10 Ways To Fail An Acceptance Test

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1. Not pulling a permit before installation

➢ IBC 2012 –

[A] 105.1 Required. Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit.

1. Not pulling a permit before installation

➢ IFC 2012 –

[A] 104.2 Applications and permits. The fire code official is authorized to receive applications, review construction documents and issue permits for construction regulated by this code, issue permits for operations regulated by this code, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.
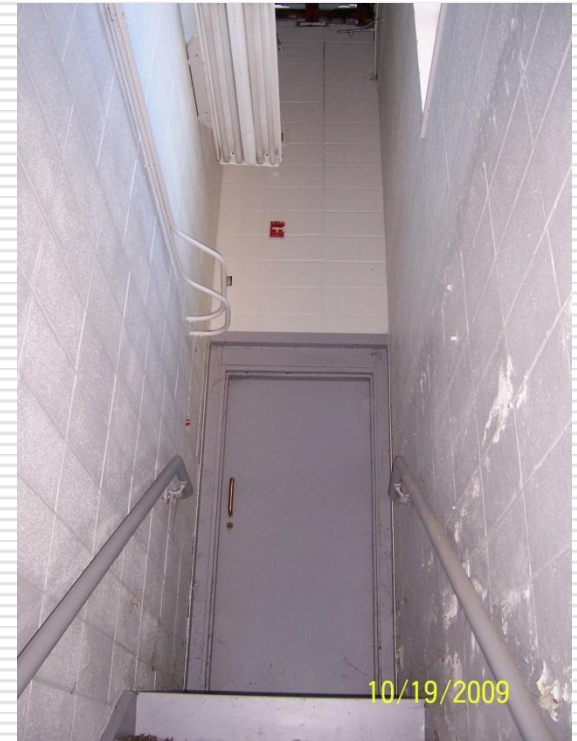
1. Not pulling a permit before installation

➢ 2013 NFPA 72

7.3.2* Where required by governing laws, codes, or standards, or other parts of this Code, design (layout) documents shall be prepared prior to installing new systems. (SIG-ECS)

10.20.2 The authority having jurisdiction shall be notified prior to installation or alteration of equipment or wiring.

2. No Pre-Test Prior to Final Acceptance Test

➢ smoke detectors not in the correct location

  ➢ too close to air vents

➢ Smoke detectors not spaced correctly

➢ pull stations not in the correct location

  ➢ not within 5' of the exit

10/19/2009

2. No Pre-Test Prior to Final Acceptance Test

➢ initiating devices do not activate properly

> ➢ Waterflow switches not set to the correct delay
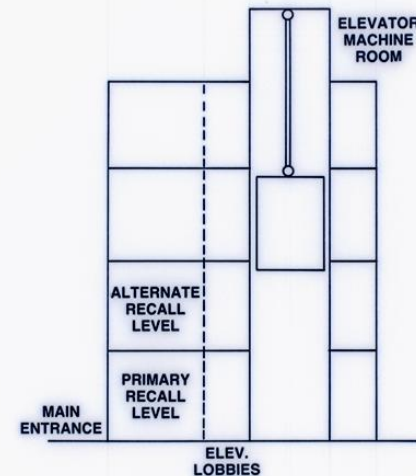>
>> ➢ 30-90 seconds

2. No Pre-Test Prior to Final Acceptance Test

➤ notification appliance at an incorrect mounting height or not working

➤ Strobes not set to the right candela rating

➤ Audibles not the proper dBA level

2006.03.03

2. No Pre-Test Prior to Final Acceptance Test

➤ emergency control functions don't operate correctly

  ➤ HVAC doesn't shut down

  ➤ Dampers don't close

  ➤ Elevators don't recall properly

ELEVATOR MACHINE ROOM

ALTERNATE RECALL LEVEL

PRIMARY RECALL LEVEL

MAIN ENTRANCE

ELEV. LOBBIES

3. Someone other than the fire alarm contractor schedules the acceptance test

If the General Contractor or owner schedules the acceptance test before the fire alarm is ready for a final, chances are it will fail.

Only the fire alarm contractor should be allowed to schedule the test (the permit holder)

4. Not having qualified or enough personnel for the test

NFPA 72-2007, 10.2.2.5.1 - Service personnel shall be qualified and experienced in the inspection, testing, and maintenance of fire alarm systems. Qualified personnel shall include, but not be limited to, one or more of the following:

4. Not having qualified or enough personnel for the test

(1) *Personnel who are factory trained and certified for fire alarm system service of the specific type and brand of system

(2) *Personnel who are certified by a nationally recognized fire alarm certification organization acceptable to the authority having jurisdiction

4. Not having qualified or enough personnel for the test

(3) *Personnel who are registered, licensed, or certified by a state or local authority

(4) Personnel who are employed and qualified by an organization listed by a nationally recognized testing laboratory for the servicing of fire alarm systems

4. Not having qualified or enough personnel for the test

10.2.2.5.2 Evidence of qualifications shall be provided to the authority having jurisdiction upon request.

5. Not coordinating with other trades to be at the acceptance test

➤ The following trades should have representation at the acceptance test to test their portion of the fire protection system

   ➤ Sprinkler Contractor

   ➤ HVAC Contractor

   ➤ Elevator Contractor

   ➤ Fire Pump Provider

   ➤ Monitoring company (if different than installation company)

6. Not having proper test equipment available to conduct the test

➢ smoke generator for SD's

  ➢ No magnets!

➢ heat source for restorable HD's

➢ ladders

➢ extension cord

➢ radios

7. Incomplete or missing final documentation

➢ Record of Completion

➢ As-built Drawings

7. Incomplete or missing final documentation

7.2* Minimum Required Documentation. (SIG-FUN)

7.2.1 Where documentation is required by the enforcing authority, the following list shall represent the minimum documentation required for all fire alarm and emergency communications systems, including new systems and additions or alterations to existing systems:

7. Incomplete or missing final documentation

(1)*Written narrative providing intent and system description

(2) Riser diagram

(3) Floor plan layout showing location of all devices and control equipment

(4) Sequence of operation in either an input/output matrix or narrative form

(5) Equipment technical data sheets

7. Incomplete or missing final documentation

(6) Manufacturers published instructions, including operation and maintenance instructions

(7) Battery calculations (where batteries are provided)

(8) Voltage drop calculations for notification appliance circuits

(9)*Completed record of inspection and testing in accordance with 7.6.6 and 7.8.2

7. Incomplete or missing final documentation

(10) Completed record of completion in accordance with 7.5.6 and 7.8.2

(11) Copy of site-specific software, where applicable

(12) Record (as-built) drawings

(13) Periodic inspection, testing, and maintenance documentation in accordance with Section 7.6

(14) Records, record retention, and record maintenance in accordance with Section 7.7

7. Incomplete or missing final documentation

➢ ## Record of Completion

7.5.6.1* The record of completion shall be documented in accordance with 7.5.6 using either the record of completion forms, Figure 7.8.2(a) through Figure 7.8.2(f), or an alternative document that contains only the elements of Figure 7.8.2(a) through Figure 7.8.2(f) applicable to the installed system.

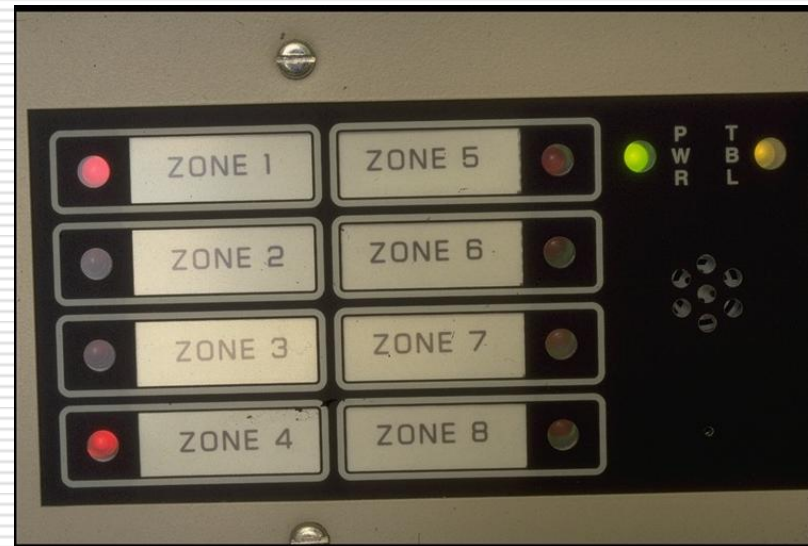# 7. Incomplete or missing final documentation

➤ ## As-built Drawings

7.5.5.4 Record drawings shall be turned over to the owner with a copy placed inside the documentation cabinet in accordance with Section 7.7.

7.5.5.5* Record drawings shall include approval documentation resulting from variances, performance-based designs, risk analyses, and other system evaluations or variations.

8. Not verifying info on panel and annunciators for accuracy

10.18.3.2 All required annunciation means shall be located as required by the authority having jurisdiction to facilitate an efficient response to the situation.

9. Incorrect signals to the monitoring facility

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7.5.8.3 Verification shall ensure that:

(3) For new supervising station systems, the verification shall also ascertain proper arrangement, transmission, and receipt of all signals required to be transmitted off-premises and shall meet the requirements of 14.4.1 and 14.4.2.

10. Making changes to the approved design without AHJ approval

10.20.2 The authority having jurisdiction shall be notified prior to installation or alteration of equipment or wiring.

Bonus - No Test Plan in place

14.2.10.1 A test plan shall be written to clearly establish the scope of the testing for the fire alarm or signaling system.

(New requirement in 2013)

Questions?