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Guide to Fire Extinguisher Inspection, Testing and Maintenance

BY BRIAN O'CONNOR

Portable fire extinguishers are often times our first line of defense against small fires and chances are you aren't too far from one right now. Like any lifesaving equipment you want to ensure that it is operable at all times so it will work when you need it most. With proper inspection, testing and maintenance (ITM) protocols fire extinguishers can be long lasting, reliable options for combating a small fire early on. This blog will address the [NFPA 10, Standard on the Installation or Portable Fire Extinguishers](#) requirements that help ensure your extinguisher is ready.

The requirements are broken down into three different sections on inspection, maintenance and testing. In each section there is information on what needs to be done (Procedures), who is allowed to perform the work (Qualifications), how often each step needs to be done (Frequency) and how to document the work (Recordkeeping).

Inspection Procedures

Performing an inspection is the easiest thing you can do to ensure your extinguisher can be used reliably and effectively in an emergency. At a minimum, inspection needs to consist of the following steps:

- Make sure it is located in its designated place
- Make sure the extinguisher is visible or that there is signage indicating where the extinguisher is located
- Make sure you can easily access the extinguisher
- Ensure the pressure gauge is in the operable range or position
- Make sure it is full, this can be done by just lifting the extinguisher or you can weigh it

- For wheeled extinguishers, make sure the condition of tires, wheels, carriage, hose, and nozzle are acceptable
- For nonrechargeable extinguishers, operate the push-to-test pressure indicators

Qualifications

You are not required to be certified in order to perform an inspection; any knowledgeable, competent person should be able to do it.

Frequency

NFPA 10 requires extinguishers be inspected when they are initially installed and once a month after that. You should inspect extinguishers more frequently if they are installed in locations where they are more prone to rust, impact or tampering.

Recordkeeping

Records of the monthly inspections need to be maintained by either putting a tag or label on the extinguisher or by having it recorded on paper or electronic files. The following items need to be recorded:

- The month and year of the inspection
- The person conducting the inspection

These records need to be maintained for at least 12 months.

Maintenance Procedures

Maintenance procedures must include the procedures detailed in the manufacturer's service manual and a thorough examination of the basic elements of the fire extinguisher, including the following:

- Mechanical parts of all fire extinguishers
- Extinguishing agent
- Expelling means
- Physical condition

This is completed by doing an external examination. An internal examination can also be required as part of your maintenance. Details on how to do an internal examination are located in your fire extinguisher service manual.

Qualifications

Maintenance needs to be performed by a certified person. Certification requires that a person take a test acceptable to the AHJ . A certified person needs to, at the very least, be familiar with the requirements in NFPA 10.

Frequency

Fire extinguishers need to have an external maintenance examination conducted on a yearly basis, at the time of hydrostatic test, or when specifically indicated by an inspection discrepancy. Extinguishers need to have an internal examination conducted at anywhere from 1-6 year intervals depending on the type of extinguisher. For example, a dry chemical, stored pressure fire extinguisher must have an internal examination every 6 years, see NFPA 10 Table 7.3.3.1 for more details on other types of fire extinguishers.

Recordkeeping

Each fire extinguisher shall have a tag or label securely attached that indicates that maintenance was performed. The tag or label needs to identify the following:

- Month and year maintenance was performed
- Person performing the work
- Name of the agency performing the work

Extinguishers also need a verification-of-service collar located around the neck of the container if an internal examination was conducted. That collar needs to have:

- Month and year the work was performed
- Name of the agency performing the work

Hydrostatic Testing Procedures

A hydrostatic test always begins with an internal and external examination of the extinguisher as described in the maintenance section. The extinguisher then has many of its components removed so it is stripped down to pretty much just the shell and hose and is filled with water at a certain pressure for a certain time. The extinguisher must then be completely dried to get rid of all of the water and is then reassembled and recharged. If there is any leakage, distortion or permanent moving of couplings the cylinder fails the hydrostatic test and it must be condemned.

Qualifications

People who do hydrostatic testing need to know what they are doing because it can be dangerous if performed incorrectly. They need to be trained, certified, and have the correct equipment and facility to perform the testing.

Frequency

Like internal maintenance, hydrostatic testing is done at different intervals based on the type of extinguisher you have. These are done either every 5 or 12 years. See Table 8.3.1 in NFPA 10 to see which applies to your type of extinguisher.

Recordkeeping

For low pressure cylinders a label is required to be attached to the extinguisher. It needs to contain:

- The name of the person conducting the test
- The date of the test
- The pressure at which the test was performed

For high pressure cylinders the testers identification number and the date must be stamped onto the shoulder, top, head, neck or foot ring.

This was intended to be a helpful guide to extinguisher ITM but it doesn't contain all the details that the requirements in NFPA 10 contain. Since there are many different types of extinguishers, there are slightly different requirements based on the extinguisher's characteristics. Electronic monitoring, which is a viable option as a replacement for your monthly inspections was also not addressed here.

If you're interested in more information about portable fire extinguishers check out these resources:

- [Location and Placement of Fire Extinguishers - Fact Sheet](#)
- [Where are Fire Extinguishers Required - Blog](#)

Use the comments below to share your experience with fire extinguishers. What challenges have you faces when conducting inspections? What have you found to be the most common violation?

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BRIAN O'CONNOR
Technical Services Engineer



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LO

T **Tony Prior** 4 months ago
Good day, In my opinion, this page on (Dry Chemical) Fire Extinguisher service is flawed. It fails to mention critical inspection the 30 day, 6 month and annual inspection. Years ago the old NFPA service documents used to indicate removal of hoses and see if there are any obstructions or damages. << Same for all units including CO2. I have come across/witnessed anything from butts to paper and or bubblegum inside. In addition, the dry chemical "may" be caked inside and thus won't work! So looking at the gauge and picking it up means absolute nothing! Far too often I witness "Tag Signers" whom do an absolute disservice to the client and the client. This needs to change!

Reply

W **Wessam Khan** 23 days ago
I totally agree, the monthly inspection is not limited to gauge and picking, it needs also to consider the hoses and nozzle will to fire extinguisher body or not to avoid any leak during using of the fire extinguisher.

Reply

R **Randall Fish** 5 months ago
Morning Mr. O'Connor. Through some research it seems that the consensus is that NFPA-10 requires "annual maintenance" for extinguishers, including disposable, nonrechargeable types. The difficulty I have had is finding out the details of what that work entails. It seems like it requires the "annual external examination" which I would think could be conducted by a "normal" non-certified person reading the owner's manual, but since it appears in NFPA-10 under "7.3 Annual Maintenance" it seems to imply that this person must be certified. Also, does 7.3.1.1 potentially account for this possible exemption of disposables because it uses the term "or" and not "and" when it talks about intervals of maintenance? Thanks for any insight you can give me. Yes, as you can tell, I want to be able to meet the annual requirements for my disposable extinguishers without paying someone to do it for me!

Reply

C **Chris Barandun** 1 year ago
What about the CO2 host continuity annual test? Is any particular reason it was not mentioned in the article?

Reply

B **Brian o'connor** 1 year ago
Hey Chris, thanks for pointing this out. You are absolutely correct that CO2 extinguishers need a conductivity test on the assembly done annually. For those who don't know, CO2 extinguishers have a metal braid in the hose assembly that helps to minimize static shock hazard, this needs to be tested every year to make sure it's working. I didn't include this (as well as other requirements) in the blog since I was trying to keep it short and concise.

Reply

R **Raju** 1 month ago
NFPA always shares valuable information about life-saving systems.

Reply

J **JJ** 2 months ago
Who can tag fire extinguishers on work vehicles and are specific licensing required to do so in QLD?

Reply

S **Shoaib Shafqat** 3 months ago
How to check and ensure the health of CO2 Fire extinguisher? Is there any physical condition which can be changed post discharge?

Reply

M **Mukesh** 3 months ago
Is it a mandatory requirement to perform 6 years maintenance check on portable fire extinguisher PN 898052? If yes, kindly provide a reference.

Reply

R **Rajendraprasad Vishwanath** 4 months ago
India / Tamil Nadu / Chennai
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R **Rajendraprasad Vishwanath** 4 months ago
Can some one tell about the validity for refilling or recharging the Fire Extinguisher
[Reply](#)

R **Roy** 1 month ago
Please follow IS 2190:2010
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J **Jim Epting** 4 months ago
I live in subsidized housing and my class K extinguisher was last inspected in 2005
[Reply](#)

R **Roy** 1 month ago
Self life of the Wet chemical fire extinguisher is 10 Years
[Reply](#)

R **Randall Fish** 4 months ago
Is an "Annual External Examination" considered an "inspection" or "maintenance"?
[Reply](#)

D **David Canady** 5 months ago
can a person get certified to perform annual inspections on fire extinguisher inspections ? If so what certification is it ? I contacted them and they have no information?
[Reply](#)

R **Roy** 1 month ago
Any fire vendor who have fire license can perform AMC
[Reply](#)

T **Todd Lehman** 5 months ago
It states under Qualifications, you are not required to have a certification to do an inspection. Is that any Inspection?

Lets say that I were to become a Certified Portable Fire Extinguisher tech. But I worked for an Electric Company and they want all of the inspections and maintenance on their extinguishers. Is that legal?
[Reply](#)

D **Dano DaBeaver** 1 month ago
Agency having jurisdiction decides what certification is. Sadly, in this "throw away" society, I have found it far less money to replace the extinguisher at the annual inspection and buy new ones at a BIG BOX store. (Costco \$36 regular price). Add to that someone can take it home, do the simple inspection required, and have a reliable extinguisher until hydrostat test time. (Officials don't like this but ...)
[Reply](#)

A **Aaron Piche** 6 months ago
What is the grace period for monthly inspections and annuals?
[Reply](#)

S **Sean Hill** 6 months ago
I am studying to get my class B fire extinguisher license. Is there a good site I can get study material from? Thank you for any information
[Reply](#)

G **Guest** 5 months ago
<https://www.nfpa.org/>
[Reply](#)

S

Shridhar Nikkam 6 months ago

Dear sir,
What is the qualification for get a fire extinguisher competent person certificate.
Is there any mandatory course for certified person.
Pls let us...

[Reply](#)

B

Brian o'connor 6 months ago

NFPA 10 does not specify the exact training required to be certified as it varies from jurisdiction to jurisdiction.

[Reply](#)

N

Nishanth 7 months ago

Now I am doing the maintenance of portable fire extinguisher bi annually (every 6 months). Is it necessary to do the mainter annually?? or is annual maintenance sufficient??

[Reply](#)

G

Guest 5 months ago

Portable extinguishers need annual inspections and service by a certified technician. Monthly inspections are done at th behest. Every 6 years after a hydro-static test or manufacturing date on a powder-based or clean-agent extinguisher, ne receive its 6-year recharge maintenance. Every 12, it needs a hydro-static test.

[Reply](#)

D

Denis 4 months ago

Could you please clarify if P/N 898052 halon 1211 portable fire extinguishers should be serviced every 6 years? Th

[Reply](#)

B

Brian o'connor 7 months ago

Check out the blog above and NFPA 10. They both detail the frequency that inspections, testing and maintenance of po extinguishers need to be done.

[Reply](#)

D

David Golubich 8 months ago

Hi. We are using the RUSOH self-service fire extinguisher at our site. I have a question dealing with the annual inspections pe rules. Am I qualified, after taking the certification test from the manufacturer, to officially ok the fire extinguisher for use after annual inspection? Or does the annual inspection have to be done by a licensed vendor?

[Reply](#)

B

Brian O'Connor 8 months ago

Maintenance needs to be performed by a certified person. Certification requires that a person take a test acceptable to certified person needs to, at the very least, be familiar with the requirements in NFPA 10. Check with your AHJ to see if t recognise the certification you received.

[Reply](#)

G

Gabrielle 8 months ago

Is the inspection that is done immediately after installation completed internally or by does it have to be a full annual inspect conducted by trained external providers

[Reply](#)

G

Guest 5 months ago

A monthly inspection can be done by anyone. Just looking over the extinguisher for damage, gauge pressure, sealed wi accessibility.

[Reply](#)

R

Roy 1 month ago

It is better to carry out the inspection by external fire vendor, and frequency you can decide.

[Reply](#)

S

Saif dogar 9 months ago

Please simply tell the date of refilling span how many years r req for extinguishers

[Reply](#)

G **Guest** 5 months ago
6 year: ABC/BC/Purple-K/Halon/Halotron
5 year: K-Class/CO2/AFFF
[Reply](#)

P **Prem** 9 months ago
What type of Fire Extinguishers should be used in Important document records / Medical Record Storage where it will not damage Medical Records and control fire.
[Reply](#)

G **Guest** 5 months ago
Preferably a clean agent like Halon/Halotron or CO2. Just make sure it's well ventilated, if using Halon.
[Reply](#)

M **Matt Hall** 9 months ago
Hi Brian, I have a question. I'm trying to get my guys to sign off on the extinguishers once a month, but they are all telling me of time? If we don't do it, can we be cited? From who? Can you send me a link to the NFPA code that it says this has to be done? I couldn't find it, but I'm told it exists. Thank you
[Reply](#)

J **Jef** 5 months ago
7.2.4.1
[Reply](#)

N **Nic** 9 months ago
In my view, it is more of an insurance issue if something happens.
[Reply](#)

R **REV SEYER RJ** 28 days ago
Hi Matt!
Nobody could predict if the Fire Extinguisher will work or not. Monthly inspection is important to give us a **minimum assurance** that the unit will work. For me, being a Fire Safety Practitioner and a Volunteer Fire Fighter, it doesn't matter whether it is in the code or not, (although it is stated in NFPA 10) the main reason for this is all about "keeping us confident and confident that the unit will work as it is - to save lives and secure properties."
[Reply](#)

R **Roy Poteete** 9 months ago
What are the requirements for fire extinguishers for ground ambulances on having them serviced, inspected, hydrostatic inspection believe its every 5 years on hydro and a minimum of a 10ABC dry chem like all commercial motor vehicles are required to be retired and have been out of the realm for about 15 years. I work for an ambulance company that has fire extinguishers on their ambulances that was last checked in 2011. The manager of the shop said that the bureau of EMS overrides any federal laws. I am a State Certified Firefighter and had over 10 years of doing commercial building inspections. Any help will be accepted. Thank you
[Reply](#)

Z **Zayed Hasan Maruf** 10 months ago
pls,send me a checklist for trolley type fire extinguisher (foam)
[Reply](#)

R **RAM** 10 months ago
Hi , I just found this blog and I wanna ask a question about Business Owner fire extinguisher monthly inspection. I live in Quebec , Canada and I have one of my client that have a Supermarket and lately he was asked by the insurance to do an extinguisher inspection. So I need to know if he can do the inspection by himself or he must call a certified company to do the inspection. If you can also reply with the article that mention if he can or cannot do it, it will be very appreciated. Thank you
[Reply](#)

N **Nic** 9 months ago
Il faudrait valider avec la compagnie d'assurance, mais NFPA-10 est clair: les extincteurs portatifs doivent être inspectés par mois. Ceci peut être fait par le propriétaire qui vérifie que l'extincteur a été vérifié par un technicien certifié dans les derniers mois, vérifie le manomètre, que la hose n'a pas d'obstruction et que l'extincteur n'a pas servi. Il signe le registre (étiquette). Voilà!
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