Inspection of Rated Doors

Welcome to the Feb 2018

WHEA Lunch & Learn

Lauzon Life Safety Consulting

Healthcare Survey Protection

Your Protective Shield in the Code War

Welcome to the Feb 2018

WHEA Lunch & Learn

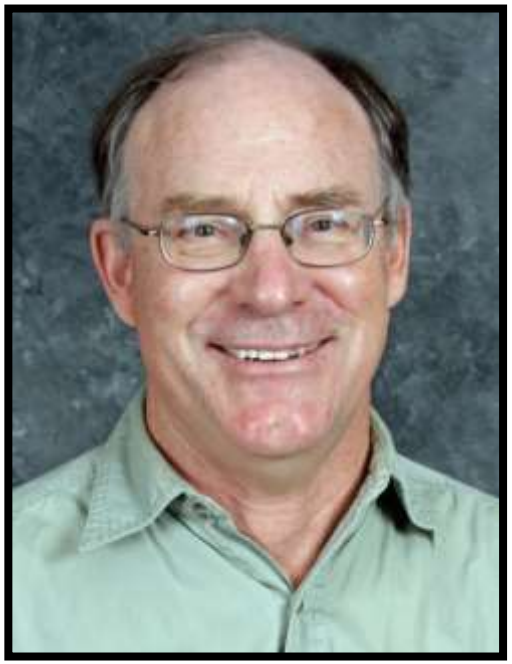
On Location at

Mercy Health System, Janesville

Hospital & Trama Center

Presenters

Bill Lauzon, PE



1973-2006 - “Facility Engineer”

2006-2011 – AHJ with DHS/DQA

2011-2018 - Consultant

Heather Lauzon Werner

2012-2015 - “Facility Director”

2011-2018 – Consultant

President of Lauzon Life Safety Consulting

Guest Presenter

Lynn Wallace, PE

1997-2018

DHS-DQA

“Retired” Plan Reviewer & Surveyor

Lynn’s comments are his own personal interpretations of the codes.

He does not speak on behalf of the Dept of Health.

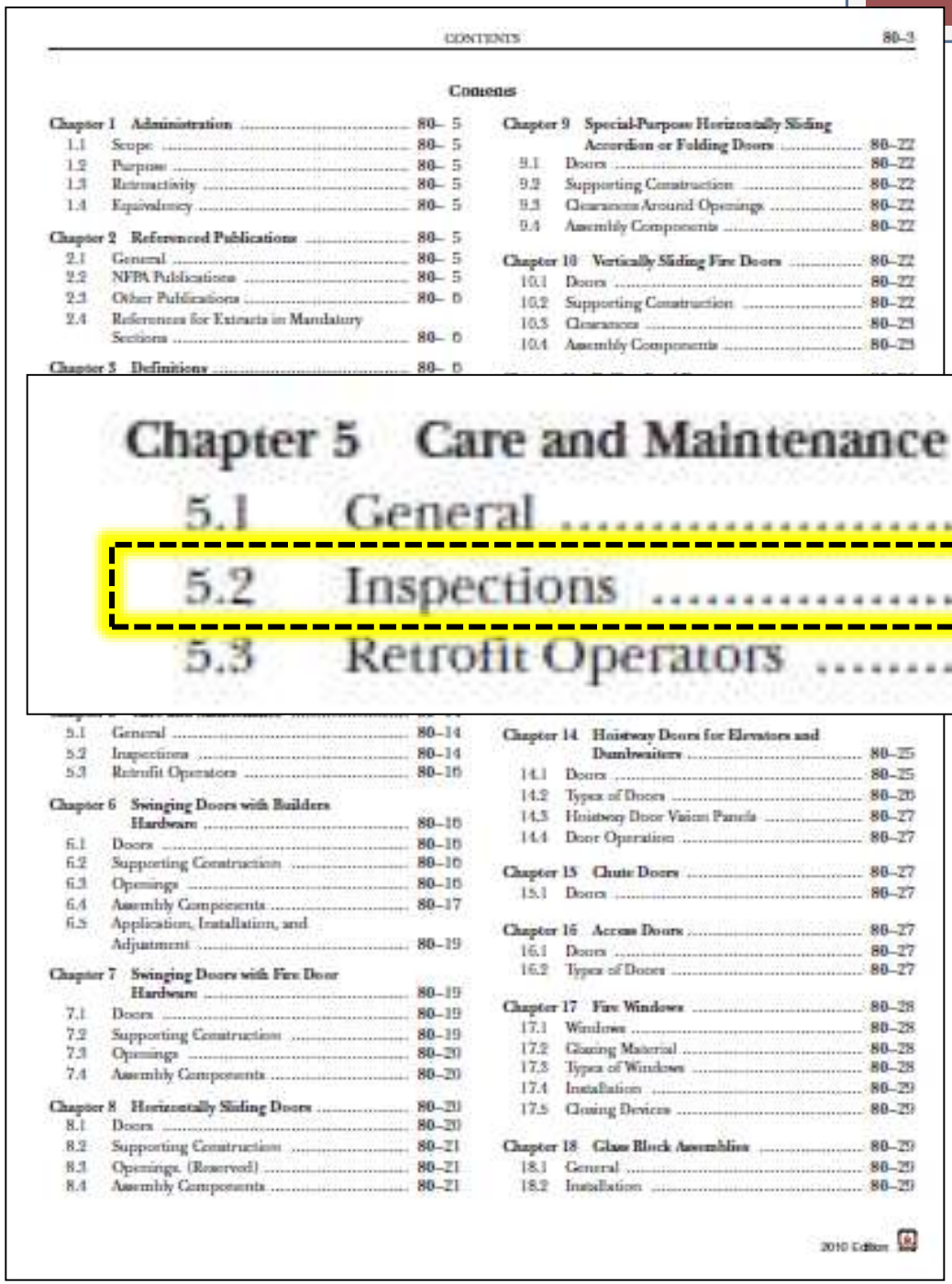
Rated Door Inspections

1. NFPA 80 Requirements (Slides 6-9)
2. Key Elements of Inspection (Slides 10-23)
3. Point-by-Point Inspection (Slides 24-195)

Enter Questions in the "Chat Box" ANYTIME

NFPA 80

Table of Contents



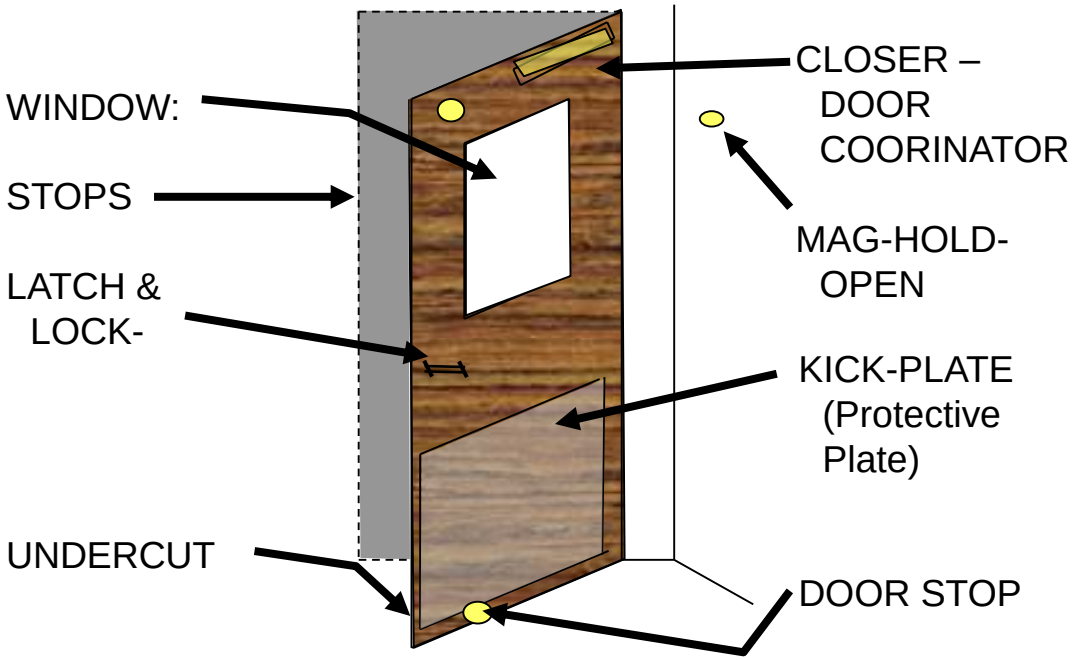
CONTENTS 80–3

Contents

2010 Edition

Chapter 5.2

Inspect and test not less than annually, and a written record maintained



Chapter 5.2

5.2.4 Swinging Doors with Builders Hardware or Fire Door Hardware.

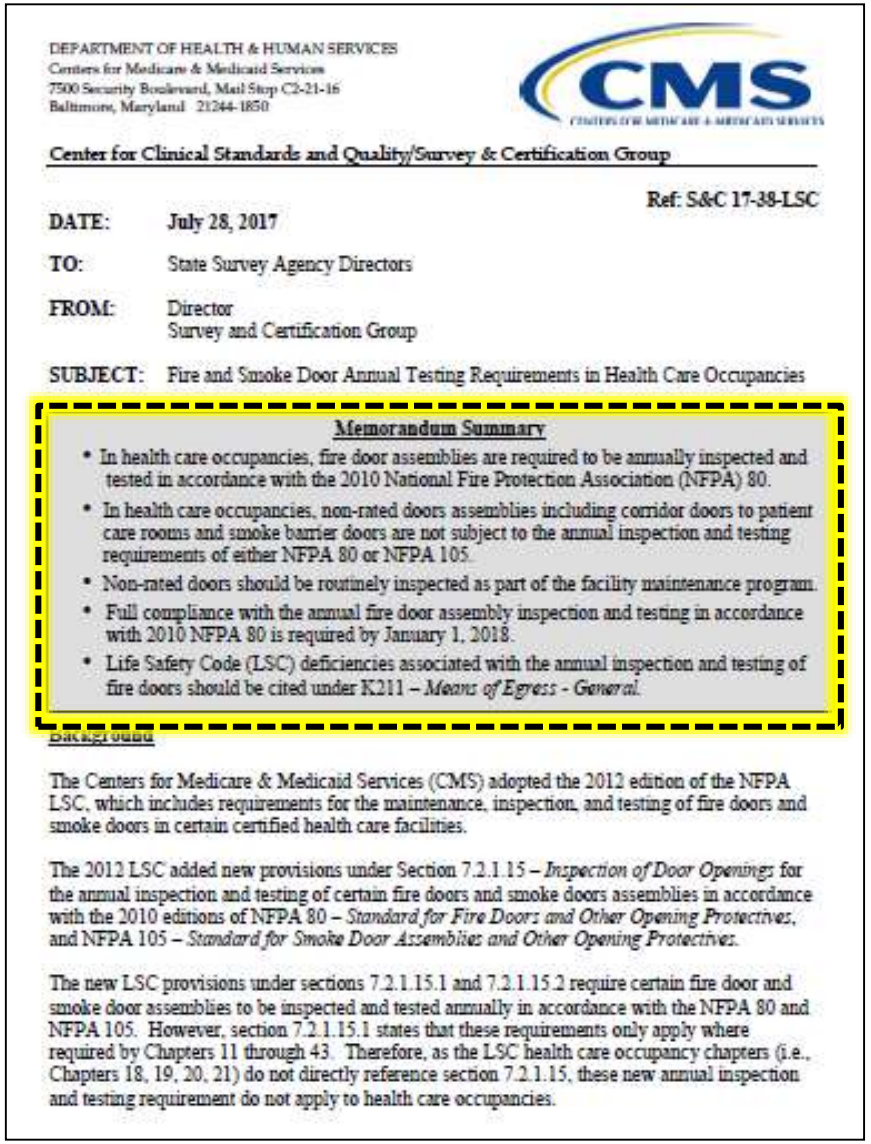
5.2.4.1 Fire door assemblies shall be visually inspected from both sides to assess the overall condition of door assembly.

▲ **5.2.4.2** As a minimum, the following items shall be verified:

▲ (1) No open holes or breaks exist in surfaces of either the door or frame.
▲ (2) Glazing, vision light frames, and glazing beads are intact and securely fastened in place, if so equipped.
▲ (3) The door, frame, hinges, hardware, and noncombustible threshold are secured, aligned, and in working order with no visible signs of damage.
▲ (4) No parts are missing or broken.
▲ (5) Door clearances do not exceed clearances listed in 4.8.4 and 6.3.1.7.
(6) The self-closing device is operational; that is, the active door completely closes when operated from the full open position.
(7) If a coordinator is installed, the inactive leaf closes before the active leaf.
(8) Latching hardware operates and secures the door when it is in the closed position.
▲ (9) Auxiliary hardware items that interfere or prohibit operation are not installed on the door or frame.
(10) No field modifications to the door assembly have been performed that void the label.
▲ (11) Gasketing and edge seals, where required, are inspected to verify their presence and integrity.

Swinging Doors
(11 Inspection Points)

CMS S&C Letter 17-38



DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop C2-21-16
Baltimore, Maryland 21244-1850

CMS

Center for Clinical Standards and Quality/Survey & Certification Group

Ref: S&C 17-38-LSC

DATE: July 28, 2017

TO: State Survey Agency Directors

FROM: Director
Survey and Certification Group

SUBJECT: Fire and Smoke Door Annual Testing Requirements in Health Care Occupancies

Memorandum Summary

- In health care occupancies, fire door assemblies are required to be annually inspected and tested in accordance with the 2010 National Fire Protection Association (NFPA) 80.
- In health care occupancies, non-rated doors assemblies including corridor doors to patient care rooms and smoke barrier doors are not subject to the annual inspection and testing requirements of either NFPA 80 or NFPA 105.
- Non-rated doors should be routinely inspected as part of the facility maintenance program.
- Full compliance with the annual fire door assembly inspection and testing in accordance with 2010 NFPA 80 is required by January 1, 2018.
- Life Safety Code (LSC) deficiencies associated with the annual inspection and testing of fire doors should be cited under K211 – *Means of Egress - General.*

Background

The Centers for Medicare & Medicaid Services (CMS) adopted the 2012 edition of the NFPA LSC, which includes requirements for the maintenance, inspection, and testing of fire doors and smoke doors in certain certified health care facilities.

The 2012 LSC added new provisions under Section 7.2.1.15 – *Inspection of Door Openings* for the annual inspection and testing of certain fire doors and smoke doors assemblies in accordance with the 2010 editions of NFPA 80 – *Standard for Fire Doors and Other Opening Protectives*, and NFPA 105 – *Standard for Smoke Door Assemblies and Other Opening Protectives.*

The new LSC provisions under sections 7.2.1.15.1 and 7.2.1.15.2 require certain fire door and smoke door assemblies to be inspected and tested annually in accordance with the NFPA 80 and NFPA 105. However, section 7.2.1.15.1 states that these requirements only apply where required by Chapters 11 through 43. Therefore, as the LSC health care occupancy chapters (i.e., Chapters 18, 19, 20, 21) do not directly reference section 7.2.1.15, these new annual inspection and testing requirement do not apply to health care occupancies.

Published July 28, 2017

- Non-rated corridor & smoke barrier doors do NOT need to be annually inspected
- BUT, should be routinely inspected as part of the facility maintenance program
- Moved Due Date for Fire Door Inspections under NFPA 80 to **Jan 1, 2018**
- New specific door inspection tag: K211

CMS S&C Letter 17-38

Annual Inspection & Testing Requirements in Health Care Occupancies

Although the requirements under LSC section 7.2.1.15 are not applicable to health care occupancies, annual inspection and testing of fire doors assemblies in accordance with NFPA 80 are still required in health care occupancies by LSC section 8.3.3.1, which is applicable to all occupancy chapters.

In addition, with the exception of new doors in horizontal exits, the annual inspection and testing of smoke door assemblies in accordance with NFPA 105 is not required per LSC section 8.5.4.2 as doors in health care occupancies are not required to be smoke-leakage-rated.

- LSC 7.2.1.15 inspections DO NOT apply to health care
- LSC 8.3.3.1 requires inspections of rated doors
- LSC 8.5.4.2 does NOT require smoke barrier door inspection under NFPA 105

1. DOOR INVENTORY

ALL RATED DOORS

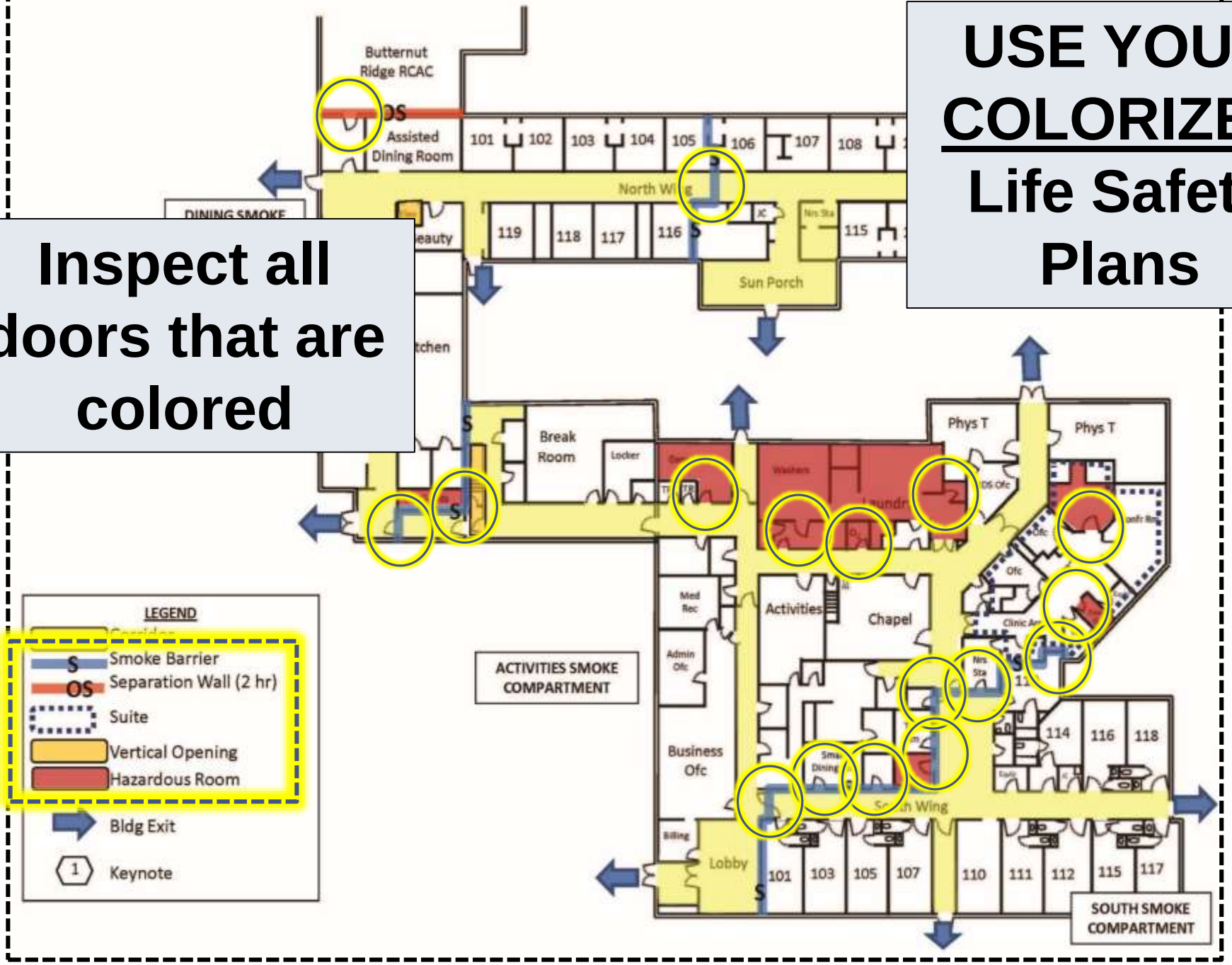
- Hazardous Rooms
- Stairwells
- Occupancy Separations
- Building Separation
- Horizontal Exits
- Exit Passageways
- Smoke Barriers (if labeled)
- Corridors (if labeled)
- Other Doors (if labeled)

Recommend always Including

Process

USE YOUR COLORIZED Life Safety Plans

Inspect all doors that are colored



2. USE QUALIFIED INSPECTORS

- Do NOT need to use a vendor
- No “certification”
- Must be experienced & knowledgable
- No definitions
- Wide variability of what inspectors think is “qualified”

3. USE APPROPRIATE FORMS

Document Requirements:

- Date of Inspection (M/D/Y)
- Max 365 days between COMPLETION Dates

It's NOT when you start, but when you FINISH the inspection

- Who Performed Inspection (& qualified?)
- What was inspected? (full inventory)
- How performed? (Include all check points; record readings)
- Repairs made? (& date re-tested)

Free Form

RATED HINGED DOOR ANNUAL INSPECTION

A RATED HINGED DOORS

Page 1 of 3

Facility:

Inspector Name	Inspection Date

Inspect doors for ALL check-points below and enter results on page 3; If door fails ANY check, enter # of check-point to indicate problem, describe details & corrective action on page 2 . EVERY rated hinged door must be included on the Report. Use form 1BC for Sliding or Rolling Rated doors.

This checklist contains the minimum inspection requirements of NFPA 80 and the major door requirements of the LSC

	Y N
Documentation is on file that shows the person who performed tests has knowledge & understanding of the operating components of the door being inspected, per NFPA 80-2010,§5.2.3.1	

Visual inspection must be performed from both sides of door prior to testing	NFPA 80 §5.2.4.1
1. No parts are missing or broken	NFPA 80 §5.2.4.1(4)
2. No Damage on Hardware, Door, frame, & hinges secured, aligned	NFPA 80 §5.2.4.1(3)
3. Closer is operational so each doors completely close from the full open position	NFPA 80 §5.2.4.1(6)
4. Automatic Closing doors close under fire conditions (closer, hold-open & smoke detector)	NFPA 80 §5.2.14.2
5. Closer speed set per ADA requirements (min 5 sec from full open to 12° open).	ADA §404.2.7.1
6. Coordinator needed on pairs of single egress doors, so the inactive leaf closes before the active	NFPA 80 §5.2.4.2(7)
7. Rating Labels are on Door & Frame & readable	
8. Door gaps do not exceed clearances 1/8" (astrigal required on pairs of corridor doors > 2003)	NFPA 80 §5.2.4.1(5)
9. No field modifications that void the rating label.	NFPA 80 §5.2.4.2(10)
10. Gaskets and edge seals are inspected to verify their presence and integrity	NFPA 80 §5.2.4.2(11)
11. Surface of Door & Frame does Not have open holes or breaks; no grills w/o damper	NFPA 80 §5.2.4.2(1)
12. Signs must (a) be intact, legible, proper size, (b) Have required wording, (c)No scews	NFPA 80 §4.1.4.2.2
13. Glazing is intact and securely fastened in place, if so equipped	NFPA 80 §5.2.4.1(2)
14. Positive Latching hardware operates and secures the door when it is closed	NFPA 80 §5.2.4.2(8)
15. Latch located >=34" high (new) and <=48" high (if installed > 2003)	LSC §7.2.1.5.10
16. Pairs of doors must (a) both have independent unlatching, or auto flush bolt & no latch on inactive and unlatching hardware on active door; (b) Astragel on rated doors & corridor doors;	LSC §7.2.1.5.11
17. Unlatch from egress side (a) with 1 motion; (b) not require use of a key or special knowledge; (c) Obvious operation in all light conditions	LSC §7.2.1.5
18. Max Opening force to (a) release latch is 15 lb; (b) to set door in motion with a closer is 30 lb (new) and (c) to full open is 15 lbs (new); (d) Doors without closers open <= 5 lbs; (e) <=50 lb if installed > 1988	LSC §7.2.1.4.5
19. Auxiliary hardware items that interfere with operation are not installed	NFPA 80 §5.2.4.2(9)
20. "Panic-type" hardware does not have locking device (except Delayed Egress, Acess-Control,	LSC §7.2.1.5.12
21. Outswinging doors must (a) Leave >= 50% of egress width; (b) project <= 7" into width when full open	LSC §7.2.1.4.3
22. No obstruction to full opening & freely closing; Floor is Level on both sides of door	LSC §7.2.1.15.7(1)
23. No wedging or blocking of doors in the open position	NFPA 80 §5.2.13.3
24. Kickplates: ≤ 48"@Haz Rm(per LSC); ≤ 16" hi @other Fire Doors, unless rated (no limit @Smk Doors)	NFPA 80 §6.5.4.3
25. Door Undercut=< 3/4" on Fire Doors; & the minimal needed for operation on Smoke Doors	NFPA 80 §4.8.4.1
26. Power doors: (a) must set in motion with <= 50 lbs; (b) will swing fully open; (c) Has sign "In Emergency, Push to Open"; (d) Min 30" wide; (e) openable on power failure	LSC §7.2.1.9
27. Delayed egress locks must: (a) release in <=15 sec after max 3 sec pushing with <= 15 lb; (b) manual relock only; (c) audible alarm at door; (d) release on power failure, sprinkler, one heat, or 2 smoke detectors ; (e) sign says "Push Until Alarm Sounds, Door Can Be Opened In 15 Seconds" in 1" hi contrasting letters	LSC §7.2.1.6.1
28. Access control must: (a) unlock from egress side via auto sensor; (b) unlock with manual button <=5' from door & Independent from sensor; (c) Signed "Push to Exit"; (d) unlatch on power loss, sprinkler, or fire alarm	LSC §7.2.1.6.2
29. Hardware examined & inoperative parts, or other defects replaced without delay	NFPA 80 §5.2.9

LLSC Form #1BBb

3 sheets to Document your Inspections

Page 1: Inspection Check Points

Download from our website:

(Instructions Following)

Free Form

LLSC Form #1BBb

RATED HINGED DOOR ANNUAL INSPECTION

A — RATED HINGED DOORS

Facility:

Inspector Name | Inspection Date

DEFICIENCY & CORRECTION SUMMARY

Instructions: Use this sheet to describe the issues found during the door inspection of the facility. Enter NONE of no deficiences are found. Page 2 should always be attached to the actual inspection report. All deficiencies must be corrected as soon as possible after discovery. Document each step of the repair process.Re-inspect / test door to ensure compliance.

Door ID	Floor	Wing	Room Name	ISSUE # & DESCRIPTION	CORRRECTIVE ACTIONS	DATE & WHO REPAIRED

Use Additional Pages as needed. Every Swinging Rated Door must be listed

Sheet 2: Document Repairs

Download from our website:

(Instructions Following)

Free Form

LLSC Form #1BBb

RATED HINGED DOOR ANNUAL INSPECTION

A RATED HINGED DOORS

Facility:

Page 3 of 3

Inspector Name	Inspection Date

RESULTS OF DOOR INSPECTION

INSTRUCTIONS: Inspect doors for ALL check-points on Page 1 & enter Pass/Fail below; If door fails ANY check-point on Page 1, enter # of check to indicate problem AND describe details & corrective actions on page 2; Use additional sheets as needed

Door ID*	Floor	Wing	Room Name	**LS Function	Pass / Fail	Reasons for Failure (Enter Check # from Page 1); Describe Repair on Page 2
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	
					❑ ❑	

*Door ID: Any method facility wants to uniquly identify each door (Door #, Asset #, 1..2..3..ect). Best to tag ID on door

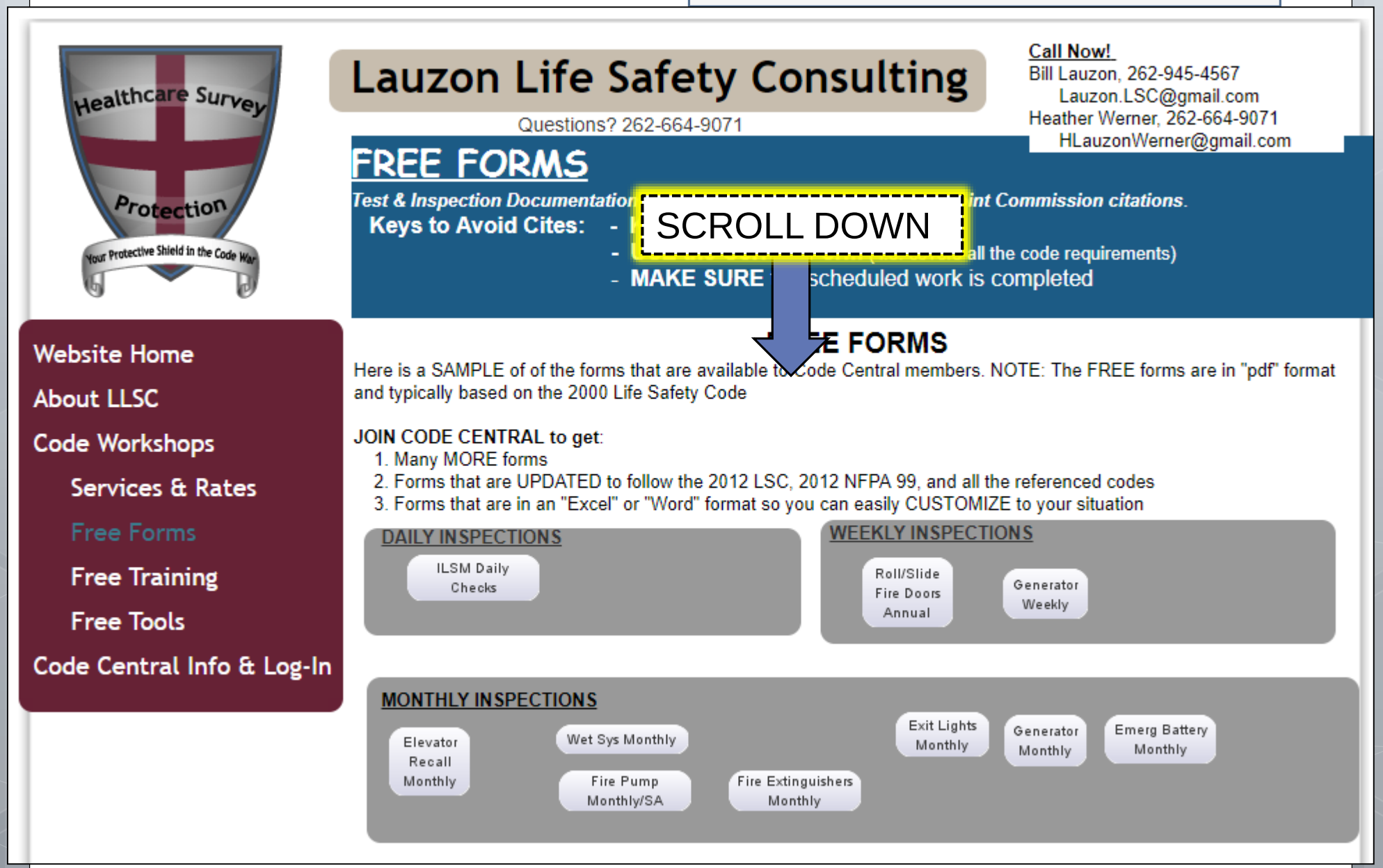
** Life Safety Function: C=Corridor; H=Haz Rm; Occupancy Separation; B=Bldg Construction Separation; H=Horizonatal Exit; EP=Exit Passageway; E=Exit; S=Smoke Barrier; V=Vertical Opening/Stairs/Shaft; O=Other

Sheet 3: Document Inspections

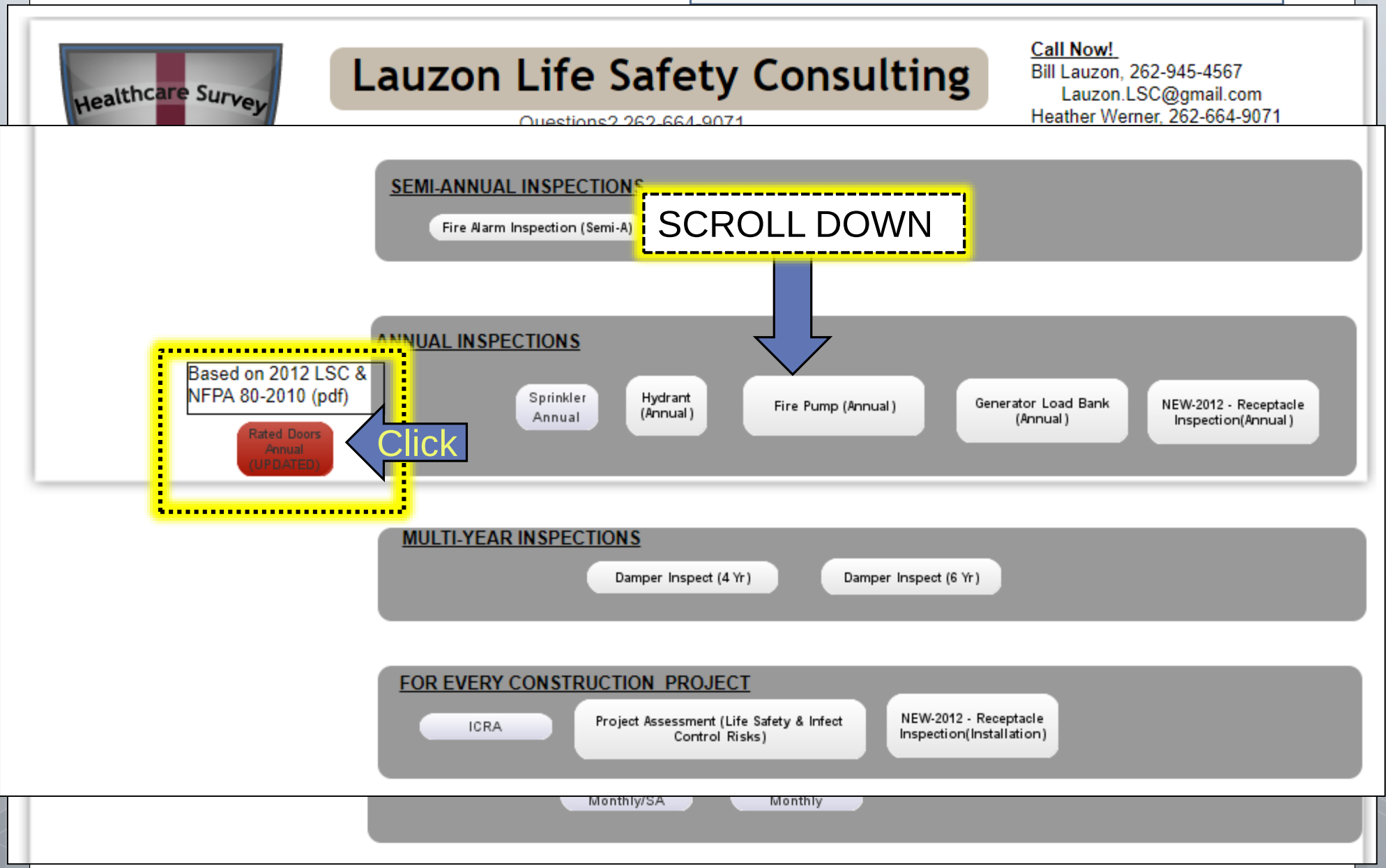
Free LLSC Form

Download from our website:
http://www.lauzon-lsc.com

Free LLSC Form



Free LLSC Form



Free LLSC Form

RATED HINGED DOOR ANNUAL INSPECTION

A — RATED HINGED DOORS

Facility:

Inspector Name	Inspection Date

Inspect doors for ALL check-points below and enter results on page 3; If door fails ANY check, enter # of check-point to indicate problem, describe details & corrective action on page 2 . EVERY rated hinged door must be included on the Report. Use form 1BC for Sliding or Rolling Rated doors.

This checklist contains the minimum inspection requirements of NFPA 80 and the major door requirements of the LSC

	Y	N	
Documentation is on file that shows the person who performed tests has knowledge & understanding of the operating components of the door being inspected, per NFPA 80-2010,§5.2.3.1			
Visual inspection must be performed from both sides of door prior to testing			NFPA 80 §5.2.4.1
1. No parts are missing or broken			NFPA 80 §5.2.4.1(4)
2. No Damage on Hardware, Door, frame, & hinges secured, aligned			NFPA 80 §5.2.4.1(3)
3. Closer is operational so each doors completely close from the full open position			NFPA 80 §5.2.4.1(6)
4. Automatic Closing doors close under fire conditions (closer, hold-open & smoke detector)			NFPA 80 §5.2.14.2
5. Closer speed set per ADA requirements (min 5 sec from full open to 12° open).			ADA §404.2.7.1
6. Coordinator needed on pairs of single egress doors, so the inactive leaf closes before the active			NFPA 80 §5.2.4.2(7)
7. Rating Labels are on Door & Frame & readable			
8. Door gaps do not exceed clearances 1/8" (astrigal required on pairs of corridor doors > 2003)			NFPA 80 §5.2.4.1(5)
9. No field modifications that void the rating label.			NFPA 80 §5.2.4.2(10)
10. Gaskets and edge seals are inspected to verify their presence and integrity			NFPA 80 §5.2.4.2(11)
11. Surface of Door & Frame does Not have open holes or breaks; no grills w/o damper			NFPA 80 §5.2.4.2(1)
12. Signs must (a) be intact, legible, proper size, (b) Have required wording, (c)No scews			NFPA 80 §4.1.4.2.2
13. Glazing is intact and securely fastened in place, if so equipped			NFPA 80 §5.2.4.1(2)
14. Positive Latching hardware operates and secures the door when it is closed			NFPA 80 §5.2.4.2(8)
15. Latch located >=34" high (new) and <=48" high (if installed > 2003)			LSC §7.2.1.5.10
16. Pairs of doors must (a) both have independent unlatching, or auto flush bolt & no latch on inactive and unlatching hardware on active door; (b) Astragel on rated doors & corridor doors;			LSC §7.2.1.5.11
17. Unlatch from egress side (a) with 1 motion; (b) not require use of a key or special knowledge; (c) Obvious operation in all light conditions			LSC §7.2.1.5
18. Max Opening force to (a) release latch is 15 lb; (b) to set door in motion with a closer is 30 lb (new) and (c) to full open is 15 lbs (new); (d) Doors without closers open <= 5 lbs; (e) <=50 lb if installed > 1988			LSC §7.2.1.4.5
19. Auxiliary hardware items that interfere with operation are not installed			NFPA 80 §5.2.4.2(9)
20. "Panic-type" hardware does not have locking device (except Delayed Egress, Acess-Control,			LSC §7.2.1.5.12
21. Outswinging doors must (a) Leave >= 50% of egress width; (b) project <= 7" into width when full open			LSC §7.2.1.4.3
22. No obstruction to full opening & freely closing; Floor is Level on both sides of door			LSC §7.2.1.15.7(1)
23. No wedging or blocking of doors in the open position			NFPA 80 §5.2.13.3
24. Kickplates: ≤ 48"@Haz Rm(per LSC); ≤ 16" hi @other Fire Doors, unless rated (no limit @Smk Doors)			NFPA 80 §6.5.4.3
25. Door Undercut=< 3/4" on Fire Doors; & the minimal needed for operation on Smoke Doors			NFPA 80 §4.8.4.1
26. Power doors: (a) must set in motion with <= 50 lbs; (b) will swing fully open; (c) Has sign "In Emergency, Push to Open"; (d) Min 30" wide; (e) openable on power failure			LSC §7.2.1.9
27. Delayed egress locks must: (a) release in <=15 sec after max 3 sec pushing with <= 15 lb; (b) manual relock only; (c) audible alarm at door; (d) release on power failure, sprinkler, one heat, or 2 smoke detectors ; (e) sign says "Push Until Alarm Sounds, Door Can Be Opened In 15 Seconds" in 1" hi contrasting letters			LSC §7.2.1.6.1
28. Access control must: (a) unlock from egress side via auto sensor; (b) unlock with manual button <=5' from door & Independent from sensor; (c) Signed "Push to Exit"; (d) unlatch on power loss, sprinkler, or fire alarm			LSC §7.2.1.6.2
29. Hardware examined & inoperative parts, or other defects replaced without delay			NFPA 80 §5.2.9

LLSC Form #1BBb

Page 1: Inspection Check Points

Form includes the Mandatory Check Points & Installation requirements of NFPA 80

§5.2.4

Swinging Doors must be inspected for 11 points:

(1) No open holes or breaks in surfaces of the door or frame

(2) Glazing is intact & securely fastened in place, if so equipped

(3) Door assembly in working order; no visible signs of damage

(4) No parts are missing or broken

(5) Door clearances do not exceed clearances 1/8”

(6) Closer is operational so the active door completely closes

(7) If coordinator, inactive leaf closes before active leaf

(8) Latch operates and secures the door when it is closed

(9) Interfering hardware not installed on the door or frame

(10) No field modifications that void the label.

(11) Gaskets and edge seals are inspected to verify their presence and integrity

Free LLSC Form

RATED HINGED DOOR ANNUAL INSPECTION

A — RATED HINGED DOORS

Facility:

Inspector Name	Inspection Date

Inspect doors for ALL check-points below and enter results on page 3; If door fails ANY check, enter # of check-point to indicate problem, describe details & corrective action on page 2 . EVERY rated hinged door must be included on the Report. Use form 1BC for Sliding or Rolling Rated doors.

This checklist contains the minimum inspection requirements of NFPA 80 and the major door requirements of the LSC

	Y N
Documentation is on file that shows the person who performed tests has knowledge & understanding of the operating components of the door being inspected, per NFPA 80-2010,§5.2.3.1	

Visual inspection must be performed from both sides of door prior to testing	NFPA 80 §5.2.4.1
1. No parts are missing or broken	NFPA 80 §5.2.4.1(4)
2. No Damage on Hardware, Door, frame, & hinges secured, aligned	NFPA 80 §5.2.4.1(3)
3. Closer is operational so each doors completely close from the full open position	NFPA 80 §5.2.4.1(6)
4. Automatic Closing doors close under fire conditions (closer, hold-open & smoke detector)	NFPA 80 §5.2.14.2
5. Closer speed set per ADA requirements (min 5 sec from full open to 12° open).	ADA §404.2.7.1
6. Coordinator needed on pairs of single egress doors, so the inactive leaf closes before the active	NFPA 80 §5.2.4.2(7)
7. Rating Labels are on Door & Frame & readable	
8. Door gaps do not exceed clearances 1/8" (astrigal required on pairs of corridor doors > 2003)	NFPA 80 §5.2.4.1(5)
9. No field modifications that void the rating label.	NFPA 80 §5.2.4.2(10)
10. Gaskets and edge seals are inspected to verify their presence and integrity	NFPA 80 §5.2.4.2(11)
11. Surface of Door & Frame does Not have open holes or breaks; no grills w/o damper	NFPA 80 §5.2.4.2(1)
12. Signs must (a) be intact, legible, proper size, (b) Have required wording, (c)No scews	NFPA 80 §4.1.4.2.2
13. Glazing is intact and securely fastened in place, if so equipped	NFPA 80 §5.2.4.1(2)
14. Positive Latching hardware operates and secures the door when it is closed	NFPA 80 §5.2.4.2(8)
15. Latch located >=34" high (new) and <=48" high (if installed > 2003)	LSC §7.2.1.5.10
16. Pairs of doors must (a) both have independent unlatching, or auto flush bolt & no latch on inactive and unlatching hardware on active door; (b) Astragel on rated doors & corridor doors;	LSC §7.2.1.5.11
17. Unlatch from egress side (a) with 1 motion; (b) not require use of a key or special knowledge; (c) Obvious operation in all light conditions	LSC §7.2.1.5
18. Max Opening force to (a) release latch is 15 lb; (b) to set door in motion with a closer is 30 lb (new) and (c) to full open is 15 lbs (new); (d) Doors without closers open <= 5 lbs; (e) <=50 lb if installed > 1988	LSC §7.2.1.4.5
19. Auxiliary hardware items that interfere with operation are not installed	NFPA 80 §5.2.4.2(9)
20. "Panic-type" hardware does not have locking device (except Delayed Egress, Acess-Control,	LSC §7.2.1.5.12
21. Outswinging doors must (a) Leave >= 50% of egress width; (b) project <= 7" into width when full open	LSC §7.2.1.4.3
22. No obstruction to full opening & freely closing; Floor is Level on both sides of door	LSC §7.2.1.15.7(1)
23. No wedging or blocking of doors in the open position	NFPA 80 §5.2.13.3
24. Kickplates: ≤ 48"@Haz Rm(per LSC); ≤ 16" hi @other Fire Doors, unless rated (no limit @Smk Doors)	NFPA 80 §6.5.4.3
25. Door Undercut=< 3/4" on Fire Doors; & the minimal needed for operation on Smoke Doors	NFPA 80 §4.8.4.1
26. Power doors: (a) must set in motion with <= 50 lbs; (b) will swing fully open; (c) Has sign "In Emergency, Push to Open"; (d) Min 30" wide; (e) openable on power failure	LSC §7.2.1.9
27. Delayed egress locks must: (a) release in <=15 sec after max 3 sec pushing with <= 15 lb; (b) manual relock only; (c) audible alarm at door; (d) release on power failure, sprinkler, one heat, or 2 smoke detectors ; (e) sign says "Push Until Alarm Sounds, Door Can Be Opened In 15 Seconds" in 1" hi contrasting letters	LSC §7.2.1.6.1
28. Access control must: (a) unlock from egress side via auto sensor; (b) unlock with manual button <=5' from door & Independent from sensor; (c) Signed "Push to Exit"; (d) unlatch on power loss, sprinkler, or fire alarm	LSC §7.2.1.6.2
29. Hardware examined & inoperative parts, or other defects replaced without delay	NFPA 80 §5.2.9

LLSC Form #1BBb

Form also includes The Mandatory Door Requirements of NFPA 101

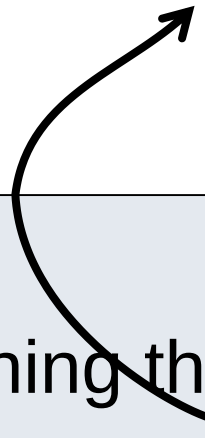
These are more commonly found and cited than the NFPA 80 checks

4. MAKE IMMEDIATE REPAIRS

NFPA 80 uses words like:

"Immediate Repair"

"Without Delay"



Citations Possible:

- Anything that is NOT fixed when a surveyor visits
- There was unexcused delay, even if repaired

STEP by STEP INSPECTION

Via PHOTOS FROM ACTUAL INSPECTIONS

Welcome to the Feb 2018

WHEA Lunch & Learn

Lauzon Life Safety Consulting

Healthcare Survey Protection

Your Protective Shield in the Code War

Step-By Step

LLSC Form #1BBb

RATED HINGED DOOR ANNUAL INSPECTION

A — RATED HINGED DOORS

Facility:

Inspector Name	Inspection Date

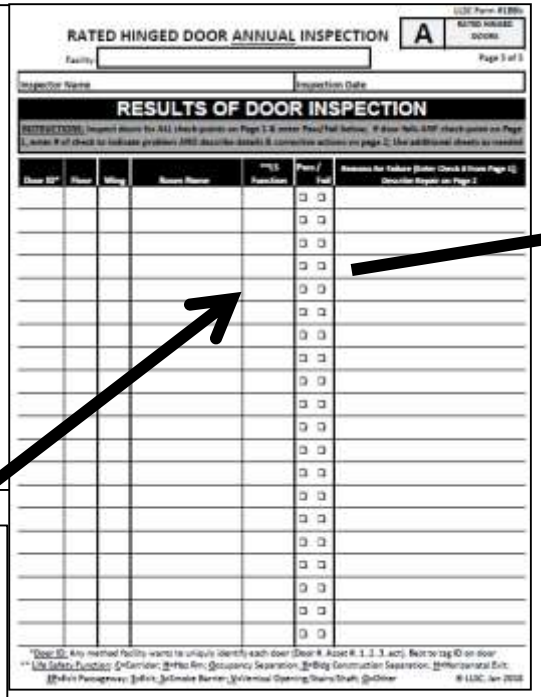
Inspect doors for ALL check-points below and enter results on page 3; If door fails ANY check, enter # of check-point to indicate problem, describe details & corrective action on page 2 . EVERY rated hinged door must be included on the Report. Use form 1BC for Sliding or Rolling Rated doors.

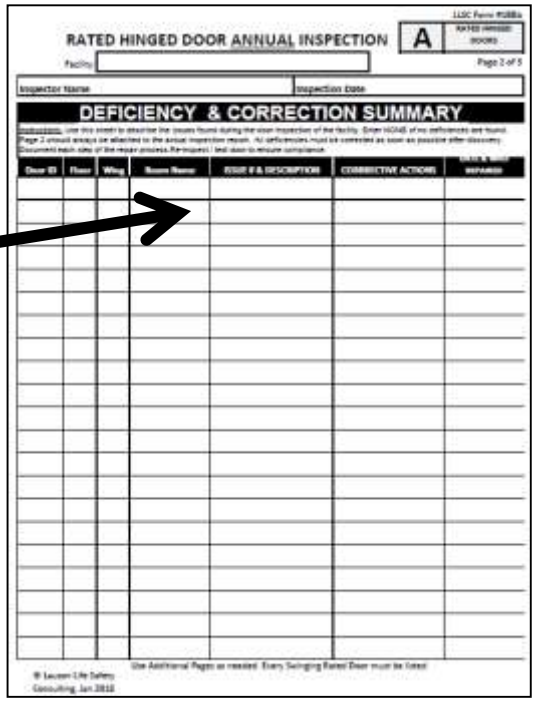
This checklist contains the minimum inspection requirements of NFPA 80 and the major door requirements of the LSC

The Basics:

- Facility Name
- Inspector Signature
- Inspection Date (completion)

- Show & Follow Instructions





Sheet 3: **Document Inspections**

RESULTS OF DOOR INSPECTION

INSTRUCTIONS: Inspect doors for ALL check-points on Page 1 & enter Pass/Fail below; If door fails ANY check-point on Page 1, enter # of check to indicate problem AND describe details & corrective actions on page 2; Use additional sheets as needed

Door ID*	Floor	Wing	Room Name	**LS Function	Pass / Fail	Reasons for Failure (Enter Check # from Page 1); Describe Repair on Page 2
					☐ ☐	

1. List EACH door with a unique identifier

- Any method facility choses
  (Door # from plan, Asset #, Bar Code, etc)
- Best to place ID on door/frame
  (don't cover the rating label)

Sheet 3: **Document Inspections**

RESULTS OF DOOR INSPECTION

INSTRUCTIONS: Inspect doors for ALL check-points on Page 1 & enter Pass/Fail below; If door fails ANY check-point on Page 1, enter # of check to indicate problem AND describe details & corrective actions on page 2; Use additional sheets as needed

Door ID*	Floor	Wing	Room Name	**LS Function	Pass / Fail	Reasons for Failure (Enter Check # from Page 1); Describe Repair on Page 2
					☐ ☐	

2. Indicate its Life Safety function

3. Indicate if door complied with ALL checks

4. If it failed ANY check, indicate which one & how/if fixed

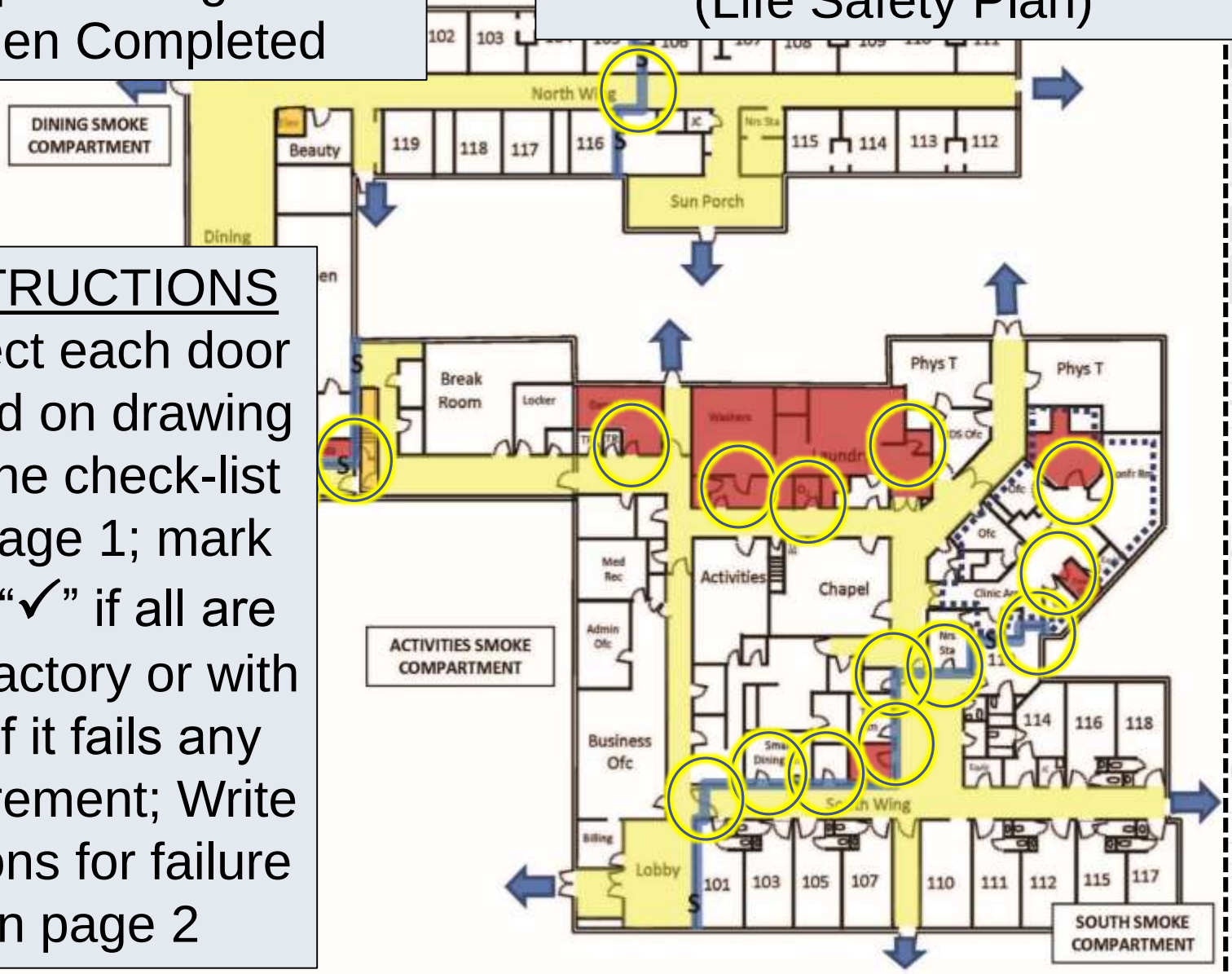
** Life Safety Function: **C**=Corridor; **H**=Haz Rm; **O**ccupancy Separation; **B**=Bldg Construction Separation; **H**=Horizonatal Exit; **EP**=Exit Passageway; **E**=Exit; **S**=Smoke Barrier; **V**=Vertical Opening/Stairs/Shaft; **O**=Other

Step-By Step

ALTERNATIVE METHOD

(Life Safety Plan)

- Facility Name
- Inspector Signature
- When Completed



INSTRUCTIONS

Inspect each door circled on drawing per the check-list on page 1; mark with "✓" if all are satisfactory or with "**X**" if it fails any requirement; Write reasons for failure on page 2

Step-By Step

Sheet 2:
Document Repairs

DEFICIENCY & CORRECTION SUMMARY

Instructions: Use this sheet to describe the issues found during the door inspection of the facility. Enter NONE of no deficiences are found. Page 2 should always be attached to the actual inspection report. All deficiencies must be corrected as soon as possible after discovery. Document each step of the repair process.Re-inspect / test door to ensure compliance.

Door ID	Floor	Wing	Room Name	ISSUE # & DESCRIPTION	CORRRECTIVE ACTIONS	DATE & WHO REPAIRED

1. List EACH door with a unique identifier

2. Indicate What Check(s) Were failed

3. Indicate what was done to correct the issue

4. Indicate When the repair was fully complete

Step-By Step

Visual inspection must be performed from both sides of door prior to testing	NFPA 80 §5.2.4.1
1. No parts are missing or broken	NFPA 80 §5.2.4.1(4)
2. No Damage on Hardware, Door, frame, & hinges secured, aligned	NFPA 80 §5.2.4.1(3)
3. Closer is operational so each doors completely close from the full open position	NFPA 80 §5.2.4.1(6)
4. Automatic Closing doors close under fire conditions (closer, hold-open & smoke detector)	
5. Closer speed set per ADA requirements (min 5 sec from full open to 12° open).	
6. Coordinator needed on pairs of single egress doors, so the inactive leaf closes before the active	
7. Rating Labels are on Door & Frame & readable	
8. Door gaps do not exceed clearances 1/8" (astrigal required on pairs of corridor doors > 2003)	
9. No field modifications that void the rating label.	
10. Gaskets and edge seals are inspected to verify their presence and integrity	
11. Surface of Door & Frame does Not have open holes or breaks; no grills w/o damper	
12. Signs must (a) be intact, legible, proper size, (b) Have required wording, (c)No scews	
13. Glazing is intact and securely fastened in place, if so equipped	
14. Positive Latching hardware operates and secures the door when it is closed	NFPA 80 §5.2.4.2(8)
15. Latch located >=34" high (new) and <=48" high (if installed > 2003)	LSC §7.2.1.5.10
16. Pairs of doors must (a) both have independent unlatching, or auto flush bolt & no latch on inactive and unlatching hardware on active door; (b) Astragel on rated doors & corridor doors;	LSC §7.2.1.5.11
17. Unlatch from egress side (a) with 1 motion; (b) not require use of a key or special knowledge; (c) Obvious operation in all light conditions	LSC §7.2.1.5
18. Max Opening force to (a) release latch is 15 lb; (b) to set door in motion with a closer is 30 lb (new) and (c) to full open is 15 lbs (new); (d) Doors without closers open <= 5 lbs; (e) <=50 lb if installed >	
19. Auxiliary hardware items that interfere with operation are not installed	
20. "Panic-type" hardware does not have locking device (except Delayed Egress, Acess-Control,	
21. Outswinging doors must (a) Leave >= 50% of egress width; (b) project <= 7" into width when full op	
22. No obstruction to full opening & freely closing; Floor is Level on both sides of door	
23. No wedging or blocking of doors in the open position	NFPA 80 §5.2.13.3
24. Kickplates: ≤ 48"@Haz Rm(per LSC); ≤ 16" hi @other Fire Doors, unless rated (no limit @Smk Doors)	NFPA 80 §6.5.4.3
25. Door Undercut=< 3/4" on Fire Doors; & the minimal needed for operation on Smoke Doors	NFPA 80 §4.8.4.1
26. Power doors: (a) must set in motion with <= 50 lbs; (b) will swing fully open; (c) Has sign "In Emergency, Push to Open"; (d) Min 30" wide; (e) openable on power failure	LSC §7.2.1.9
27. Delayed egress locks must: (a) release in <=15 sec after max 3 sec pushing with <= 15 lb; (b) manual relock only; (c) audible alarm at door; (d) release on power failure, sprinkler, one heat, or 2 smoke detectors ; (e) sign says "Push Until Alarm Sounds, Door Can Be Opened In 15 Seconds" in 1" hi contrasting letters	LSC §7.2.1.6.1
28. Access control must: (a) unlock from egress side via auto sensor; (b) unlock with manual button <=5' from door & Independent from sensor; (c) Signed "Push to Exit"; (d) unlatch on power loss, sprinkler, or fire alarm	LSC §7.2.1.6.2
29. Hardware examined & inoperative parts, or other defects replaced without delay	NFPA 80 §5.2.9

We're going to look at each of the Check-Points (via photos)

In the same sequence as the Check List

Use a Walk-Around "Cheat-Sheet" to recall the 29 Key Points

DOOR INSPECTION KEY-POINTS	
Inspect BOTH Sides	
1. No Missing Parts 2. No Damage 3. Closer 4. Auto Closer 5. ADA Speed 6. Coordinator 7. Rating Label 8. Gaps 9. Field Modify 10.Gaskets/Seals 11.Surface Conditions 12.Approved Signs 13.Glazing 14.Door Latching 15.Latch Height	16. Pair Latching 17.Door Unlatching 18.Opening Force 19.Auxiliary Hardware 20."Panic" Security 21.Door Obstructions 22.Free Door Swing 23.Door Blocking 24.Kick plate 25.Undercut 26.Powered Doors 27.Delayed Egress 28.Access Control 29.Immediate Repair

OVERALL CHECK-POINT

Checkpoint #

1

NO MISSING PARTS

No parts are missing or broken

Missing parts is a general overall key point to keep in mind for all the remaining checks

OVERALL CHECK-POINT

Checkpoint #

1

NO Missing Parts

Missing Screw on Closer

OVERALL CHECK-POINT

Checkpoint #

1

NO Missing Parts

Missing Screws on Hinge

OVERALL CHECK-POINT

Checkpoint #

1

NO Missing Parts

Missing Key Core on Latch

OVERALL CHECK-POINT

Checkpoint #

1

NO Missing Parts

Missing Bottom Flush Latch

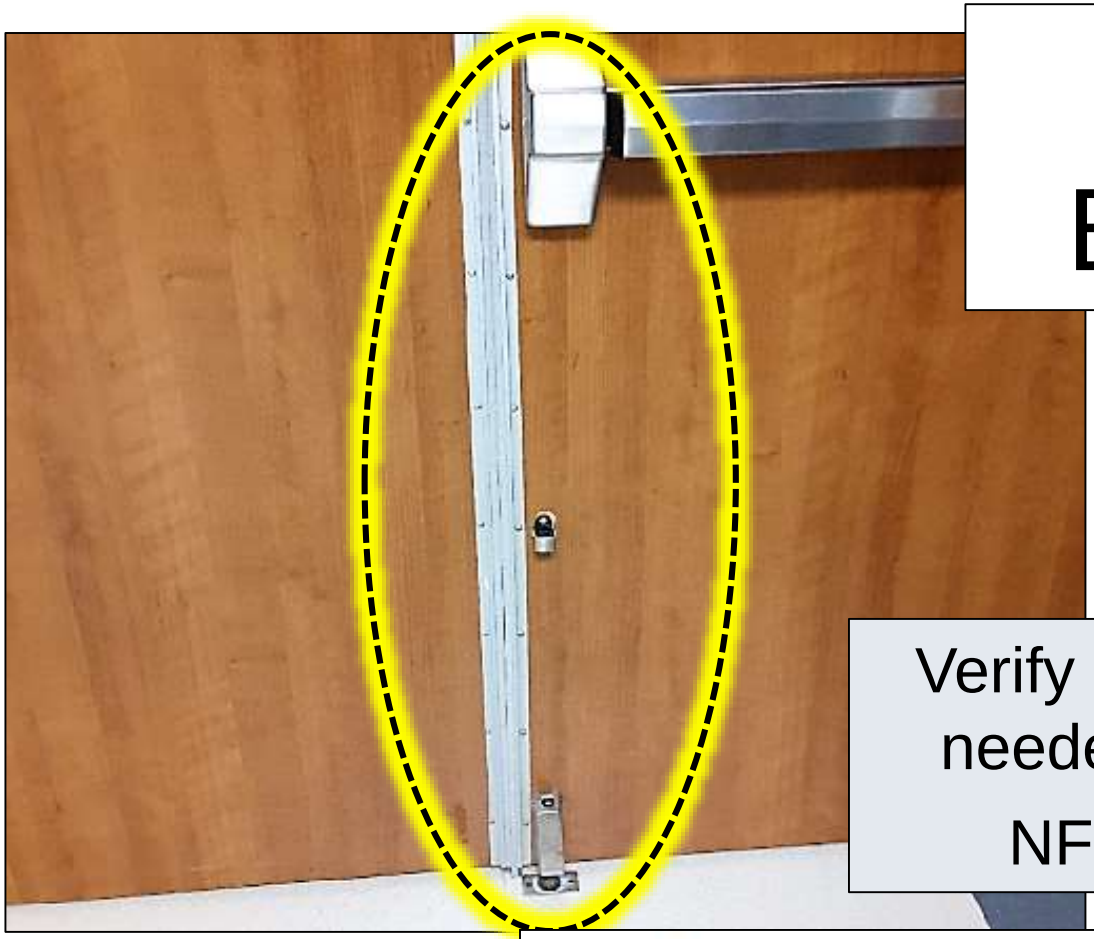
NFPA 80-Inspect

OVERALL CHECK-POINT

Checkpoint #

1

NO Missing Parts



Missing Bottom Rod

Verify if Multi-Point latching is needed (Check door listing)

NFPA 80-2010, 7.4.3.3

7.4.3.3* Hinges and Latches, Number and Length. The number and length of both the hinges and the latches shall be in accordance with the manufacturer's label service procedure and individual published listing.

OVERALL CHECK-POINT

Checkpoint #
1

NO Missing Parts

Indicators of a Missing Bottom Rod

- Floor Strike w/o bottom rod

"Something has changed from original rated install"

OVERALL CHECK-POINT

Checkpoint #

2

NO DAMAGE

Door assembly in working order; no visible signs of damage

Damage is a general overall key point to keep in mind for all the remaining checks

OVERALL CHECK-POINT

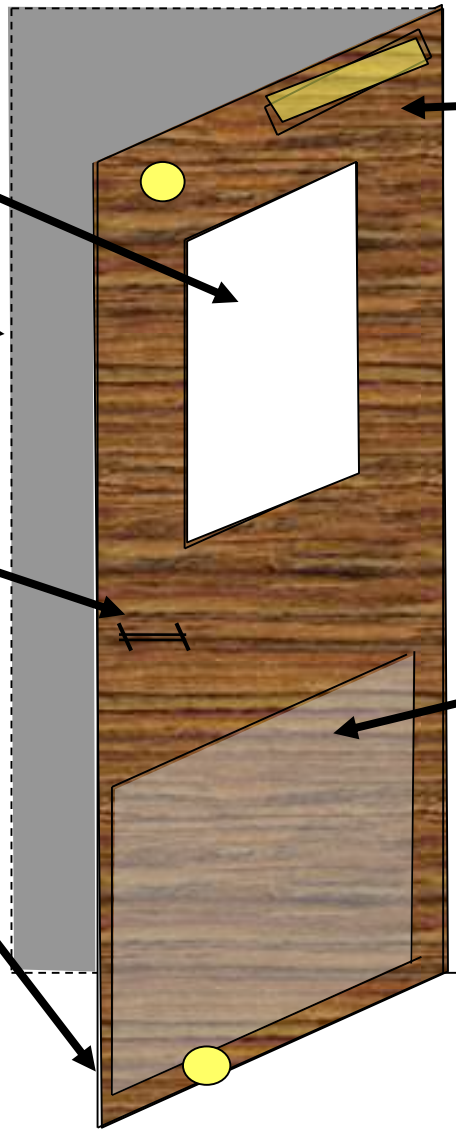
Checkpoint #

2

No Damage

Bent Bottom Rod

NOW we get started Inspecting in Ernest



WINDOW:

STOPS

LATCH & LOCK-

UNDERCUT

CLOSER – DOOR COORINATOR

MAG-HOLD-OPEN

DOOR INSPECTION KEY-POINTS

Inspect BOTH Sides

1. No Missing Parts
2. No Damage
3. Closer
4. Auto Closer
5. ADA Speed
6. Coordinator
7. Rating Label
8. Gaps
9. Field Modify
10. Gaskets/Seals
11. Surface Conditions
12. Approved Signs
13. Glazing
14. Door Latching
15. Latch Height
16. Pair Latching
17. Door Unlatching
18. Opening Force
19. Auxiliary Hardware
20. “Panic” Security
21. Door Obstructions
22. Free Door Swing
23. Door Blocking
24. Kick plate
25. Undercut
26. Powered Doors
27. Delayed Egress
28. Access Control
29. Immediate Repair

Hinged DOOR INSPECTION

Checkpoint #

3

CLOSER is OPERATING

Closer is operational so the door completely closes

Hinged DOOR INSPECTION

Checkpoint #

3

Closer Operation

Missing Closer

Hinged DOOR INSPECTION

Checkpoint #

3

Closer Operation

Closer must have enough pull force to latch to retract

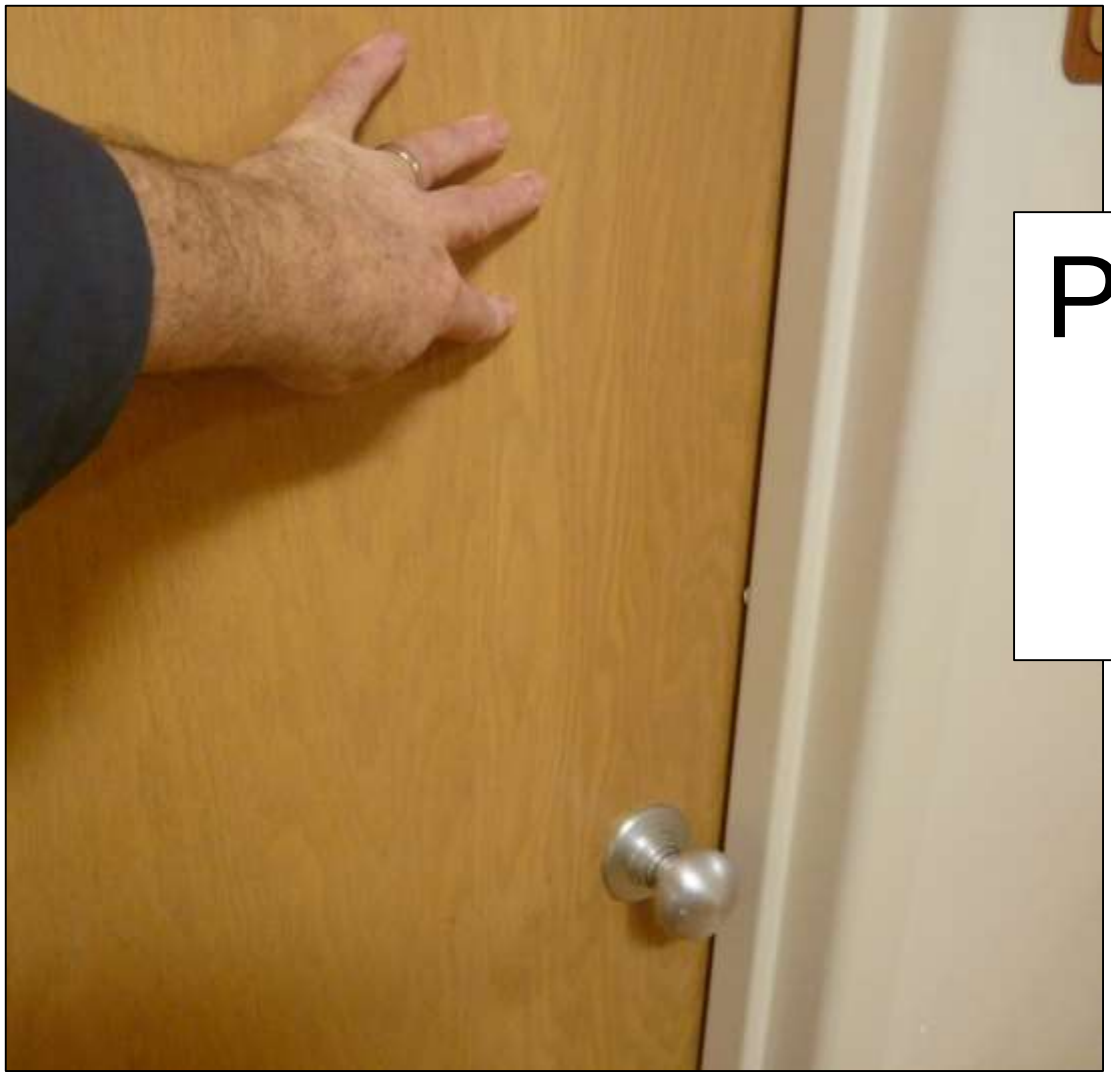
Especially check WOOD doors, which tend to expand & worp

Hinged DOOR INSPECTION

Checkpoint #

3

Closer Operation



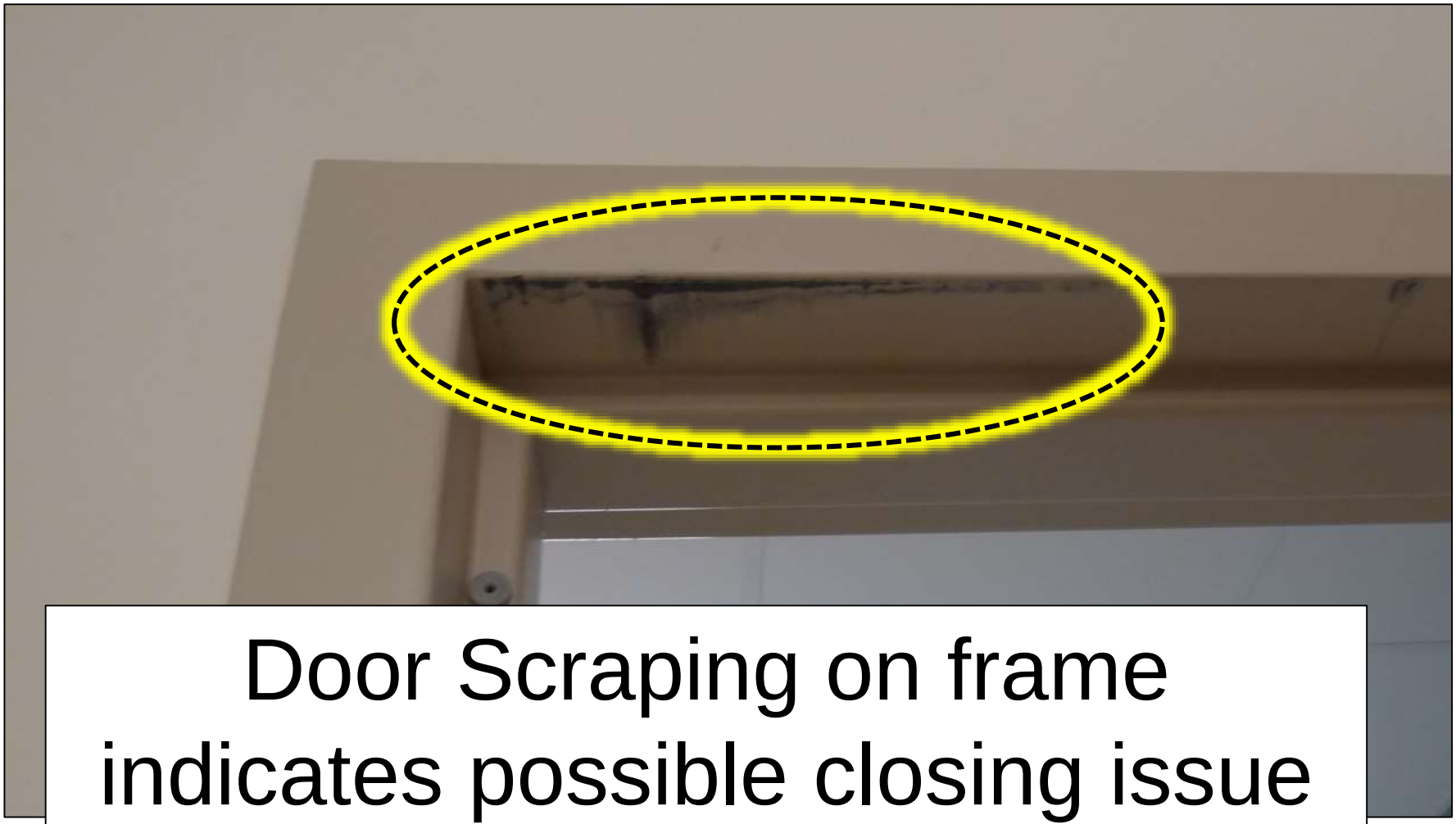
Push (or Pull) to confirm Latching

Hinged DOOR INSPECTION

Checkpoint #

3

Closer Operation



Door Scraping on frame indicates possible closing issue

Hinged DOOR INSPECTION

Checkpoint #

3

Closer Operation

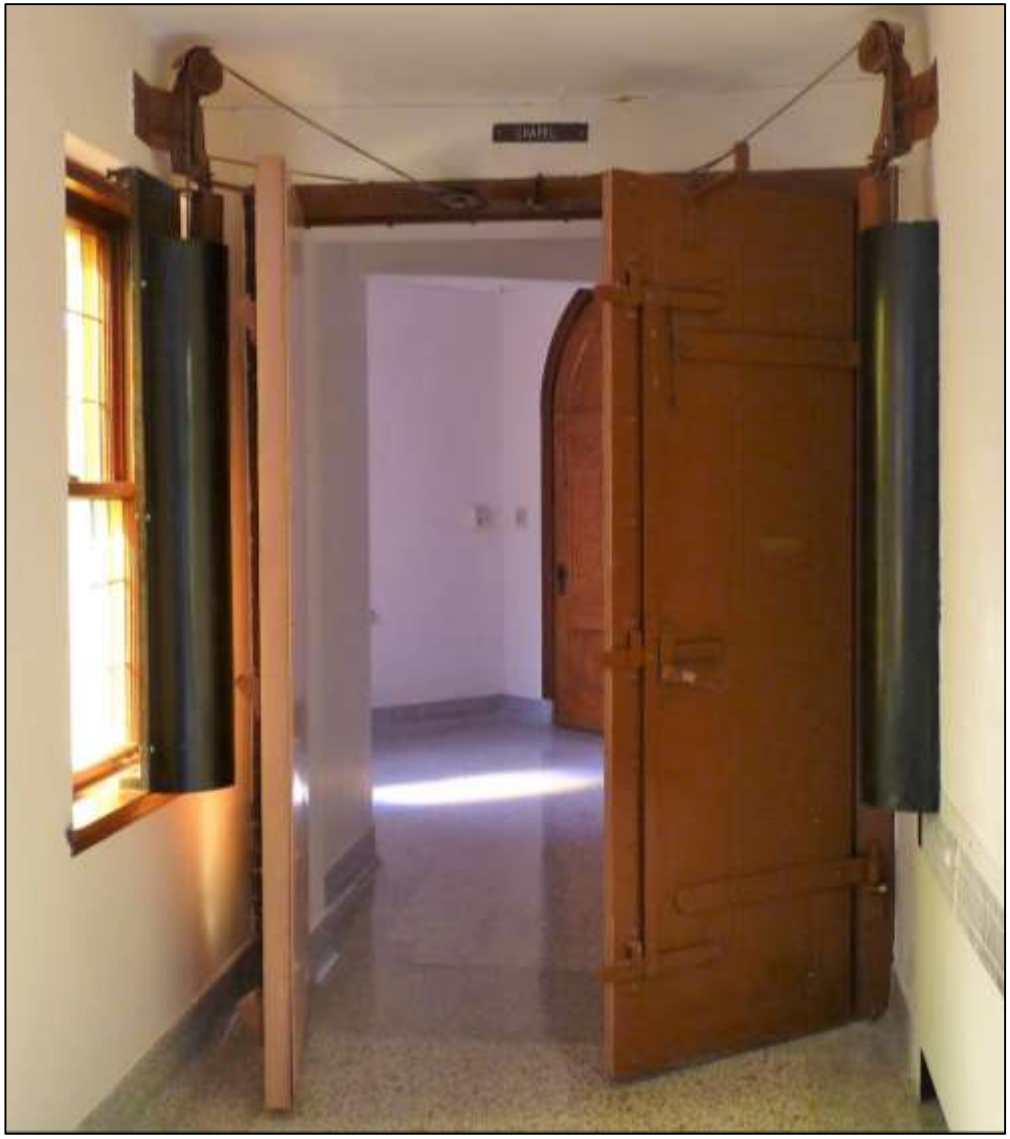
Door Rub on Floor Mat prevents door closing

Hinged DOOR INSPECTION

Checkpoint #

3

Closer Operation



Test
Operation
Old Style

Checkpoint #

4

AUTO-CLOSE OPERATING

Automatic Closing doors close under fire conditions, with properly installed closer, mag hold-open, and smoke detector

Hinged DOOR INSPECTION

Checkpoint #

4

Auto Closing

Automatic-closing fire doors

a. Self-Closing Device
b. Hold-Open Device
c. Smoke Detector




Hinged DOOR INSPECTION

Checkpoint #

4

a. Closer

Confirm Closer fully closes the door from full open position

Hinged DOOR INSPECTION

Checkpoint #

4

b. Hold-Open

Confirm Hold-Open was Listed with use of a Chain

Hinged DOOR INSPECTION

Checkpoint #

4

b. Hold-Open

Do not custom make Hold-Open Extension Arms

Hinged DOOR INSPECTION

Checkpoint #

4

b. Hold-Open

Do not custom make Hold-Open Extension Arms

Hinged DOOR INSPECTION

Checkpoint #
4

c. Smoke Detector

Stand in Door Opening & Look on both sides

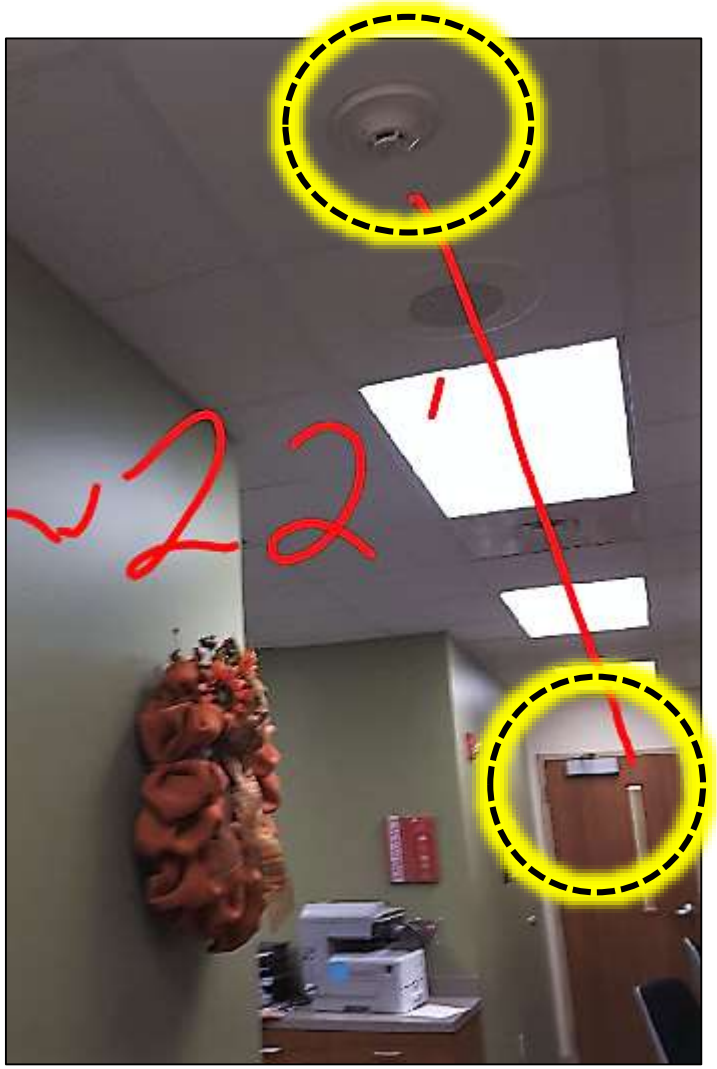
MUST have Smoke Detector

Refer to NFPA 72-2010, 17.7.5.6

Hinged DOOR INSPECTION

Checkpoint #
4

c. Smoke Detector



Measure Distance of Detector to Door

(Situation #1)

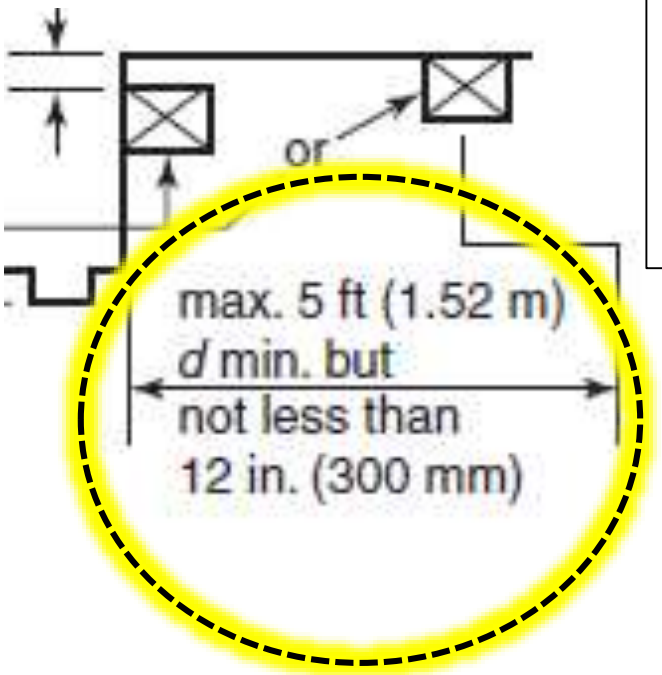
If full area detection on both sides: ≤15' & max 30' oc

Refer to NFPA 72-2010, 17.7.5.6.1 and 17.7.3

Hinged DOOR INSPECTION

Checkpoint #
4

c. Smoke Detector



(Situation #2)

If <u>Stand-Alone</u> detector:

Min 1’ and ≤ 5’

Refer to NFPA 72-2010, 17.7.5.6.5.1

Hinged DOOR INSPECTION

Checkpoint #
4

c. Smoke Detector

(Situation #2)

If **Stand-Alone** detector:

Must Also Measure Height of Door Header

- Detector needed on any side >24”

Refer to NFPA 72-2010, 17.7.5.6.5.1

Hinged DOOR INSPECTION

Checkpoint #
4

c. Smoke Detector

(Situation #2)

If <u>Stand-Alone</u> detector:

Soffits can hide the “true” header height

Refer to NFPA 72-2010, 17.7.5.6.5.1

Hinged DOOR INSPECTION

Checkpoint #
4

c. Smoke Detector

Must test that Detector actually closes the door

Coordinate door inspection with the annual fire alarm inspection

(they must coincide)

Checkpoint #

5

CLOSER SPEED

Closer speed set per ADA requirements (minimum 5 sec from full open to 12” open)

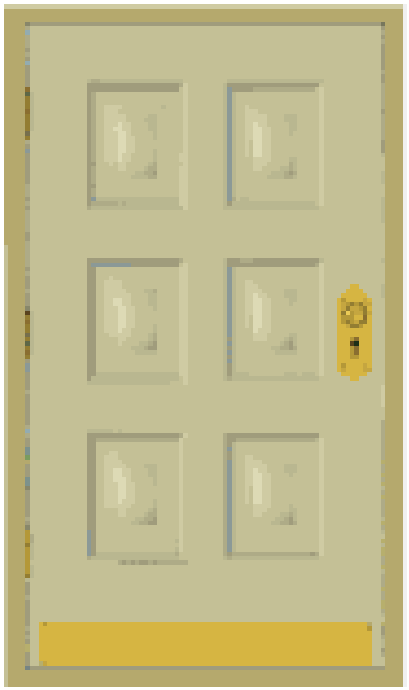
Hinged DOOR INSPECTION

Checkpoint #

5

ADA Sped

Min 5 sec to close from full open



Checkpoint #

6

COORINATOR Is OPERATING

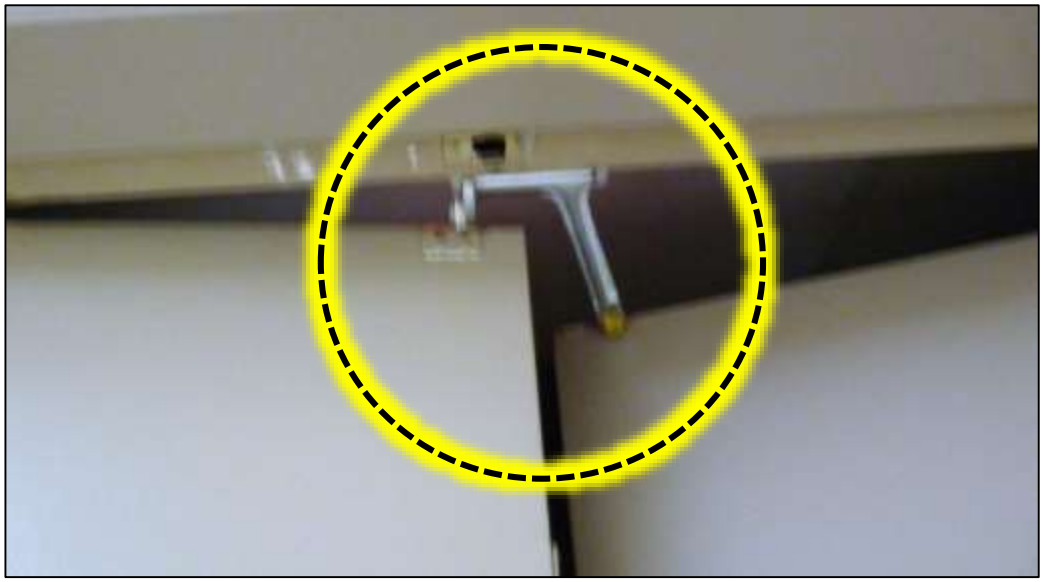
Coordinator is needed on pairs of single egress doors, so the inactive leaf closed before the active leaf

Hinged DOOR INSPECTION

Checkpoint # 6

NFPA 80 Requirement

6.4.1.2.1 Where there is an astragal or projecting latch bolt that prevents the inactive door from closing and latching before the shall be used.



50% Failure Rate

Hinged DOOR INSPECTION

Checkpoint #

6

Test Coordinator

Step 1

Close Active Door so Rests on Coordinator Hold-Open Arm

Hinged DOOR INSPECTION

Checkpoint #

6

Test Coordinator

Step 2

Release Inactive Door so it pushes against coordinator mechanism

Hinged DOOR INSPECTION

Checkpoint #

6

Test Coordinator

Step 3

Pull on door to check for positive self latching

Checkpoint #

7

RATING LABELS

Signs that are required to be placed on doors must be intact, legible, properly sized and have the required wording

Hinged DOOR INSPECTION

Checkpoint #

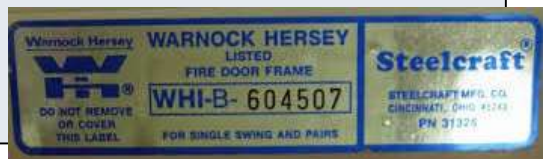
7

Rating Labels

LABELS

- Provide visible proof that the components are the same as those that were tested by independent laboratories for use on fire-rated doors

- Labels are applied at the factory before the door assembly components are shipped



- Labeled door assemblies are only valid when all required components are installed and function properly

Hinged DOOR INSPECTION

Checkpoint #

7

Rating Labels

Must be on Both Door & Frame

Hinged DOOR INSPECTION

Checkpoint #

7

Rating Labels

- Must be fully readable

Hinged DOOR INSPECTION

Checkpoint #

7

a. Door Labels

If there's no label on the Door Jamb:

1. May be on the header
2. May be excepted from rating

Hinged DOOR INSPECTION

Checkpoint #

7

a. Door Labels

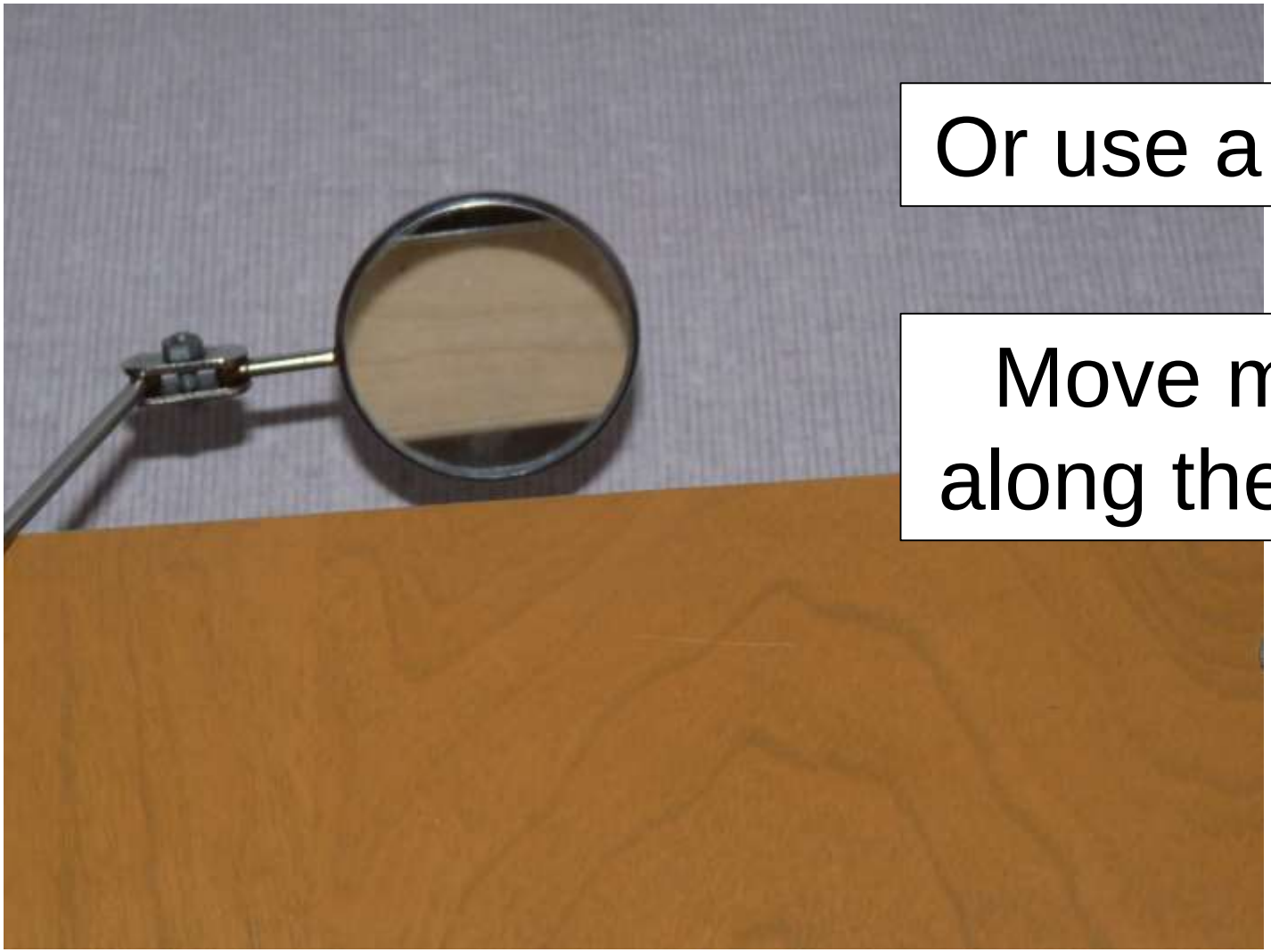
Check by feeling for the label on the header

Hinged DOOR INSPECTION

Checkpoint #

7

a. Door Labels



Or use a mirror

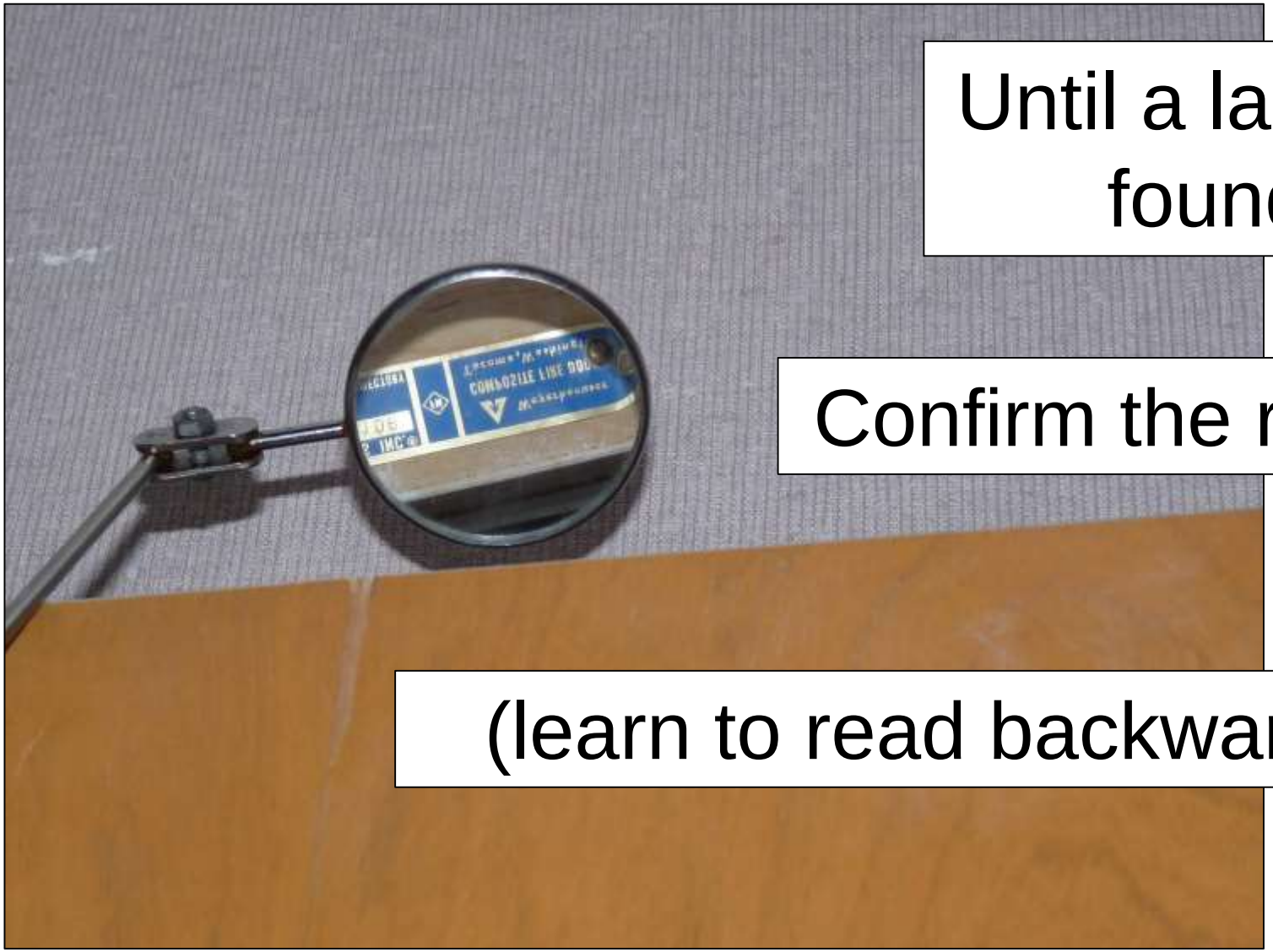
Move mirror along the head

Hinged DOOR INSPECTION

Checkpoint #

7

a. Door Labels



Until a label is found

Confirm the rating

(learn to read backwards)

Hinged DOOR INSPECTION

Checkpoint #

7

a. Door Labels

Beware of Continuous Hinges That Cover Labels

Hinged DOOR INSPECTION

Checkpoint #

7

a. Door Labels

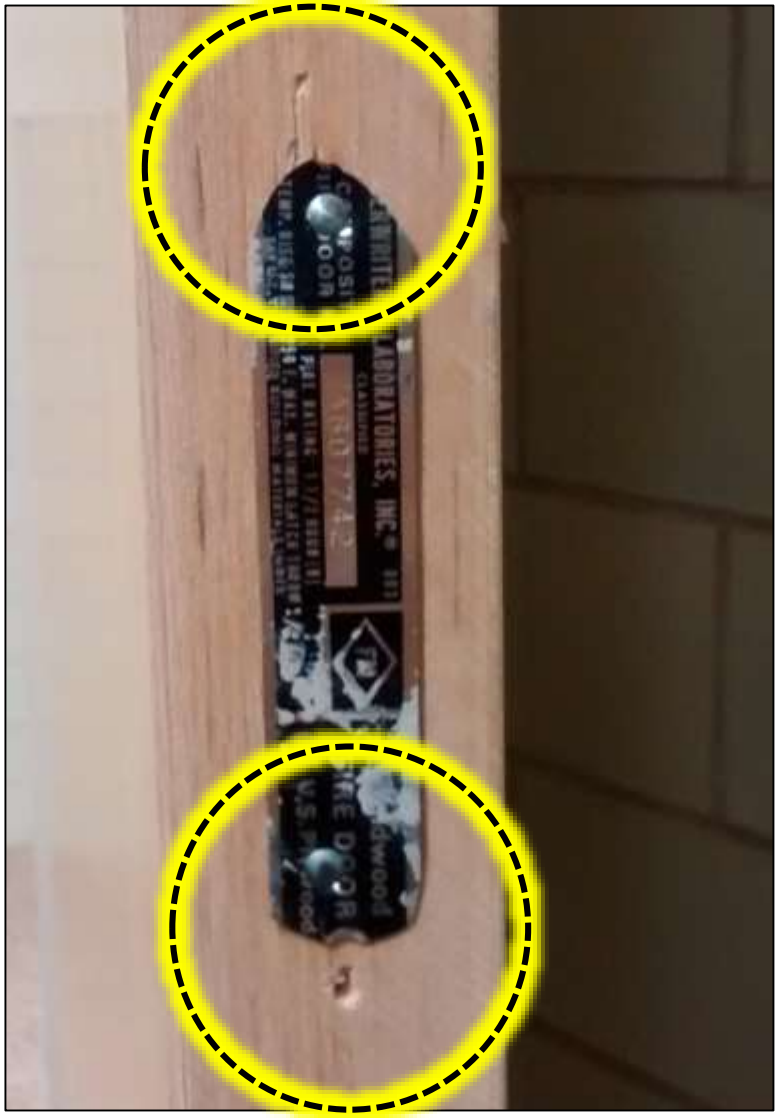
Added note may help, but surveyors do NOT need to accept instead of seeing the label

Hinged DOOR INSPECTION

Checkpoint #

7

a. Door Labels



Label Cannot be removed & reapplied

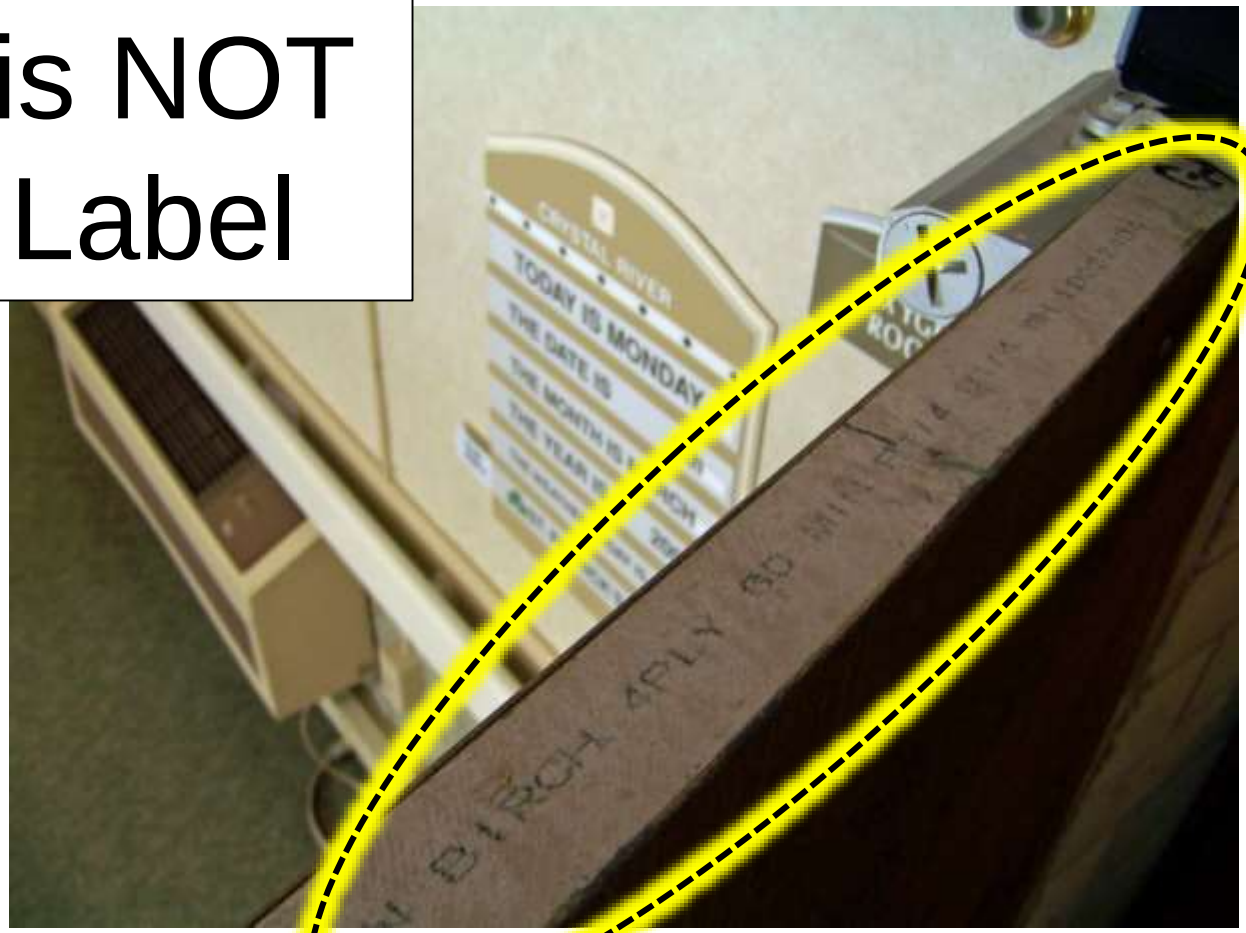
Or Cut

Hinged DOOR INSPECTION

Checkpoint #
7

a. Door Labels

Manufacturer Door info is NOT a Rating Label



Hinged DOOR INSPECTION

Checkpoint #

7

a. Door Labels

Read the Fine Print

Test did NOT include the Hose Stream

Hinged DOOR INSPECTION

Checkpoint #

7

a. Door Labels

Read the Fine Print

Requires use of Panic or Fire Exit Device

Hinged DOOR INSPECTION

Checkpoint #

7

b. Frame Labels

If there's no label on the Frame:

In the past Frames & Doors were rated as an Assembly so Frame may NOT have been labels

(TJC accepts, CMS does not)

Checkpoint #

7

b. Frame Labels

Stamped into Frame

Hinged DOOR INSPECTION

Checkpoint #

7

b. Frame Labels

"Embossed"
but
Painted

Hinged DOOR INSPECTION

Checkpoint #

7

b. Frame Labels

Painted,

Not

Readable

Hinged DOOR INSPECTION

Checkpoint #

7

b. Frame Labels

Field Inspected

Checkpoint #

8

FRAME/DOOR GAPS

(a) Frame Gaps per CMS memo

(b) Door Gaps do not exceed the maximum clearance

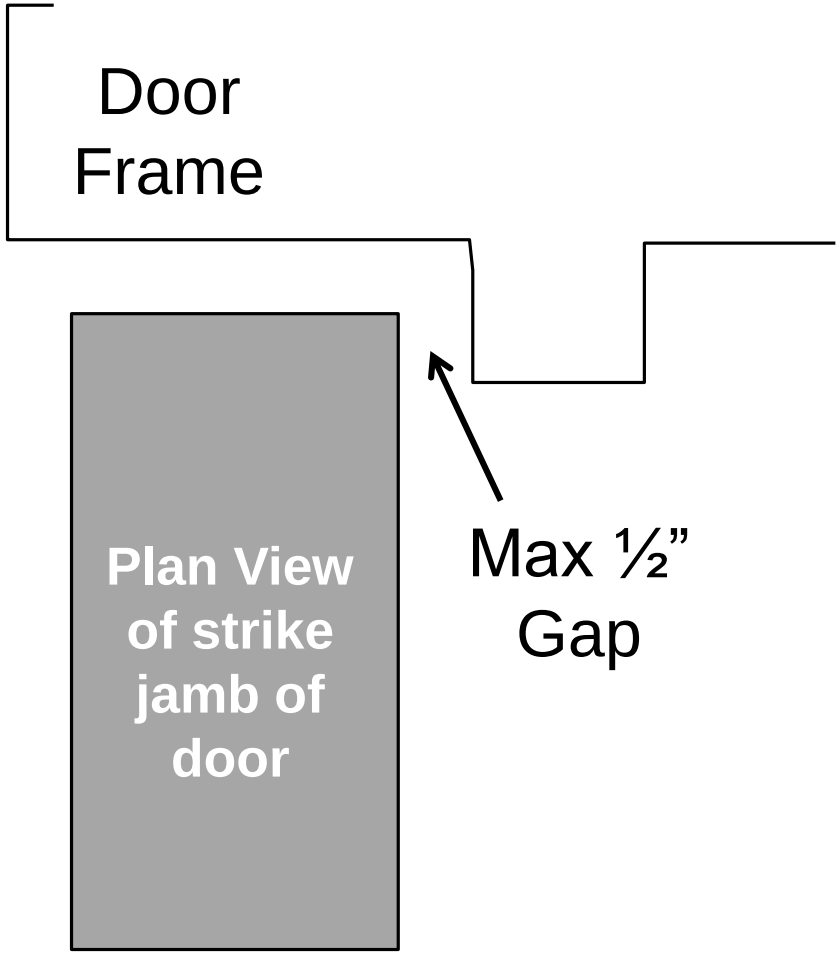
(c) Astragal required on corridor doors since 2003)

Hinged DOOR INSPECTION

Checkpoint #
8

a. Frame Gap

CMS Letter 07-18 on Frame Gaps

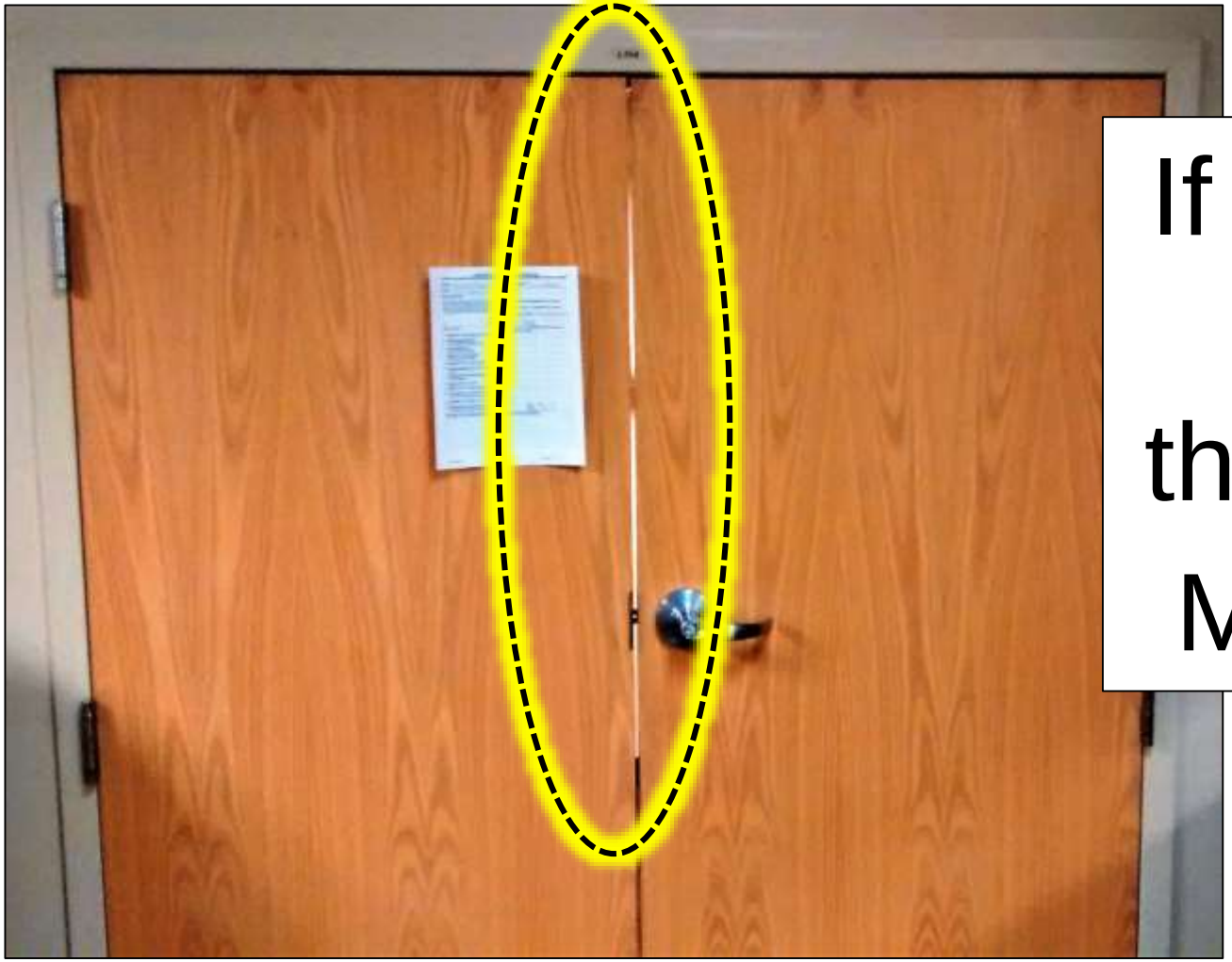


Hinged DOOR INSPECTION

Checkpoint #

8

b. Door Gap



If you can see through it, Measure

Hinged DOOR INSPECTION

Checkpoint #

8

b. Door Gap

Measure on the ”pull’ side of the door

Checkpoint #

8

c. Astragal

NFPA 80 Astragal Requirements

6.4.1.2.1 Where there is an astragal or projecting latch bolt that prevents the inactive door from closing and latching before the active door closes and latches, a coordinating device shall be used.

6.4.7.2* Pairs of doors that require astragals shall have at least one attached in place to project approximately 3⁄4 in. (19 mm) or as otherwise indicated in the individual published listings.

Hinged DOOR INSPECTION

Checkpoint #

8

c. Astragal

Single Swing:

Needs

- Astragal
- Coordinator

Hinged DOOR INSPECTION

Checkpoint #

8

c. Astragal

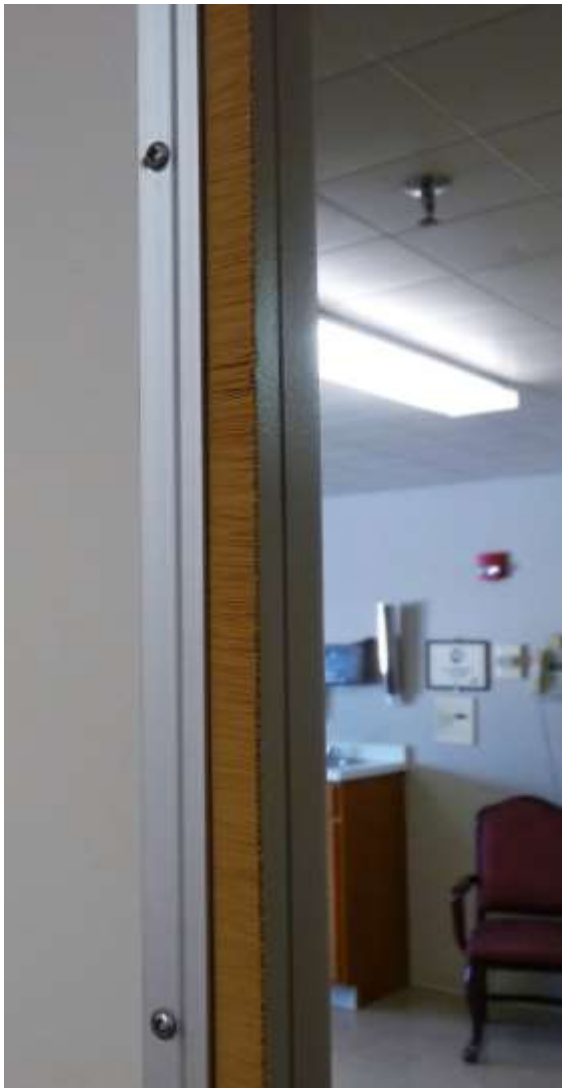
Confirm the Astragal actually closes the gap

Hinged DOOR INSPECTION

Checkpoint #

8

c. Astragal



Must confirm that rating of brush astragal matches the door rating

Testing to 4L10-UL is not enough. Should obtain test report by an independent listing agency that shows the duration of the test. Do not rely on sales literature.

Hinged DOOR INSPECTION

Checkpoint #

8

c. Astragal

Must confirm rating of vinyl astragal matches the door rating

Testing to UL10C is not enough. Should obtain test report by an independent listing agency that shows the duration of the test. Do not rely on sales literature.

Checkpoint #

9

FIELD MODIFICATIONS

No field modifications that void the label.

▲ **5.1.5.2 Field Modifications.**

5.1.5.2.1 In cases where a field modification to a fire door or a fire door assembly is desired, the laboratory with which the product or component being modified is listed shall be contacted and a description of the modifications shall be presented to that laboratory.

5.1.5.2.2 If the laboratory finds that the modifications will not compromise the integrity and fire resistance capabilities of the assembly, the modifications shall be permitted to be authorized by the laboratory without a field visit from the laboratory.

Hinged DOOR INSPECTION

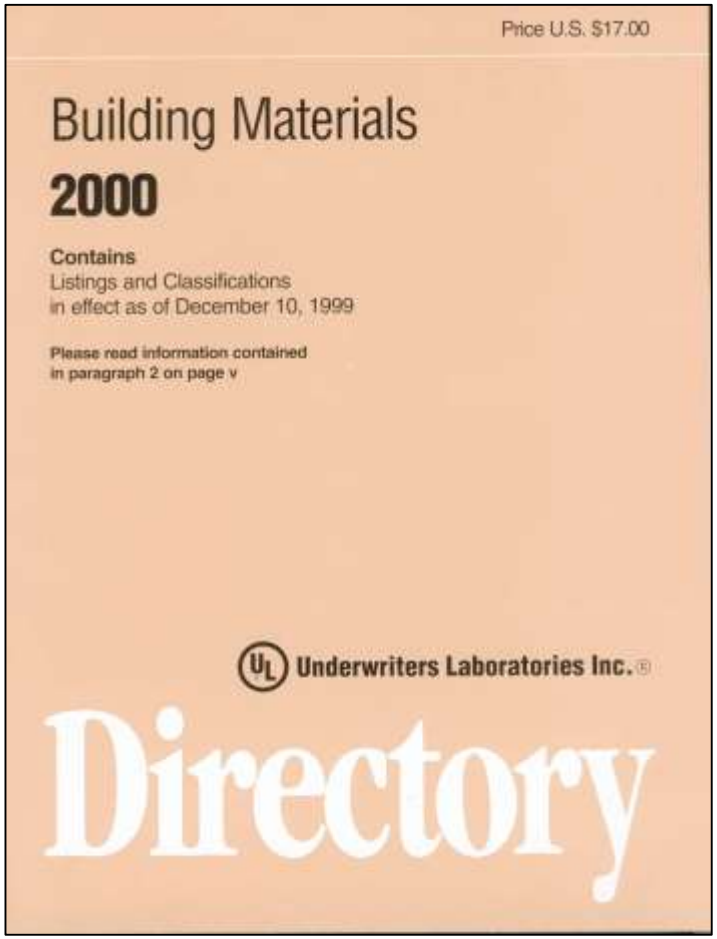
Checkpoint #

9

Field Modifications

If you field modify:

- Confirm ok with Door/Frame Listing, or
- Field certify




Intertek

Email: [redacted]

Intertek Project/Report Number: G101970370

Enclosed is a copy of the report issued on the following field inspection project:

Jobsite: [redacted]

DESCRIPTION OF PROJECT: Field Inspection of Fire Doors and/or Fire Door Frames - openings all compliant
OPENING IDENTIFICATION(S): VARIOUS - Please refer to enclosed report
REQUIREMENTS (if any) FOR RE-INSPECTION BY INTERTEK AND/OR AUTHORITY HAVING JURISDICTION: None

This report completes our work on this project. Please forward a copy of this report to the local authority having jurisdiction - if applicable.

Thank you for allowing Intertek to be of service. Please feel free to contact us if you have any questions regarding this inspection, or if we can be of assistance on future projects.

Report Reviewed and Issued by:

Hinged DOOR INSPECTION

Checkpoint #
9

Field Modifications

NEVER MODIFY* a listed door or frame

Typical Modifications:

- Changing Closer
- Changing Latch
- Installing Mag Lock
- Installing Elec Strike
- Screwed Signs

- Changing Hinges
- Adding Deadbolts
- Adding Combo
- Adding Auto Open
- Make-shift Repairs

MOST violated Life Safety “Rule”

Hinged DOOR INSPECTION

Checkpoint #
9

a. Door Modification

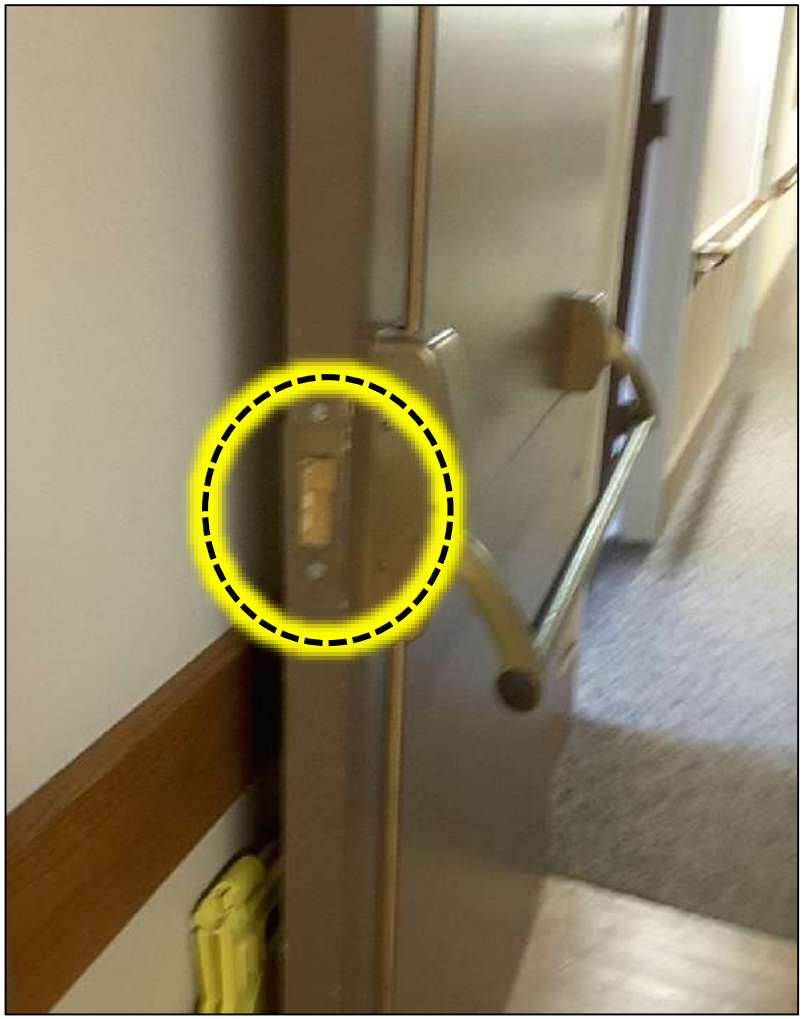
Combo Locks can Void Label

- If Lock Model is not Listed by Door Mfr
- If Lock itself is not listed for the door rating

Hinged DOOR INSPECTION

Checkpoint # 9

a. Door Modifications



Convert Method of Latching

Hinged DOOR INSPECTION

Checkpoint # 9

a. Door Modifications

Half-Surface Hinges can Void Door Label

- If not shown on door mfr Listing Sheet or Field Applied

Hinged DOOR INSPECTION

Checkpoint #
9

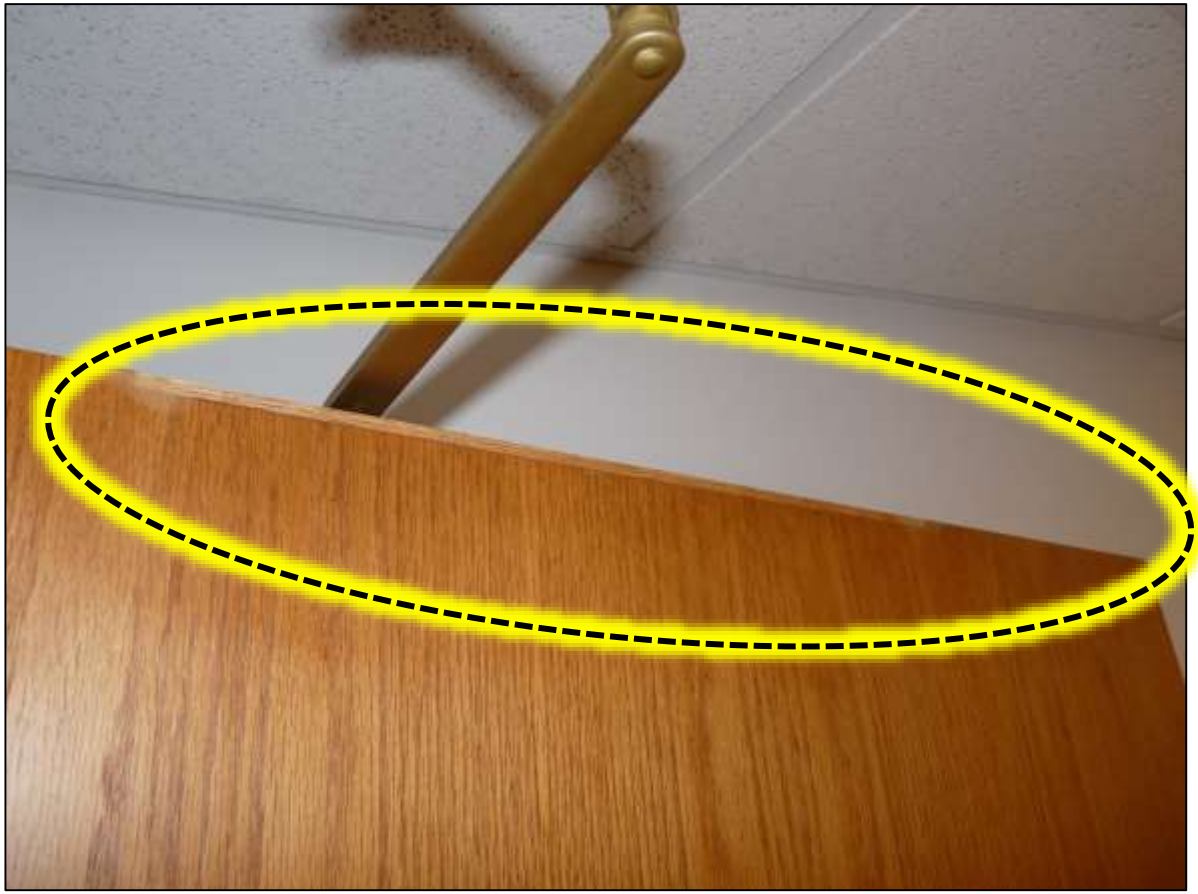
a. Door Modifications

Field Modify an Astragal

Hinged DOOR INSPECTION

Checkpoint # 9

a. Door Modifications



Field In-Fill On Door

Hinged DOOR INSPECTION

Checkpoint # 9 b. Frame Modifications

Hinged DOOR INSPECTION

Checkpoint # 9 b. Frame Modifications

Field Cut-In Strike

Hinged DOOR INSPECTION

Checkpoint # 9 b. Frame Modifications

Field Cut-In Electric Strike

Hinged DOOR INSPECTION

Checkpoint # 9 b. Frame Modifications

Field Cut-In

Electric

Strike

Hinged DOOR INSPECTION

Checkpoint # 9 b. Frame Modifications

Field Cut-In Dead-Bolt Hole

Hinged DOOR INSPECTION

Checkpoint #

9

Field Modifications

Frame Notched for Pipes

Checkpoint #

10

GASKETS & SEALS

Gaskets and edge seals are inspected to verify their presence and integrity

NFPA 80: 6.4.8 Gasketing. Gasketing on fire doors or frames shall be in accordance with the published listings of the door, frame, or gasketing material manufacturer.

Hinged DOOR INSPECTION

Checkpoint #

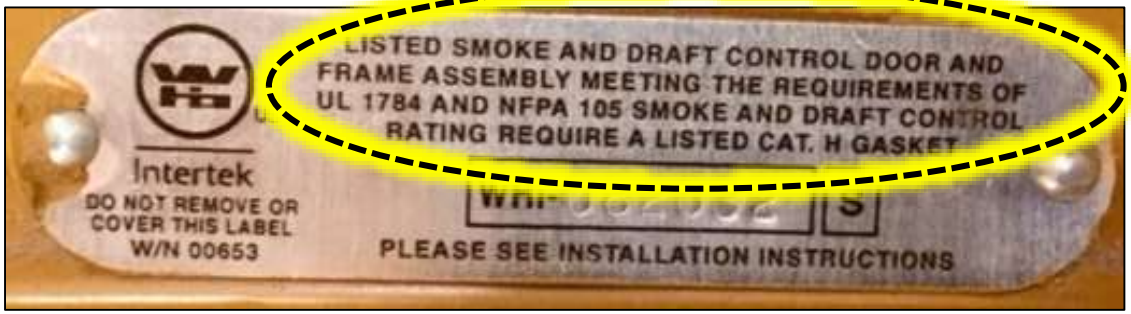
10

Gasket/Seal

Popular Spec Feature

Health care doors are NOT required by LSC to be smoke-leakage rated (CMS Letter 17-38)

Gaskets sometimes prevent door latching



Checkpoint #

11

SURFACE CONDITIONS

No open holes or breaks in surfaces of the door or frame

Hinged DOOR INSPECTION

Checkpoint #

11

a. Door Conditions

Edge of door Scraping

Note the manual slide bolt

Hinged DOOR INSPECTION

Checkpoint #

11

a. Door Conditions

"Breaks" are very subjective

Hinged DOOR INSPECTION

Checkpoint #

11

a. Door Conditions

"Breaks" are very subjective

Hinged DOOR INSPECTION

Checkpoint #

11

a. Door Conditions

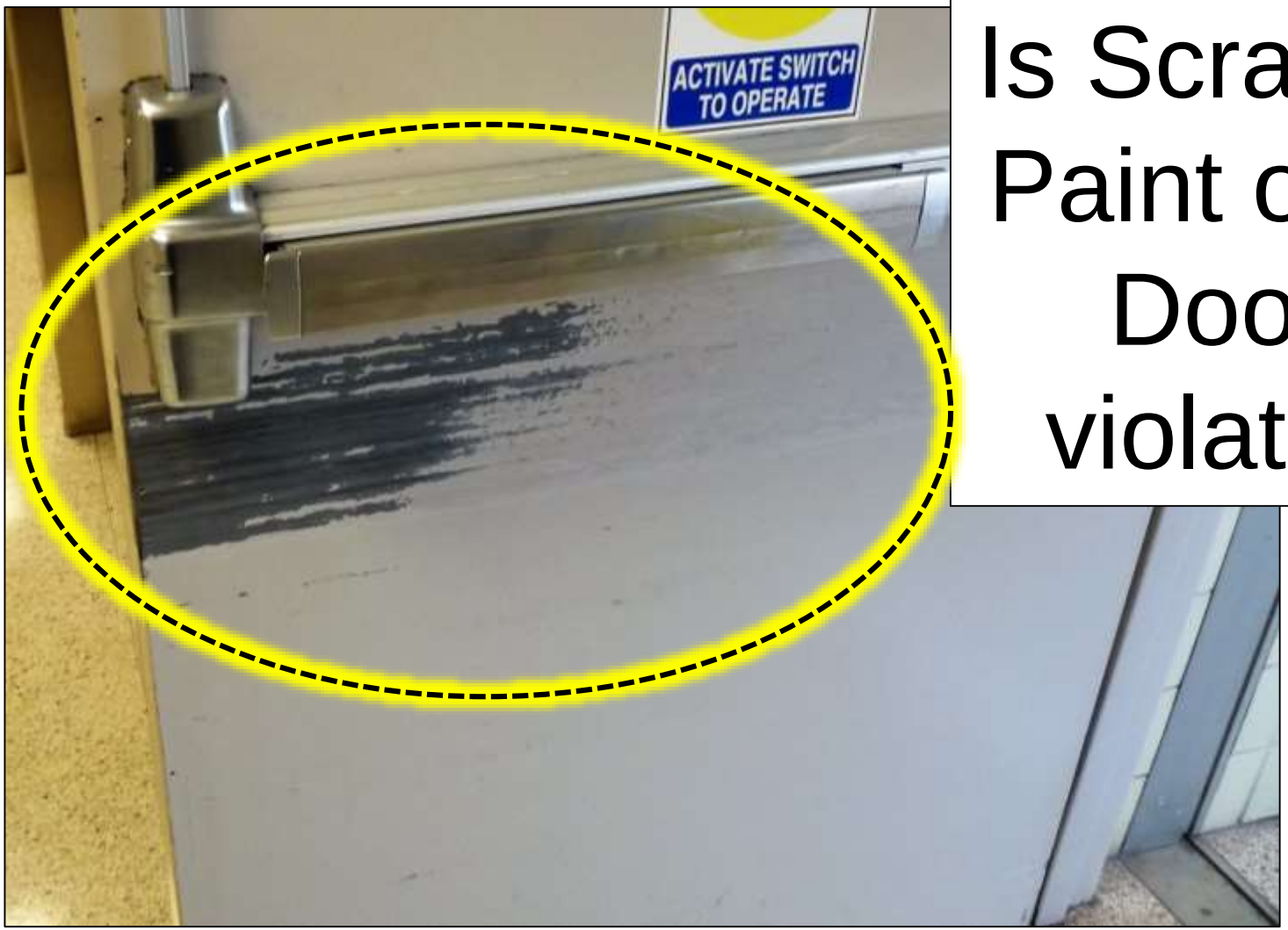
"Breaks" are very subjective

Hinged DOOR INSPECTION

Checkpoint #

11

a. Door Conditions



Is Scratched Paint on the Door a violation?

Hinged DOOR INSPECTION

Checkpoint #

11

a. Door Conditions

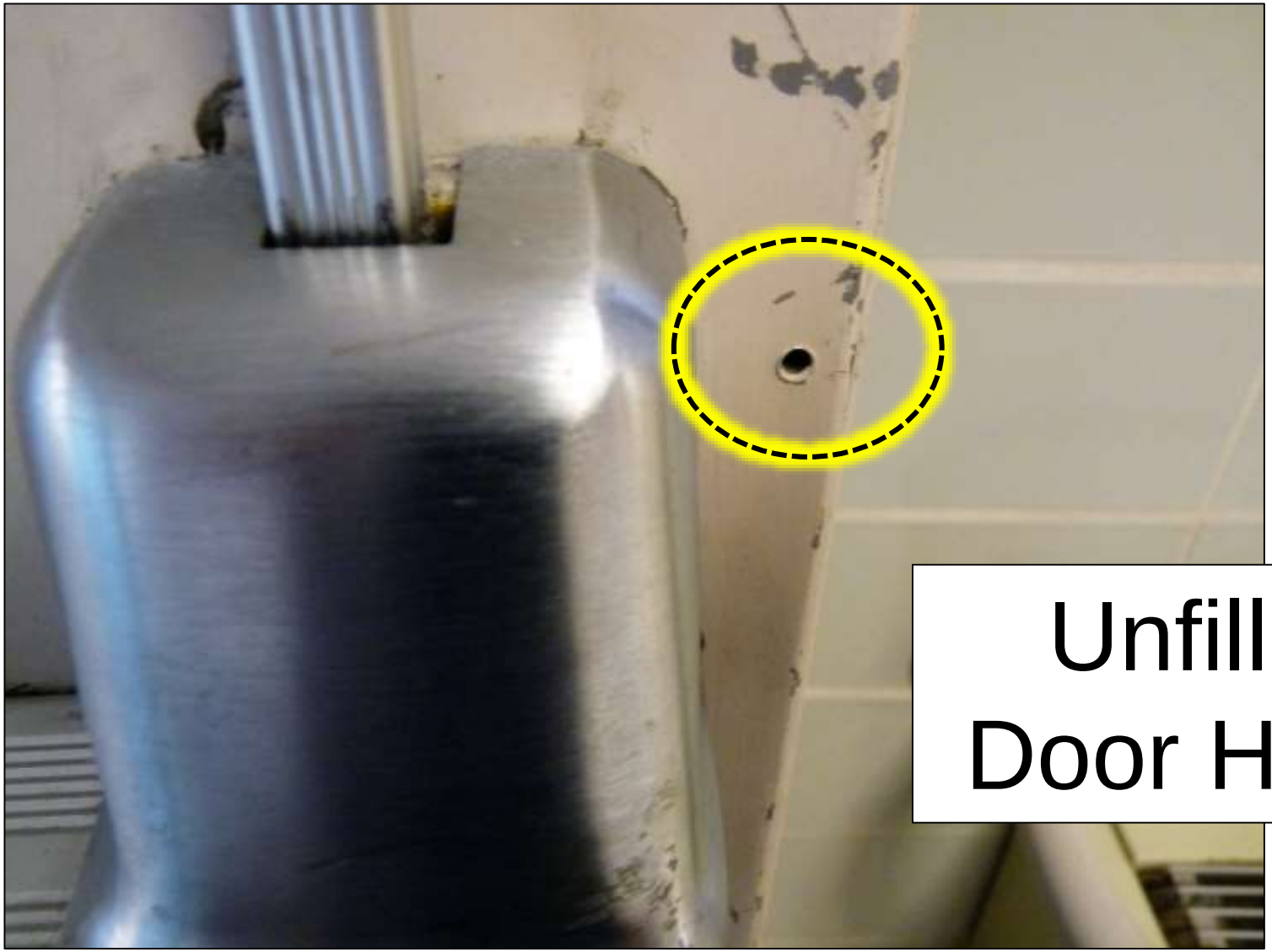
Hole from Old Screw

Hinged DOOR INSPECTION

Checkpoint #

11

a. Door Conditions



Unfilled Door Holes

Hinged DOOR INSPECTION

Checkpoint #

11

a. Door Conditions

Grill must have a fire damper with same rating as the door & be listed for use by the door mfr

Note: If door is located on a corridor wall, grills are not permitted, even with a damper

Hinged DOOR INSPECTION

Checkpoint #

11

b. Frame Conditions

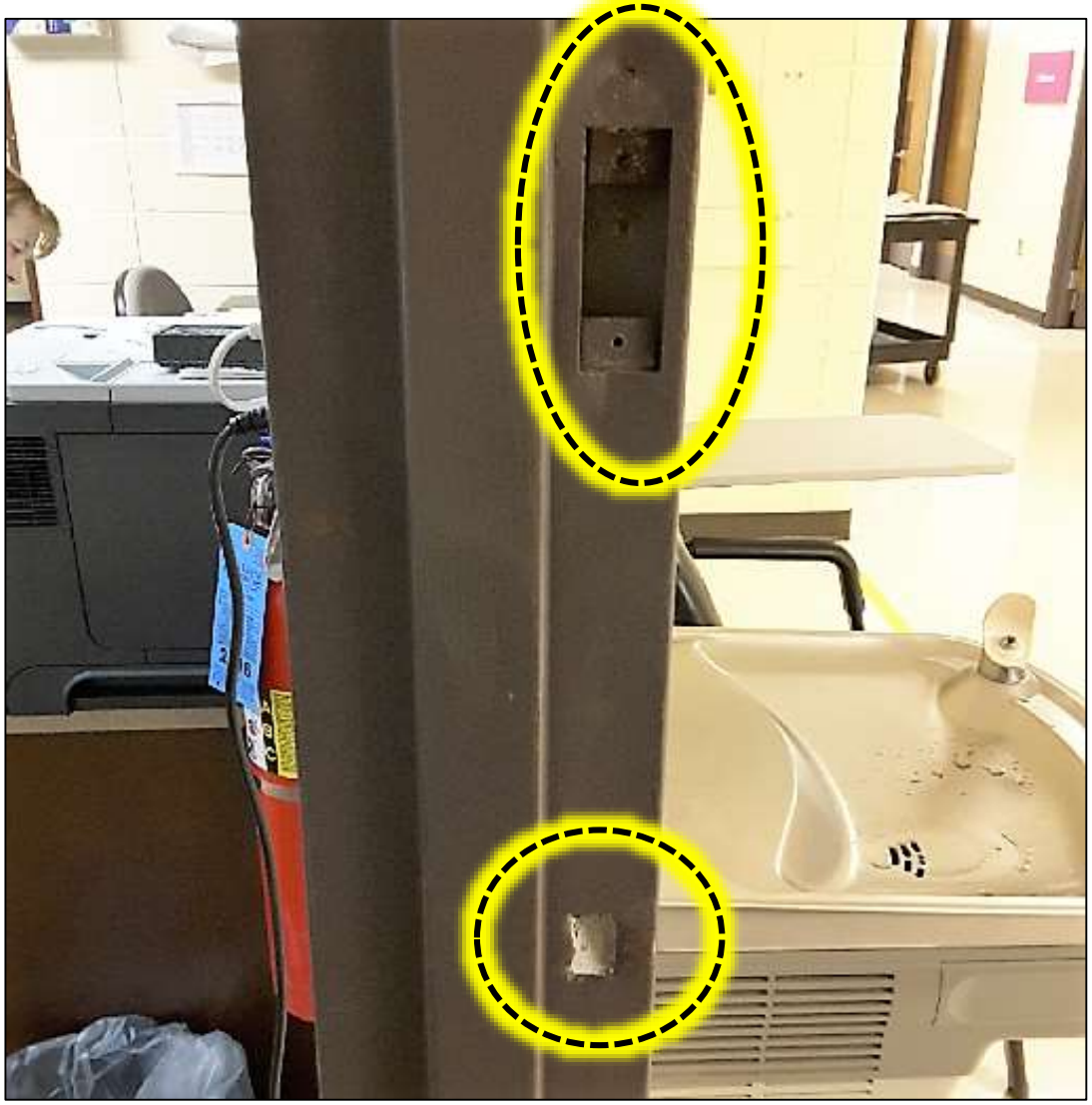
Missing Silencer

Hinged DOOR INSPECTION

Checkpoint #

11

b. Frame Conditions



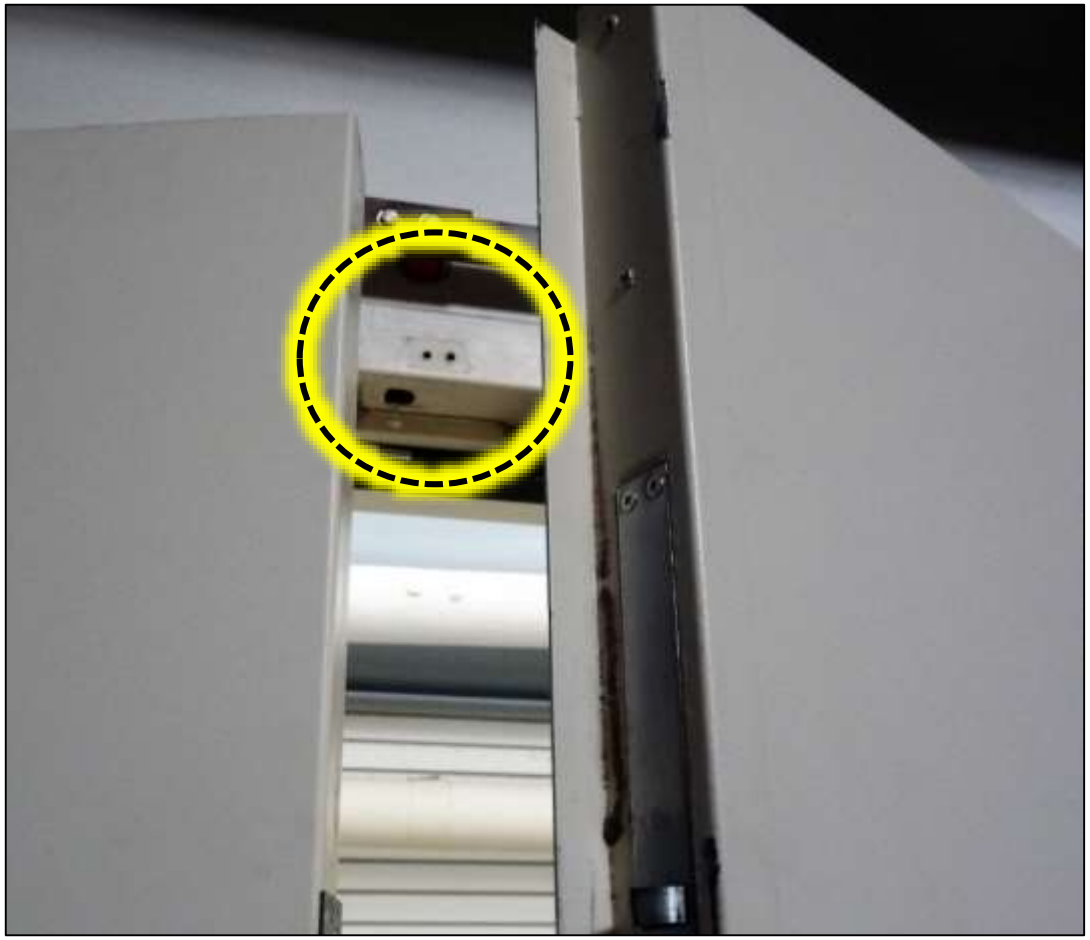
Unfilled Strike Holes

Hinged DOOR INSPECTION

Checkpoint #

11

b. Frame Conditions



Unfilled Frame Holes

Checkpoint #

12

APPROVED SIGNS

Signs that are required to be placed on doors must be intact, legible, properly sized and have the required wording

Hinged DOOR INSPECTION

Checkpoint #

12

Door Signage

No

Exit

Since 1988

Hinged DOOR INSPECTION

Checkpoint #

12

Door Signage

No screws

Checkpoint #

13

APPROVED GLAZING

Glazing is intact & securely fastened in place, if so equipped

Checkpoint #

14

DOOR LATCHING

(a) Be Positive (self) latching

(b) Latch operates and secures the door when it is closed

Hinged DOOR INSPECTION

Checkpoint #

14

a. Positive Latch

Positive Latch

=

Self Latch

Hinged DOOR INSPECTION

Checkpoint #

14

b. Secures Door

Tape over strike hole

Missing the Strike Plate

Hinged DOOR INSPECTION

Checkpoint #

14

b. Secures Door

Turn knob all the way & see if plunger sticks inside door

Hinged DOOR INSPECTION

Checkpoint #

14

b. Secures Door

Door Seals

Can Prevent full Self-Closing & Latching

Checkpoint #

15

LATCH HEIGHT

Latch must be located 34” or higher from the floor and 48” or lower (LSC, 7.2.1.5.10.1)

Hinged DOOR INSPECTION

Checkpoint #

15

Latch Height

Measure if close to limits

Checkpoint #

16

PAIR LATCHING

Pairs of doors: Both leaves must have independent unlatching or auto-flush bolt and no latch on inactive door & unlatching hardware on the active door

(LSC, 7.2.1.5.11)

Checkpoint #

16

Pair Latching

1. Both Independent Unlatched

OR

Hinged DOOR INSPECTION

Checkpoint #

16

Pair Latching

2. No Latch on Inactive;

Latch on Active

Checkpoint #

16

Pair Latching

Manual Slide Bolts permitted on Mech Rms, IF

- Kept in the locked position
- Used only for equipment in/out
- Not a healthcare corridor door

Checkpoint #

17

DOOR UNLATCHING

Must be readily opened from egress side

(a) 1 motion latch release

(b) without using a key or tool or special knowledge (some exceptions)

(c) obvious operation in all lighting conditions;

Hinged DOOR INSPECTION

Checkpoint #

17

a. 1 Motion

Dead-Bolt:

- Not Self-Latching
- Requires 2 Motions

Hinged DOOR INSPECTION

Checkpoint #

17

b. No Key or Card

EGRESS Must Unlatch without a "tool" or special knowledge (24 / 7)

Any of these on an egress door should invite further investigation

Checkpoint #

18

OPENING FORCES

Opening force to

(a) Releases latch is 15 lbs or less

(b) set door in motion is 30 lbs or less in new or 50 lbs or less in existing;

(c) force to fully open is 15 lbs or less in new or 50 lbs or less in existing;

(d) force to doors without closers is 5 lbs or less (LSC, 7.2.1.4.5)

Hinged DOOR INSPECTION

Checkpoint #

18

Door Force

Do NOT buy the 0-35 pound gauge

Not usable for

- Existing Doors
- Powered Doors

Buy the 10-50 pound gauge

Amazon
(an example only)

TechnologyLK

Door Pressure Gauge, 10-50 Lbs

Be the first to review this item

Available from these sellers.

New (1) from $65.99 + $5.15 shipping

Hinged DOOR INSPECTION

Checkpoint #

18

a. Unlatch Force

Lever Latch

Calendrical Knob?

1. Set Guage to 0 lb

2. Push down on lever latch

Hinged DOOR INSPECTION

Checkpoint #

18

a. Unlatch Force

3. Push Down to Unlatch

Hinged DOOR INSPECTION

Checkpoint #

18

a. Unlatch Force

Lever Latch

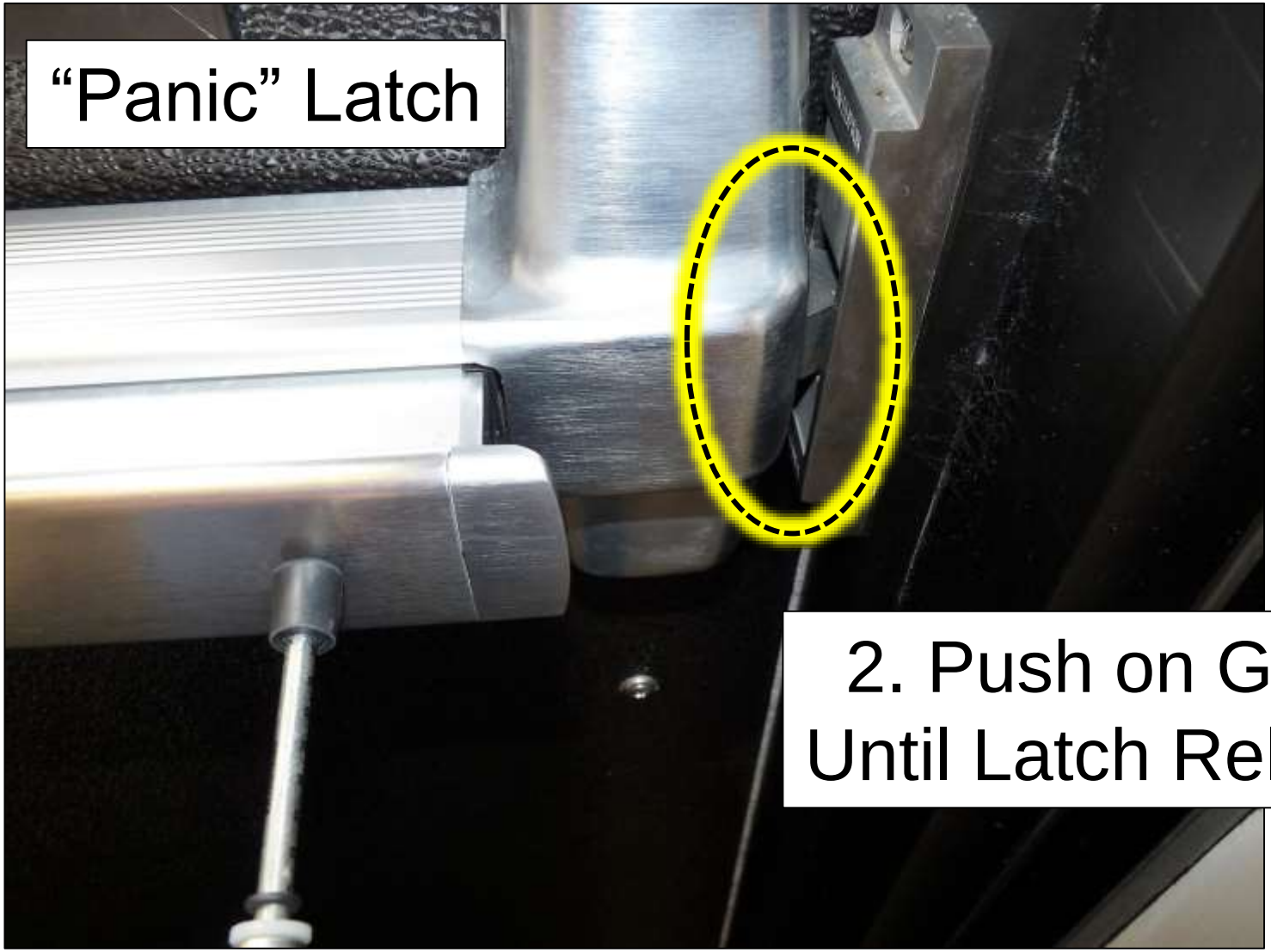
4. Read Gauge
(Max 15 lbs)

Hinged DOOR INSPECTION

Checkpoint #

18

a. Unlatch Force

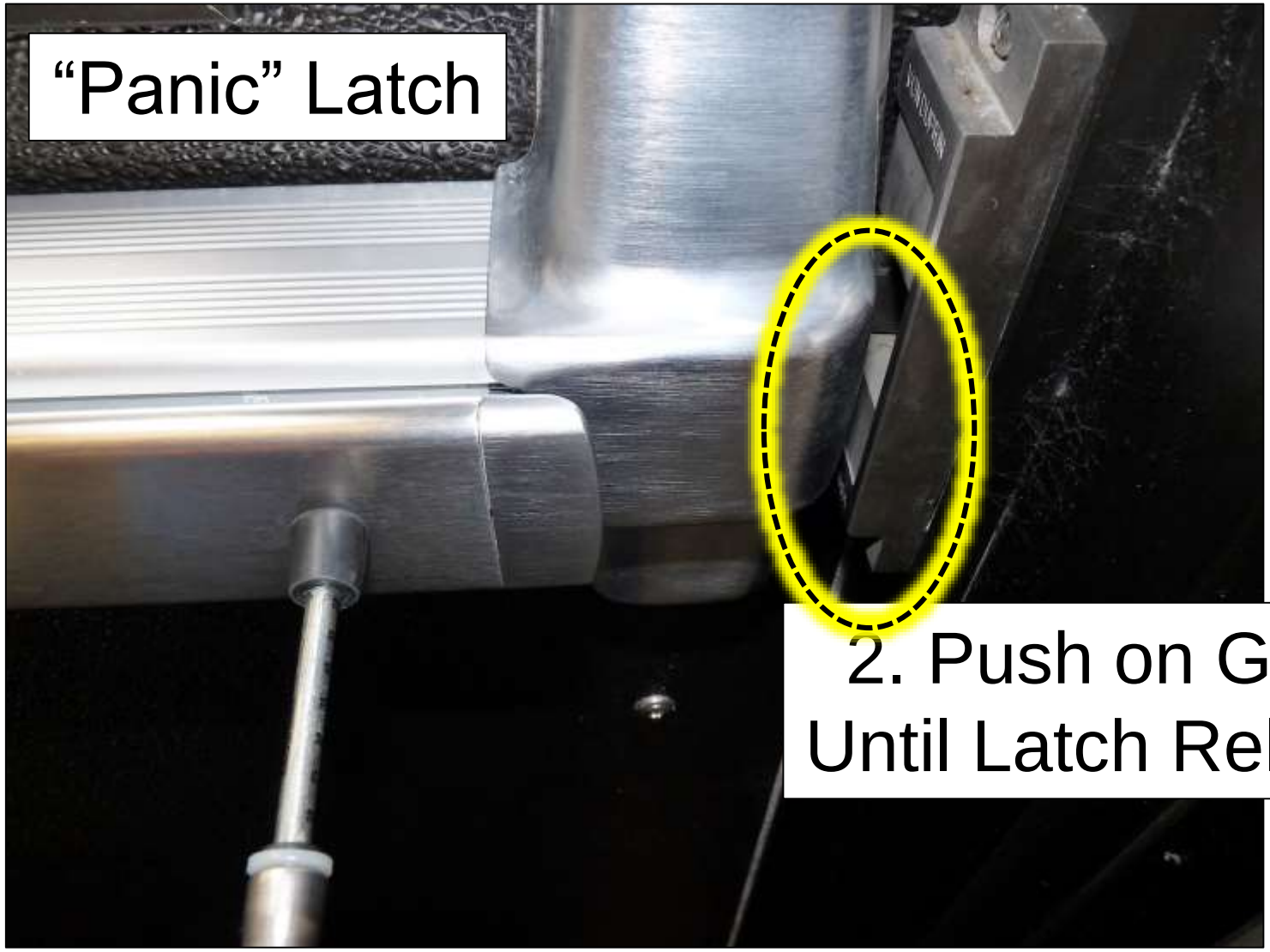


Hinged DOOR INSPECTION

Checkpoint #

18

a. Unlatch Force



Hinged DOOR INSPECTION

Checkpoint #

18

b. Motion Force

1. Reset Gauge to 0 lbs

Hinged DOOR INSPECTION

Checkpoint #

18

b. Motion Force

Lever Latch

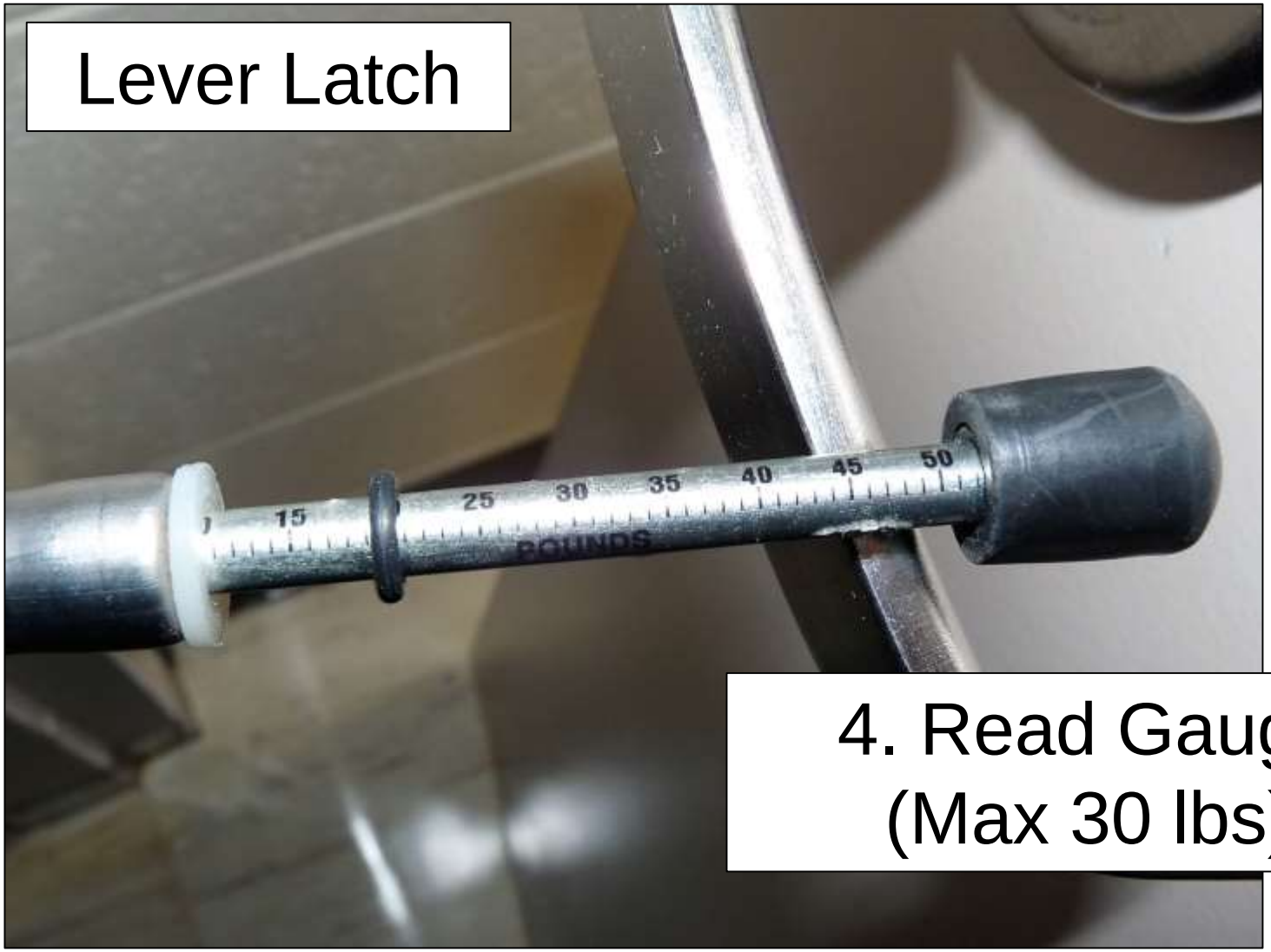
3. Push on Gauge until Door is about 30% open

Hinged DOOR INSPECTION

Checkpoint #

18

b. Motion Force



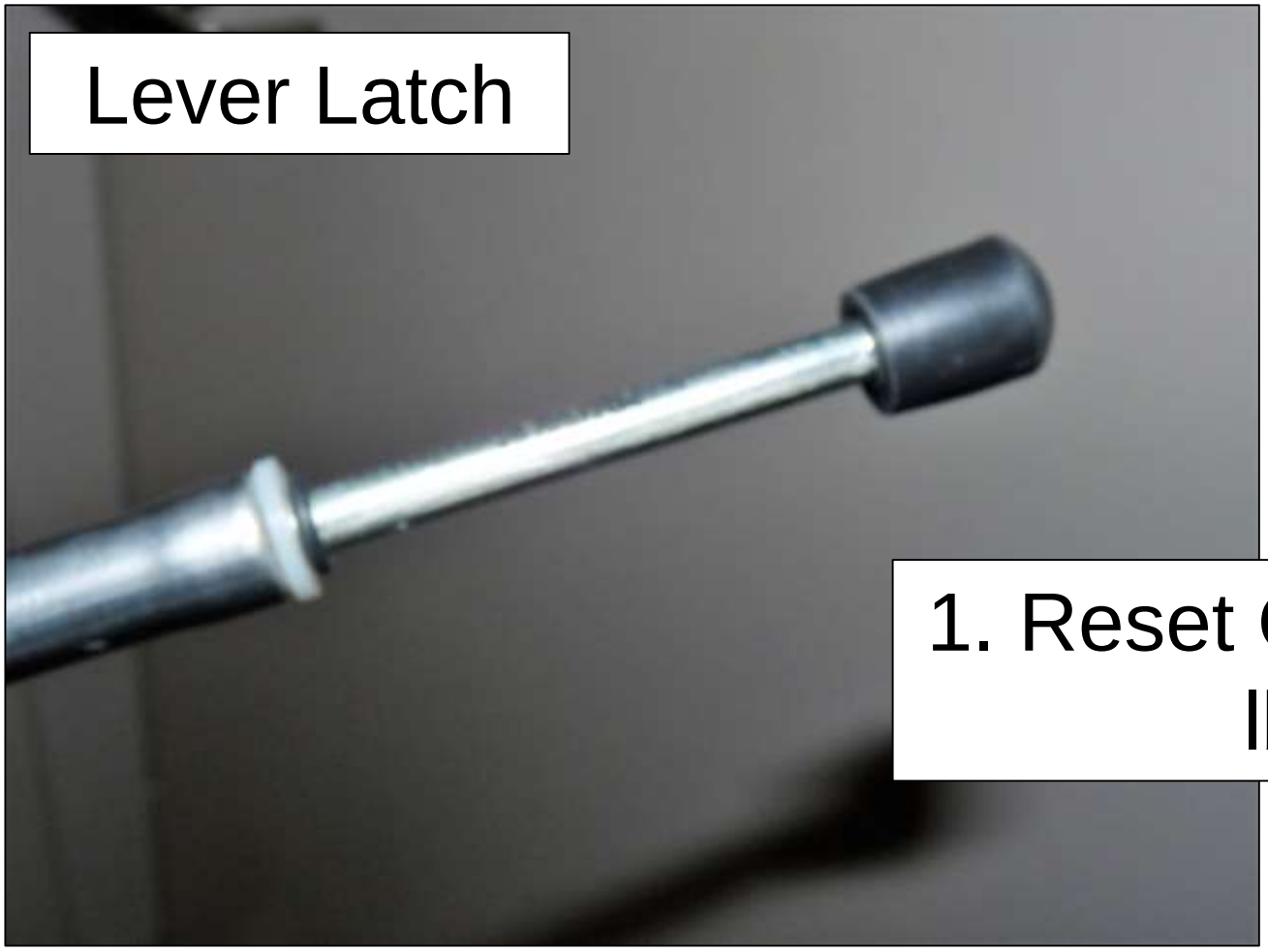
4. Read Gauge (Max 30 lbs)

Hinged DOOR INSPECTION

Checkpoint #

18

c. Open Force



1. Reset Gauge to 0 lbs

Hinged DOOR INSPECTION

Checkpoint #

18

c. Open Force

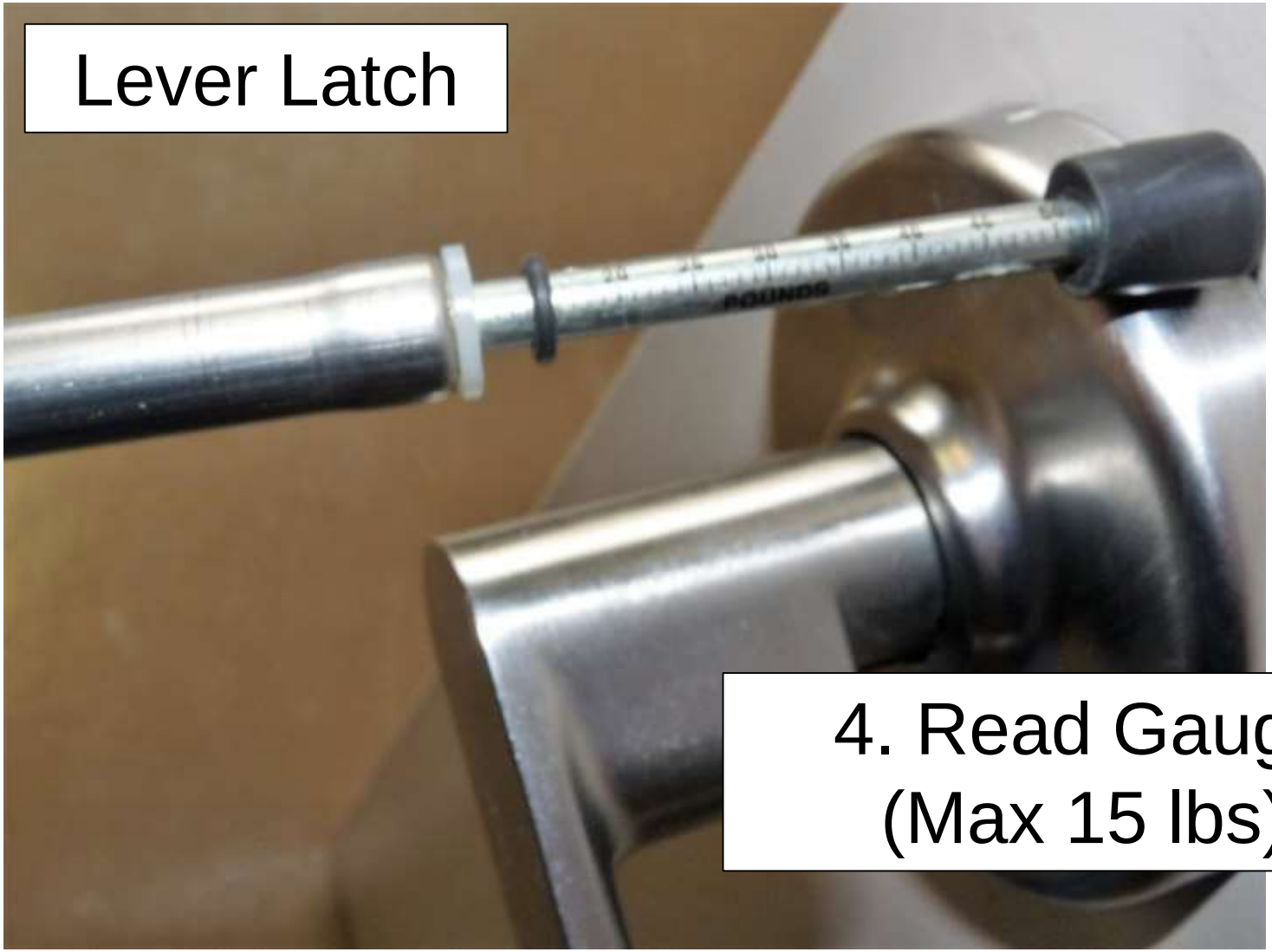
3. Push on Gauge until Door is Fully Open

Hinged DOOR INSPECTION

Checkpoint #

18

c. Open Force



Checkpoint #

19

AUXILIARY HARDWARE

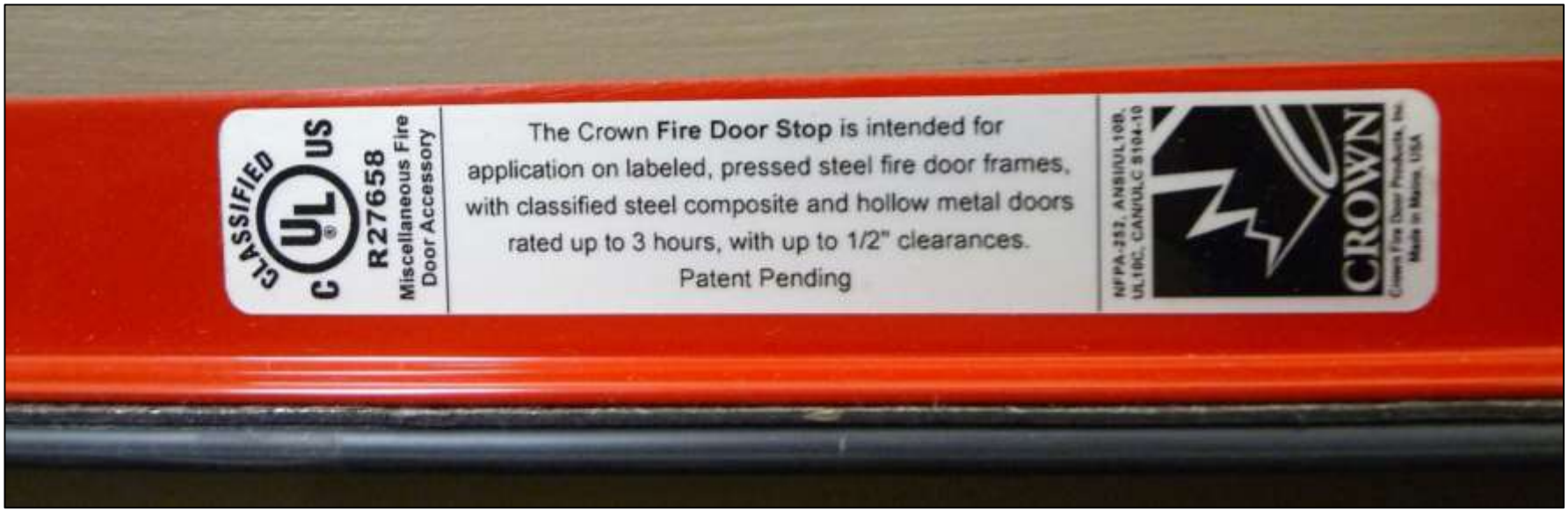
Auxiliary hardware that interferes with function is not installed on the door or frame

Checkpoint #

19

Auxiliary Hardware

Follow Manufacturer's Listed Instructions



Hinged DOOR INSPECTION

Checkpoint #

19

Auxiliary Hardware

- Not Interfere
- UL Listed

Hinged DOOR INSPECTION

Checkpoint #

19

Auxiliary Hardware

- Not Interfere
- UL Listed

Hinged DOOR INSPECTION

Checkpoint #

19

Auxiliary Hardware

- Not Interfere
- UL Listed

Hinged DOOR INSPECTION

Checkpoint #

19

Auxiliary Hardware

- Not Interfere
- UL Listed

Checkpoint #

20

"PANIC" SECURITY

No security devices can be on doors with "panic" hardware of rated doors (LSC, 7.2.1.5.12)

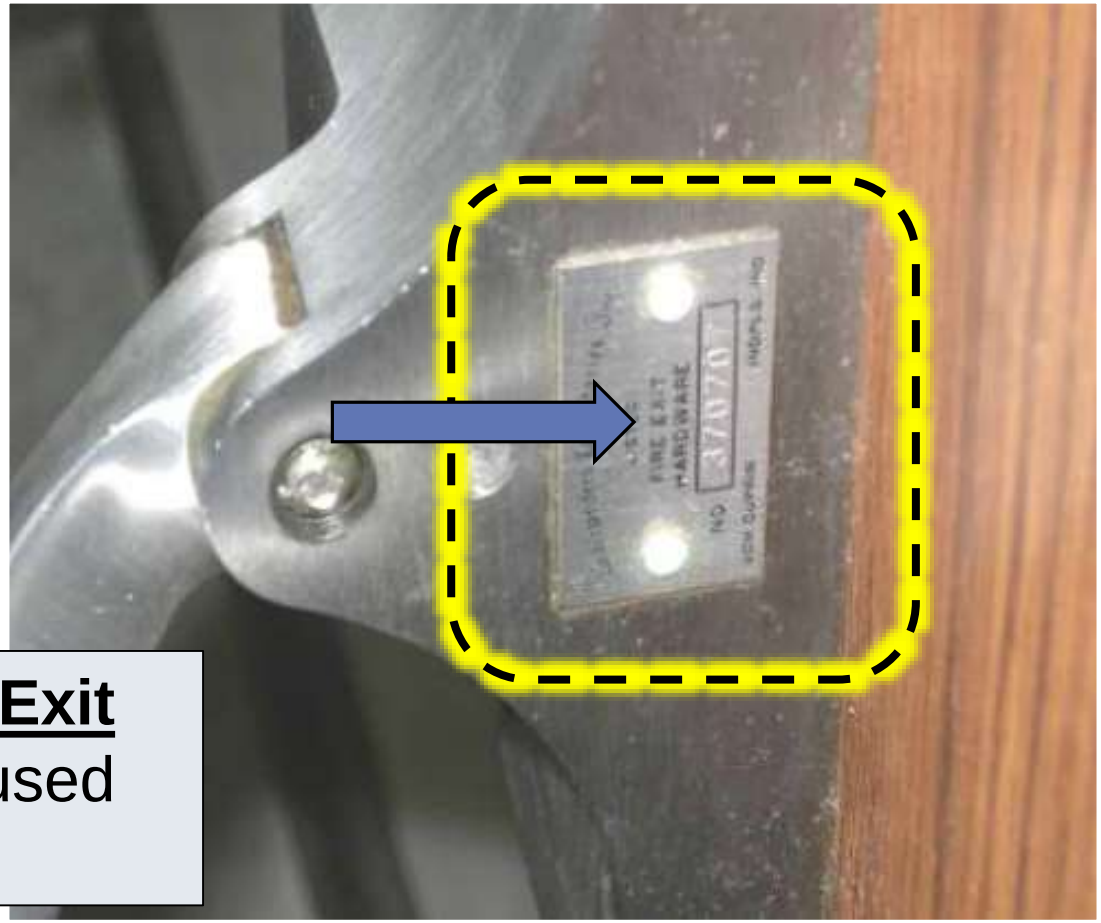
Hinged DOOR INSPECTION

Checkpoint #

20

"Panic" Hardware

Fire Exit Hardware Looks & Operates like Panic Hardware



Only approved **Fire Exit Hardware** shall be used on fire doors

Hinged DOOR INSPECTION

Checkpoint #

20

No Locking

Fire Exit Hardware Looks & Operates like Panic Hardware

Investigate egress door with “panic” type hardware if these are present

Checkpoint #

21

DOOR OBSTRUCTION

Out-swinging doors must

(a) Leave at least 50% of the required egress width clear; and

(b) (2) Project no more than 7” into the required width when the door is fully open (LSC, 7.2.1.4.3)

Hinged DOOR INSPECTION

Checkpoint #

21

Obstructions

50%Rule

Applies when door is open part way

Hinged DOOR INSPECTION

Checkpoint #

21

Obstructions

7” Rule

Applies when door is open to max

Checkpoint #

22

FREE DOOR MOVEMENT

(a) No Obstruction to door opening fully and closing freely;

(b) Floor space on both side of the opening must be level within ½" for the width of the door (LSC, 7.2.1.15.7)

Hinged DOOR INSPECTION

Checkpoint #

22

a. No Obstruction

Hinged DOOR INSPECTION

Checkpoint #

22

b. Level Landing

Max ½” height variance
(LSC, 7.2.1.3.1)

Checkpoint #

23

DOOR BLOCKING

No Wedging or blocking of doors in the open position (NFPA 80)

Hinged DOOR INSPECTION

Checkpoint #

23

No Blocking Open

No Wedges

Hinged DOOR INSPECTION

Checkpoint #

23

No Blocking Open

No Weighted Objects

Hinged DOOR INSPECTION

Checkpoint #

23

No Blocking Open

No Weighted Objects

Hinged DOOR INSPECTION

Checkpoint #

23

No Blocking Open

No Belts or Ropes

Hinged DOOR INSPECTION

Checkpoint #

23

No Blocking Open

No Kick Stops

Checkpoint #

24

KICKPLATE HEIGHT

Kickplates must be

- ≤ 48” high on Haz Rm Doors
- ≤ 16” high on other Fire Doors
- No limit on Smoke Barrier Doors

Unless protective plate is Listed

Hinged DOOR INSPECTION

Checkpoint #

24

Kick Plate

Need Plate Listing Document if over the permitted height

Checkpoint #

24

Kick Plate

Need Plate Listing Document if over the permitted height

Checkpoint #

25

UNDERCUT HEIGHT

Door Undercut must be

- ≤ 3/4” on Fire Doors
- Minimum Needed for Operation on Smoke Barrier Doors

Checkpoint #

25

Undercuts

Shop-Made Undercut Gauge

- ¾” max for rated doors
- 1” max for corridor doors

Hinged DOOR INSPECTION

Checkpoint #

25

Undercuts

Undercut Gauge

- ¾” max for rated doors
- 1” max for corridor doors

Hinged DOOR INSPECTION

Checkpoint #

25

Undercuts

Measure

Hinged DOOR INSPECTION

Checkpoint #

25

Undercuts

Measure at several locations

- Pass at Center
- Fail at Edge

(Due to floor slope)

Hinged DOOR INSPECTION

Checkpoint #

25

Undercuts

Sweep may not be accepted if on Listed for Rated Doors

Checkpoint #

26

POWERED DOORS

Power doors must (a)be openable on power failure (b) must set in motion with 50 lb or less; (c) Will swing fully open; (d) Have a sign: “In Emergency, Push to Open”; (e) If fewer than 50 occupants, sliding doors do not need to breakaway or have a sign; (f) Minimum of 30” wide (LSC 7.2.1.9)

Checkpoint #

27

DELAYED EGRESS

Delayed egress hardware must (a) Release in 15 sec or less when pushed with15 lbs or 3 seconds; (b) Sound an audible alarm at the door; (c) Release on loss of power, on sprinkler, 1 heat detector, or 2 smoke detectors; (d) Have appropriate sign (LSC, 7.2.1.6.1)

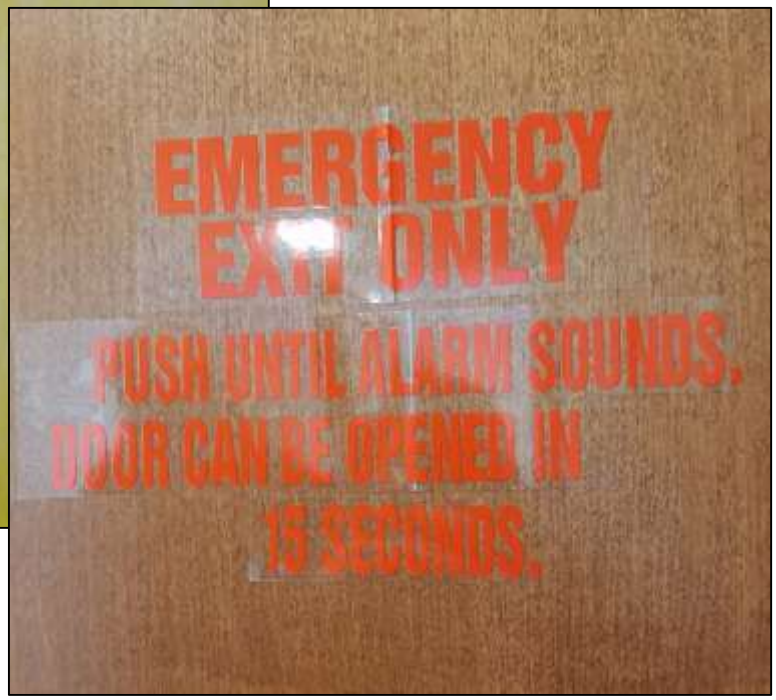
Hinged DOOR INSPECTION

Checkpoint #

27

Delayed Egress

Required Sign



Contrasting Color?

Checkpoint #

28

ACCESS CONTROL

Access control hardware must (a) Unlock form egress side via an auto sensor; (b) Unlock with a manual release switch located 5’ or less from the door & is independent of the auto sensor; (c) Has sign “Push to Exit”; (d) Unlatches on loss of power, sprinkler, or fire alarm (LSC, 7.2.1.6.2)

Hinged DOOR INSPECTION

Checkpoint #

28

a. Sensor

Must have Auto Sensor

Hinged DOOR INSPECTION

Checkpoint # 28

b. Secondary Button

Must have Manual Button

DOOR

← Max 5’ →

Checkpoint #

29

REPAIR w/o DELAY

Hardware shall be examined & inoperative hardware, parts, or other defects shall be replaced without delay

Hinged DOOR INSPECTION

Checkpoint #

29

Repair w/o Delay

Must Fix Immediately

Hinged DOOR INSPECTION

Checkpoint #

29

Repair w/o Delay

Must Fix Immediately

Inspection of Rated Doors

Visu	
1. No parts are missing or broken	NFPA 80 §5.2.4.1(4)
2. No Damage on Hardware, Door, frame, & hinges secured, aligned	NFPA 80 §5.2.4.1(3)
3. Closer is operational so each doors completely close from the full open position	NFPA 80 §5.2.4.1(6)
4. Automatic Closing doors close under fire conditions (closer, hold-open & smoke d	
5. Closer speed set per ADA requirements (min 5 sec from full open to 12° open).	
6. Coordinator needed on pairs of single egress doors, so the inactive leaf closes bef	
7. Rating Labels are on Door & Frame & readable	
8. Door gaps do not exceed clearances 1/8" (astrigal required on pairs of corridor d	
9. No field modifications that void the rating label.	
10. Gaskets and edge seals are inspected to verify their presence and integrity	
11. Surface of Door & Frame does Not have open holes or breaks; no grills w/o dam	
12. Signs must (a) be intact, legible, proper size, (b) Have required wording, (c)No scews	
13. Glazing is intact and securely fastened in place, if so equipped	NFPA 80 §5.2.4.1(2)
14. Positive Latching hardware operates and secures the door when it is closed	
15. Latch located >=34" high (new) and <=48" high (if installed > 2003)	
16. Pairs of doors must (a) both have independent unlatching, or auto flush bolt & n and unlatching hardware on active door; (b) Astragel on rated doors & c	
17. Unlatch from egress side (a) with 1 motion; (b) not require use of a key or specia (c) Obvious operation in all light conditions	
18. Max Opening force to (a) release latch is 15 lb; (b) to set door in motion with a closer is 30 lb (new) and (c) to full open is 15 lbs (new); (d) Doors without closers open <= 5 lbs; (e) <=50 lb if installed > 1988	LSC §7.2.1.4.5
19. Auxiliary hardware items that interfere with operation are not installed	NFPA 80 §5.2.4.2(9)
20. "Panic-type" hardware does not have locking device (except Delayed Egress, Acess-Control,	LSC §7.2.1.5.12
21. Outswinging doors must (a) Leave >= 50% of egress width; (b) project <= 7" into width when full open	LSC §7.2.1.4.3
22. No obstruction to full opening & freely closing; Floor is Level on both sides of door	LSC §7.2.1.15.7(1)
23. No wedging or blocking of doors in the open position	NFPA 80 §5.2.13.3
24. Kickplates: ≤ 48"@Haz Rm(per LSC); ≤ 16" hi @other Fire Doors, unless rated (no limit @Smk Doors)	NFPA 80 §6.5.4.3
25. Door Undercut=< 3/4" on Fire Doors; & the minimal needed for operation on Smoke Doors	NFPA 80 §4.8.4.1
26. Power doors: (a) must set in motion with <= 50 lbs; (b) will swing fully open; (c) Has sign "In Emergency, Push to Open"; (d) Min 30" wide; (e) openable on power failure	LSC §7.2.1.9
27. Delayed egress locks must: (a) release in <=15 sec after max 3 sec pushing with <= 15 lb; (b) manual relock only; (c) audible alarm at door; (d) release on power failure, sprinkler, one heat, or 2 smoke detectors ; (e) sign says "Push Until Alarm Sounds, Door Can Be Opened In 15 Seconds" in 1" hi contrasting letters	LSC §7.2.1.6.1
28. Access control must: (a) unlock from egress side via auto sensor; (b) unlock with manual button <=5' from door & Independent from sensor; (c) Signed "Push to Exit"; (d) unlatch on power loss, sprinkler, or fire alarm	LSC §7.2.1.6.2
29. Hardware examined & inoperative parts, or other defects replaced without delay	NFPA 80 §5.2.9

- There are many door requirements to check
- It gets easier with experience

Inspection of Rated Doors

Questions?

Welcome to the Feb 2018

WHEA Lunch & Learn

Lauzon Life Safety Consulting

Healthcare Survey Protection

Your Protective Shield in the Code War