be submitted to assure the FSES cannot pass
 - Identify the additional Life Safety features, above the minimum required, that will be provided to attain an equivalent level of life safety should the waiver be granted

Annual Waivers

- Provide detailed information on the deficiency being waived and why it cannot be corrected
 - Plans/drawings/narrative clearly identifying deficiency
 - A current detailed signed cost estimate from a licensed architect, engineer or contractor for correcting the deficiency

Annual Waivers

- Annual waivers must be requested every year
 - All required information must be re-done and resubmitted for consideration
 - No guarantee that an annual waiver will be granted or continue to be granted in the following years

Annual Waivers

- FSES may be required, even if you won't pass.
- A waiver will not be granted “if patient safety is compromised in any way.”

Annual Waivers

- Interplay between IDPH and CMS about standards, review, recommendations, and approvals for Annual Waiver requests

Temporary Waivers

- Commitment to correct the deficiency, just need additional time to accomplish the correction.
- The “additional time” of a temporary waiver allows a facility to set aside the LSC deficiency and close the survey cycle, thereby avoiding CMP, DPNA, and termination remedies.
- Once the correction is made, no more temporary waivers, Annual Waivers or FSES should be required

Temporary Waivers

- Correction of deficiencies over an extended period of time
- Time and budget drive correction of major LSC deficiencies
- Time period is dependant on the scope of the deficiency being corrected

Temporary Waivers

- How much “additional time” is available under a temporary waiver?
 - 90 days, 6 months, 1 year, many years?
- Extensions or “stacking” temporary waivers
- Temporary waiver is not available if the “correction” of the deficiency is “***perform an FSES***”

Temporary Waivers

- **Interim measures** during the additional time for correction
 - above and beyond existing requirements of LSC
 - Tailored to the LSC deficiency
 - Facility must **do** the interim measures and document

Temporary Waivers

- **Requests for a Temporary Waiver must include:**
 - IDPH's temporary waiver form
 - Interim Life Safety measures that will put into place
 - Develop a phased construction plan for correction of deficiency?
 - Multi-year plan if reasonable and required

Temporary Waivers

- **Requests for a Temporary must include:** (continued)
 - Letter of Commitment
 - Company/corporate letterhead
 - Signed by corporate officer
 - Commits the provider to develop an acceptable phased correction action plan for the deficiency within 3-8 months of RO acceptance of temporary waiver
 - Time may vary depending on scope of the plan
 - Phased construction plan will be developed and submitted to the SA at the end of the 3-8 month period
 - The plan must be detailed (drawings, specifications, etc.) and reasonable

Temporary Waivers

- **Requests for a Temporary Waiver**

must include: (continued)

- The letter of commitment must indicate that a detailed status letter will be submitted to the SA
 - Every 60 days from the approval date of the temporary waiver
 - Identify the progress of the development of the phased construction plan to date
 - Identify the remaining steps necessary to complete the phased construction plan

Temporary Waivers

- **Requests for a Temporary Waiver must include:** (continued)
 - Once SA/RO accepts the providers phased construction plan the provider will implement the phased construction plan
 - Another temporary waiver will be issued for construction
 - SA/RO will monitor progress of the construction to assure the provider is on schedule

Temporary Waivers

Tougher scrutiny:

- Unjustifiable delays in completion of the phased construction may result in revocation of the temporary waiver
 - In turn causes enforcement remedies (CMP, DPNA) and *even termination from Medicare program*
- No guarantees that temporary waivers will continued to cover deficiencies in years to come
 - If CMS *mandates* correction, the issue then falls under CMS's time constraints and cost will not be a factor (ex. – mandate for fully sprinklered buildings)

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