

Module 10: Fire Protection Desk

Goal: Understand the basics of fire protection work so you can answer calls, book inspections, follow up on repairs, and keep permits moving.

About 12 minutes

All names, phone numbers, addresses, and companies in this lesson are made-up examples. They are marked "(example)".

Why This Matters to the Employer

Fire protection is life-safety work. A sprinkler or alarm system sits quietly for years, then has to work perfectly on the worst day of someone's life. The desk keeps that promise on track. You book the inspections, chase the repairs, and keep the city happy. If you know the trades already, this module gives you the fire side. If you're new, it gives you the words you'll hear on day one. You don't need to be a technician. You need to know enough to ask the right questions and send things to the right person.

The Three Kinds of Systems

Most fire protection companies work on some mix of these:

- **Fire sprinklers.** Pipes, valves, and sprinkler heads that put water on a fire. Think of it as the plumbing side. Also called "water-based" systems. Fire pumps and standpipes often fall under this side too.
- **Fire alarm.** Smoke detectors, heat detectors, pull stations, horns, strobes, and the fire alarm control panel that runs them. Think of it as the electrical side. It detects the fire and warns people.
- **Low-voltage systems.** A wider group of small-wire systems. Depending on the company, this may include fire alarm, plus things like security, access control, cameras, or emergency phones. Ask what your company means by it.

The short version: Sprinklers fight the fire. Alarms find it and warn people. Many buildings have both, and they talk to each other. When a sprinkler flows water, it can set off the alarm.

ITM: Inspection, Testing, and Maintenance

You'll hear "ITM" a lot. It means the regular checkups that keep a system ready.

- **Inspection:** Looking at the system. Are gauges normal? Is a valve open? Is anything damaged or blocked?
- **Testing:** Making the system do its job on purpose. Flowing water, setting off a detector, checking that the alarm sends a signal.
- **Maintenance:** Fixing and caring for parts so they keep working. Replacing batteries, servicing valves, and so on.

Some checks happen monthly or quarterly. Others happen once a year or every few years. The tech or your service manager knows the schedule. Your job is to make sure the visits get booked and nothing slips.

The Codes, at a High Level

The rules come from the **NFPA** (National Fire Protection Association). You don't need to read the codes. Just know the two big names:

- **NFPA 25** covers ITM for water-based systems, like sprinklers.
- **NFPA 72** is the National Fire Alarm and Signaling Code. It covers fire alarm systems, including how they're inspected and tested.

Two more things to know:

- **The building owner** is responsible for keeping the system inspected. Your company does the work for them.
- **Local rules can add to the codes.** Each city or county decides which edition it uses and may add its own forms or steps.

If a customer asks a code question, don't guess. Say, "Great question. Let me get that to our service manager so you get the right answer."

Monitoring and Signals

Many fire alarm systems are **monitored**. The panel sends signals to a **central station**, a company that watches them 24/7 and calls the fire department or the customer. Companies use tools like monitoring platforms and communicators (the device that sends the signal) to set up and manage these accounts.

The panel sends three main kinds of signals:

Signal	What it means	Desk response
Alarm	A possible fire. A detector, pull station, or water flow went off.	Safety first. If there's any sign of fire, they call 911 and get out. Follow your emergency script.
Supervisory	Something in the system is off-normal and could stop it from working, like a closed sprinkler valve.	Treat it as urgent. Get it to the service manager or on-call tech now.
Trouble	A fault in the system itself, like a low battery, power loss, or wiring problem.	Get the details and book service fast. The system may not work right until it's fixed.

System out of service? If a customer says their sprinklers or alarm are shut down or not working, that's called an **impairment**. Many places require extra steps, like notifying the fire department or posting a fire watch. Flag it to your manager right away. Don't tell the customer what they do or don't need to do.

Inspections and Deficiencies

Scheduling Recurring Inspections

Inspections repeat. Companies use tools like ServiceTrade to track them, but the habits are the same in any system:

- **Book ahead.** Reach out a few weeks before the due date, not the day of.
- **Confirm the site contact and access.** Who meets the tech? Is there a gate, a key, or a riser room? (More in Module 3.)
- **Check if the building needs notice.** Testing an alarm can make it loud. Tenants may need a heads up, and the central station may need to be told so they don't send the fire department.
- **Mark it done.** When the report comes back, close the job and make sure the next one is on the calendar.

Reading an Inspection Report

You don't need to understand every line. Look for these:

- **Site and system:** Right building? Right system?
- **Date and tech:** When it happened and who did it.
- **Overall result:** Passed, or passed with problems?
- **Deficiencies:** Anything that failed or needs work. This is the part you act on.
- **Notes or photos:** Extra details the tech left.

A **deficiency** is a problem found during inspection. Some are small, like a missing sign. Some are serious, like a closed valve or a dead panel. If a report says "impairment" or "critical," get it to your manager the same day.

From Deficiency to Repair

Here's the usual flow:

1. **Report comes in** with deficiencies.
2. **Quote gets built.** Send the deficiencies to whoever prices repairs, like the service manager or estimator. Include the report and photos.
3. **Quote goes to the customer** with a clear list of what was found.
4. **Follow up.** No answer in a few days? Call. A deficiency doesn't fix itself.
5. **Customer approves.** Turn the quote into a repair job. Order parts if needed. (Module 5.)
6. **Repair gets done.** Close the job and note it in the ticket.

Some cities also want inspection results sent to the fire department, sometimes through an online reporting service. Ask how your company handles it.

Permits and the AHJ

Who Is the AHJ?

AHJ stands for **Authority Having Jurisdiction**. It's the office that has the final say on a system in that area. Usually it's the local fire department or fire marshal, sometimes working with the building department. Every city and county can do things a little differently. That's why you'll hear, "Check with the AHJ."

The Permit Path

New systems and many changes need a permit. Here's the path, step by step:

1. **Plan submittal.** The company sends drawings, product sheets, and an application to the AHJ. You may help scan, upload, and fill out forms.
2. **Fees.** The AHJ charges permit and plan review fees. Make sure they're paid and the receipt is saved to the job.
3. **Plan review.** The AHJ reviews the plans.
4. **Corrections.** If they want changes, they send back **corrections** (also called comments). Get them to the designer or PM right away, then resubmit. Track the dates.
5. **Approval.** Plans are approved, and work can start.
6. **City or county inspections.** When work is ready, someone books the AHJ inspection. Many places use online portals, like Accela. Others want a phone call or email.
7. **Close-out.** After the final inspection passes, the paperwork gets finished.

Close-Out Papers

At the end of a job, the customer and AHJ often need papers like these:

- **Record of Completion.** A form that shows the fire alarm system was installed and tested to match the approved plans. Sprinkler jobs have a similar form, often called a Contractor's Material and Test Certificate.
- **Warranty letter.** Tells the customer what's covered and for how long.
- **Signed-off permit** and test records.

Keep copies in the job file. The building owner may need them for years.

Do This, Not This

Instead of this...	Do this...
Tell a caller "That trouble light is probably nothing"	Get the details and get service booked. Troubles can mean the system won't work.
Answer a code question from memory	Say "Let me get you the right answer" and send it to the service manager
Send a deficiency quote and forget it	Set a follow-up date and call if you don't hear back
Book an AHJ inspection before the work is ready	Confirm with the PM or tech first

Example Scenario

EXAMPLE SCENARIO. All names and numbers are made up.

It's 9:10 AM at Example Fire Protection (example). Dana answers.

Dana: Thanks for calling Example Fire Protection, this is Dana. How can I help?

Caller: Hi, this is Marcus Lee (example), facilities at Harbor View Offices (example). Our fire alarm panel is beeping and it says "trouble."

Dana: Thanks, Marcus. Can I get the best number to reach you?

Marcus: (619) 555-0188.

Dana: That's (619) 555-0188? Great. First, is there any smoke, fire, or alarm going off?

Marcus: No, just the beeping. No horns.

Dana: Good. What does the screen say, word for word?

Marcus: "AC power fail" and "battery trouble."

Dana: Got it. What's the address of the building?

Marcus: 220 Sample Way (example), San Diego.

Dana: Thanks. I see you're a monitored account with us. A trouble means something is wrong with the system itself, so we want a tech out soon. I'm sending this to our service manager now. I'll call you back by 10 with a time. Can someone meet the tech at the panel?

Marcus: Yes, me. The panel's in the electrical room by the lobby.

Dana: Perfect. If the alarm goes off or you see smoke, call 911 first. I'll talk to you by 10.

Dana writes the ticket with the exact panel message, the site contact, and where the panel is, then messages the service manager. At 9:45 she calls Marcus back with a 1 to 3 PM window.

What went right: Dana checked for fire first. She got the exact words off the panel instead of guessing. She didn't say "it's probably the battery." She passed it on fast with the details, promised a callback she controlled, and kept it.

Quick Tips

- Sprinklers fight the fire. Alarms find it and warn people.
- ITM means inspection, testing, and maintenance. Book it ahead.
- NFPA 25 is for sprinklers. NFPA 72 is for fire alarms. Leave code answers to the experts.
- Alarm means possible fire. Supervisory and trouble mean the system may not work. All of them need fast action.
- A deficiency becomes a quote, then a repair job. Follow up until it's fixed.
- The AHJ has the final say. Track every submittal, fee, correction, and inspection.
- Close-out isn't done until the papers are in the file.

Quiz

1. Which system is mainly the "water side" of fire protection?

- a) Fire alarm
- b) Fire sprinklers
- c) Access control

Answer: b. Sprinklers put water on a fire. Alarms detect it and warn people.

2. What does ITM stand for?

- a) Install, test, and monitor
- b) Inspection, testing, and maintenance
- c) Insurance, taxes, and money

Answer: b. ITM is the regular checkup that keeps a system ready.

3. A customer says their panel shows a "supervisory" signal for a closed valve. What do you do?

- a) Book them for next month's inspection
- b) Tell them it's not a real alarm, so it can wait
- c) Get it to the service manager or on-call tech right away

Answer: c. A closed valve could stop the sprinklers from working. Treat it as urgent.

4. A customer asks if their building needs a fire watch while the system is down. What's the best answer?

- a) "No, you should be fine."
- b) "Great question. Let me get our service manager on that right now."
- c) "Yes, always."

Answer: b. Rules vary by AHJ. Don't guess on life-safety questions.

5. An inspection report comes back with three deficiencies. What happens next?

- a) Send the report and photos to whoever builds the quote, then follow up with the customer
- b) File the report and close the job
- c) Book the repair before the customer approves

Answer: a. Deficiencies turn into a quote, then a repair job once the customer approves.

6. What is the AHJ?

- a) The company that monitors the alarm
- b) The office with the final say on systems in that area, often the fire department or fire marshal
- c) The software that tracks inspections

Answer: b. AHJ means Authority Having Jurisdiction.

7. The AHJ sends back corrections on a plan submittal. What do you do?

- a) Wait until the PM asks about it
- b) Fix the drawings yourself
- c) Get the corrections to the designer or PM right away and track the resubmittal date

Answer: c. Corrections hold up the whole job until they're answered.

8. The final inspection passed. Is the job done?

- a) Yes, close it out right away
- b) Not until close-out papers, like the Record of Completion and warranty letter, are finished and filed
- c) Only if the customer has paid

Answer: b. The paperwork is part of the job.