

Applied Science  
Technologists & Technicians  
of British Columbia



# Inspection, Testing & Maintenance of Fire Protection Equipment

## Practice Guidelines

Fall 2008

*...to ensure public health and safety by requiring fire protection technicians to be professionally qualified to inspect, test and maintain fire protection systems.*



# Practice Guidelines...

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**NOTE:** *These practice guidelines are to be used as the standard for the work of a Fire Protection Technician or Trainee.*

## As a Technician...

You may only ever perform work which you are qualified to do by virtue of training and experience.

You may only ever stamp work that...

- you are certified in,
- you are qualified to do, or
- has been done under your direct supervision and that has your approval.

Published by the Applied Science Technologists and Technicians of BC (ASTTBC) as a Guide to ASTTBC Registered Fire Protection Technicians. While every effort has been made to ensure the completeness and accuracy of this Guideline, it is the responsibility of the various parties involved in the inspection, testing and maintenance of fire protection equipment to ensure the application of appropriate codes and standards, correct technical practices and procedures and safety of the public.

Published by...

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## 1. Purpose of the Guideline

The **GOAL** of the Fire Protection Certification Program is...

**To maintain, improve and increase the knowledge, ability, and competence of Fire Protection Technicians, to regulate standards of training and practice of and for its members, and to protect the interests of the public.**

The Fire Protection Inspection, Testing and Maintenance Practice Guideline ('Guideline') has been adopted by the Practice Review Board (PRB) of the Applied Science Technologists and Technicians of BC (ASTTBC) as a professional practice resource to Fire Protection Technicians (FPTs).

FPTs registered with ASTTBC are required to only carry out the work that is within the scope of their education, training and experience and that is within the disciplines in which they have been registered by ASTTBC.

FPTs shall at all times adhere to the ASTTBC Code of Ethics.

FPTs will abide by this Guideline and other appropriate information that ensures FPTs provide best practices when offering services to their clients.

While every effort has been made by ASTTBC to ensure this Guideline is complete and accurate in all respects, FPTs are responsible for ensuring the most appropriate practices are used when carrying out their services.

## 2. Registered Fire Protection Technician (RFPT)

A Fire Protection Technician who has met the minimum academic requirements and work experience and who applies to, and is approved by ASTTBC, will be granted the title 'Registered Fire Protection Technician', and will be allowed to use the designation 'RFPT' after their names. The title and designation are federally protected trademarks reserved for use by Registered Fire Protection Technicians who are currently registered with ASTTBC.

## 3. Interim Fire Protection Technician

Interim Certification is available to Fire Protection Technicians (FPTs) in some areas outside the Lower Mainland and Fraser Valley.

Interim certification is granted to FPTs who have not yet obtained the required academic training in the discipline(s) in which they seek registration, but have met the minimum experience requirements.

Interim Certification is granted for a specified period during which the FPT must achieve all outstanding requirements for 'full' certification. Interim Fire Protection Technicians receive an ASTTBC stamp, and may only use it in those areas outside the Lower Mainland and Fraser Valley as determined by the Fire Protection Certification Board.

## 4. Trainee Practice Guideline

Prior to a Trainee receiving ASTTBC 'Full Certification', a Trainee shall work with a designated Trainer while acquiring the necessary experience and education.

### Protocol:

1. The Trainee shall be supervised by a Registered Fire Protection Technician (RFPT) whose responsibility it is to ensure that the Trainee will receive sufficient practical training.
2. When the Trainee has met the work experience and academic requirements as stated below, and the Trainer is satisfied that the Trainee is competent to conduct inspection and testing on their own, the Trainer and Service Company Owner or Agent, registers and signs an entry into the Trainee Log. The Trainee under supervision may then work independently.

### This protocol is required in the following Disciplines:

- A. After completion of the following supervised experience:
  1. **Unit Emergency Lighting – (Battery Packs) 200 units**
  2. **Fire Extinguishers – 400 units**
  3. **Commercial Kitchen Exhaust Cleaning – 25 systems**
  4. **Fire Alarm Systems – 25 up to 32 zone panels**
- B. After completion of the following supervised experience and accepted academic training:
  5. **Fire Alarm Systems – 40 other than as specified in #4.**
  6. **Smoke Control Systems – 25 systems**
  7. **Water-Based Fire Protection Systems – 40 systems**
  8. **Special Fire Suppression Systems – 25 systems**
  9. **Generator Systems – 40 systems**

### Trainee:

1. Shall be registered with ASTTBC as a Trainee.
2. Shall upon request by the Fire Protection Certification Board (FPCB), submit their Fire Protection Technician Log for review.
3. Shall sign/initial the tag(s) at the job site.
4. Shall meet the requirements for full certification within two years without a special exemption from the FPCB.
5. Qualifying experience shall be under the supervision of an RFPT.

### Trainer:

1. Shall be an RFPT in the discipline for which the Trainee is being trained.
2. Shall be responsible for all work done by the Trainee.
3. Shall stamp the tag(s) and sign at the job site.
4. Shall personally stamp and sign all inspection and test reports.
5. Shall review inspection and test reports completed by the Trainee.
6. Shall only train and supervise a maximum of two Trainees.

The intent of this protocol is to allow the Technician the flexibility to work on their own while meeting minimum work experience and training requirements. The Trainer is still responsible for all work done by the Trainee and shall conduct routine and regular audits of the Trainee's Work.

## 5. Definitions

**Authority Having Jurisdiction (AHJ)**... means the Fire Commissioner, Inspectors and Local Assistants to the Fire Commissioner.

## 5. Definitions

**Code...** means the Fire Services Act, Provincial or Municipal Fire Code.

**Fire Services Act...** The BC Fire Services Act is a provincial statute administered by the Fire Commissioner, that includes fire prevention legislation for the province.

**Inspection, testing and maintenance...** means the minimum requirements, depending on the discipline, for the periodic inspection, testing and maintenance of fire protection systems.

**FPT...** means Registered Fire Protection Technician and/or Interim Fire Protection Technician.

**Owner...** means the owner or the owner's authorized agent.

**Service...** means inspecting, testing and maintaining fire protection systems

**Shall...** indicates a mandatory requirement.

**Tag...** means a fire protection tag acceptable to ASTTBC, that has been stamped and signed by an FPT, and that has been attached to fire protection equipment or system on completion of the service required by Code.

**Fire Protection Technician Stamp...** is a stamp that has been provided to an FPT once registered by ASTTBC in one or more fire protection disciplines. The Stamp has inscribed on it the name and number of the FPT and the disciplines for which the FPT is registered.

**Red Tag...** means the standard tag with a large, preferably red 'X', across the front and on the back of the tag.

## 6. Fire Protection Disciplines

- AL** = Fire Alarm Systems
- CO** = Commercial Kitchen Exhaust Cleaning
- EM** = Emergency Power & Lighting Systems
- EX** = Fire Extinguishers
- GS** = Generator Systems
- SM** = Smoke Control Systems
- SP** = Special Fire Suppression Systems
- WA** = Water-Based Fire Protection Systems

## 7. Applicable Codes

The Fire Services Act, Municipal Fire Bylaw and the BC Fire Code and referenced documents. When a conflict exists between the provision of the Code and those of a referenced document, the provision of the Code shall govern.

## 8. Responsibility

It is the Building Owner's responsibility to carry out the provisions of the Code, which includes required inspections, testing and maintenance of fire protection systems. The FPT contracted by the Owner to provide this service shall ensure that all fire protection equipment and systems are inspected, tested, and maintained in accordance with applicable Codes. In addition, the FPT shall ensure that the Owner is made aware of all deficiencies on equipment or systems. The FPT shall advise

the owner of any equipment or systems that have not been tested, inspected or maintained as required by the Codes.

If the FPT works for a company, it is then his responsibility to forward the report and any deficiencies to his/her supervisor for appropriate action.

It is the Owner's responsibility to initiate repairs, additional testing or maintenance to the fire protection systems or equipment as required by the Codes.

## 9. Provision of Services

**Contact with the Owner.** The FPT should determine the best time for the service to be completed and the scope of work required. The FPT will discuss where to leave the Inspection Reports and obtain contact numbers in the event that repairs are required immediately. The FPT should be courteous, cooperative and informative and treat the Owner with respect.

**Preparation.** The FPT should prepare by reviewing previous inspection, test and maintenance reports; familiarize themselves with the activities/occupancy of the site and prepare a list of items that may need to be investigated or reviewed; and ensure the necessary access to all parts of the building in which the fire protection equipment is installed.

Depending on the discipline, the FPT should observe all conditions in the building, which affect the proper and safe operation of the fire protection equipment and systems. This includes, but is not limited to...

- Fire separation doors and walls are in place and that they work properly;
- Proper location and accessibility to fire protection equipment;
- Any new occupancy, which could change the level of protection;
- New walls or separations that might have been constructed and for which fire protection equipment has not been properly installed;
- Obstructions to the fire protection equipment;
- Anything else that might affect the proper functioning of the fire protection systems or compromise public health and safety.

**Inspection/Testing/Maintenance...** Fire protection equipment shall be inspected and tested as required by the Codes. Any deviations or alternatives to the Codes must be approved in writing by the AHJ. Deviations or alternatives to the Codes must also be acceptable to the Owner who is responsible for carrying out the provisions of the Codes and may have additional obligations with respect to inspection, testing and maintenance relative to an Insurance Policy or Corporate Loss Control Program.

When a fire protection system or individual piece of equipment has been serviced in accordance with the Codes a new tag bearing the FPT stamp and signature shall be attached to that equipment. The standard inspection form shall be provided to the Owner, and the report shall be stamped and signed by the FPT.

For 'minor deficiencies' the new tag shall be punched as 'inspected/ tested' and 'additional work required' will be noted.

## 9. Provision of Services... cont'd

'See log and report' shall also be punched to draw attention to the nature of the deficiencies. A tag bearing the FPT stamp and signature shall be attached to the equipment. The standard inspection form shall be provided to the Owner and the report shall be stamped and signed by the FPT.

For 'major deficiencies' the new tag (provided by the FPT) is to be attached to the equipment. The tag shall be defaced using a large (preferably red) 'X' across the front and on the back. A complete description of the deficiencies shall be filled out on the inspection form and the report shall be stamped and signed by the FPT. The standard inspection form shall be provided to the Owner.

When fire protection systems or an individual piece of equipment are not serviced as required by the applicable Codes, the FPT shall **NOT** tag or stamp that equipment and the Owner shall be notified that the required service was **NOT** completed. ASTTBC master form 'FOO' shall be completed and provided to the Owner.

**Major Deficiencies...** A major deficiency in a fire protection system or equipment exists when...

- a. the primary function is impaired relative to the original design due to deficiencies, and/or
- b. the operation of this equipment is in question due to lack of inspection, testing and maintenance.

Examples of a major deficiency would include, **but not be limited to...**

- A battery pack that does not work;
- A fire extinguisher that has been discharged;
- A fire pump that does not start;
- Audible alarm devices on a fire alarm system do not work;
- Alarm initiating devices on a fire alarm system do not work;
- A sprinkler system operation is impaired;
- A system or equipment was not tested in accordance with the Fire Code and 6 months overdue for inspection and testing;
- Extinguishing agent discharge plug (squib) missing or disconnected;
- A portable fire extinguisher that is more than 6 months overdue for a hydrostatic test; or
- Fire hose that is rotted and/or over due for a hydrostatic test.

**Minor Deficiencies...** A minor deficiency in a fire protection system may be present when the system functions in accordance with the design criteria for which it was originally installed but the equipment is in need of minor repair or additional maintenance (not additional testing).

Examples of a minor deficiency would include, **but not be limited to...**

- A portable fire extinguisher that is less than 6 months overdue for a hydrostatic test;
- A dry pipe sprinkler system that trips, however, exceeds the 1 minute maximum trip time;
- Two or three painted sprinklers; or
- A fire pump that needs additional maintenance.

**Note: Minor or major deficiencies reduce the level of safety from the minimum standard of life safety and property protection required by the Code.**

When this Practice Guideline is followed including the use of standard inspection forms, the Fire Protection Technician is authorized under the By-Laws and Code of Ethics to affix his/her stamp to the tags and inspection forms. If this procedure is not followed then the Fire Protection Technician shall not affix his/her stamp to the tags or inspection forms.

**Tagging the fire protection equipment...** Tags used on the fire protection equipment shall be the standardized tag accepted by ASTTBC. Once the fire protection equipment has been serviced in accordance with the Codes the FPT shall place the FPT tag on the equipment. Tags should be placed facing out so that it is easily readable by the Owner and AHJ.

If a fire protection system does not meet the Code the FPT shall stamp and sign the tag and then tick the 'additional work required' and 'see inspection and test reports'. The FPT may wish to identify the problem by writing on the back of the tag.

**Red Tagging a Fire Protection System...** For major deficiencies red tags shall be used by the FPT to indicate that the fire protection system or piece of equipment was serviced but does not provide the level of protection for which it was originally designed and installed or the system or piece of equipment has deficiencies that may cause it, during activation, not to operate in the manner to which it was intended.

A red tag shall be used to advise and alert the Owner and AHJ that, although the system has been serviced, there are deficiencies that remain on the system or piece of equipment. The tag shall be defaced using a large (preferably red) 'X' across the front and on the back.

The FPT shall initiate notification to the Owner immediately of any deficiencies regarding the fire protection system(s) or piece of equipment.

When major deficiencies exist on the fire protection system(s) or piece of equipment or a combination of major deficiencies are identified by the FPT, and

- The Owner, after being advised by the FPT does not take appropriate action, and
- When in the FPT's opinion the public is placed in imminent danger,

The FPT shall initiate notification to the Local Assistant to the Fire Commissioner by telephone or in person and document that notification in writing.

**Closing Interviews/Recommendations...** At the conclusion of the service the FPT should discuss the results of the service with the Owner. The FPT should review the service report and advise the Owner of any deficiencies that need correction. The FPT should clearly explain why it is necessary to correct the deficiency.

## 9. Provision of Services... *cont'd*

The FPT should advise the Owner on the condition of the fire protection systems and/or equipment installed in the building relative to the acceptability of the fire protection equipment at the time of occupancy, or when the fire protection equipment was upgraded voluntarily or by order of the Fire Commissioner. It is not the intent of the Code to upgrade every building, fire protection system or piece of equipment to the Code in force at the time of a service by the FPT. However, there are instances that it may be more cost effective to install new equipment than to provide service to the existing equipment.

**Reports/Standardized Forms...** ASTTBC has standardized report forms for each discipline which meet the minimum requirements for the inspection, testing and maintenance for fire protection systems and equipment. If there are deficiencies on the system it should be explained clearly in the report. These inspection forms should be used by the FPT to ensure that the inspection is complete.

## 10. Stamp Practice Guideline

### Ownership of Stamp

The charge for a member stamp is a lease fee for an indefinite period, provided the Registered Fire Protection Technician (RFPT) or Interim Fire Protection Technician remains in good standing with ASTTBC. This stamp remains the property of ASTTBC and must be returned promptly at the request of the Registrar of ASTTBC.

### Professional Responsibility

The RFPT and Interim Fire Protection Technician are responsible for the use of their stamp at all times including whether it is lost, stolen or misplaced. The onus is always on the Technician to ensure that their application of the stamp is done in a legal, ethical and professional manner. It is also the responsibility of the Technician to be aware of any legal limitations or requirements on the use of the stamp, particularly any limitations imposed by the employer.

The possession of stamped tags is restricted to the RFPT and Interim Fire Protection Technician whose name appears on the stamp and their registered trainee(s) and only while under supervision. Tags may only be stamped at the actual jobsite for which they are required.

### Use of Stamp

1. Use of the stamp is protected under the ASTT Regulations pursuant to the Applied Science Technologists and Technicians Act.
2. Only a RFPT or Interim Fire Protection Technician registered and in good standing may use their Stamp.
3. The right to use the stamp is a privilege granted by ASTTBC.
4. Pre-stamping of tags and documents other than at the applicable job site is unacceptable. Tags and documents shall not be reproduced with a stamp imprint on them.
5. The privilege of possessing a stamp may be revoked if not used in an ethical or professional manner.

### Application of Stamp

1. The RFPT or Interim Fire Protection Technician shall stamp all applicable documents regardless of whether the Municipality has enacted a bylaw that requires certified technicians.
2. The stamp shall be applied in a clear and legible manner.
3. The stamp shall be used on any preliminary, draft or final documents, which have been prepared by the RFPT/Interim Fire Protection Technician or prepared under their supervision.
4. The number of tags or documents stamped shall be only sufficient for the applicable job site and for that time of service.
5. The use of either, the normal usual signature, legal signature or initials of the RFPT/Interim Fire Protection Technician shall be clearly shown in the space provided. Whatever the choice for form of signature, it should be used consistently and a copy of the stamp signature should reside on file with ASTTBC.
6. The date the stamp is used, when required, shall be noted.
7. Interim Fire Protection Technician stamps may only be used in those areas of the province so approved by the Board.

### Document Requiring Stamp

- a. Transfer technician information, or
  - b. Have a technical impact on a third party, or
  - c. Have been specifically requested by a client or an authority with jurisdiction.
1. As a guideline, the stamp will be used for tags and reports. The RFPT/Interim Fire Protection Technician shall only apply the stamp in those disciplines in which certification has been granted by ASTTBC. Letters would not come under this category unless used as an inspection notification.
  2. Any unauthorized reproduction or production of an ASTTBC RFPT/Interim Fire Protection Technician stamp is a matter for both civil and criminal proceedings, as well as action by the Practice Review Board.
  3. Upon request, stamps shall be returned. Stamps not returned within 30 days will result in the technicians' certification being suspended, a notice posted on the web site and notification to the Authority Having Jurisdiction.

### Stamps – Stolen, Lost or Misplaced

1. An RFPT/Interim Fire Protection Technician shall submit to ASTTBC a signed affidavit indicating the disposition of the stamp. Police reports may be requested. Costs for the new stamp and administration fees shall apply.
2. An RFPT/Interim Fire Protection Technician who loses or misplaces a stamp shall not sign or use a facsimile on tags or reports in place of their lost stamp. Tags or reports are valid only when stamped by an RFPT/Interim Fire Protection Technician in good standing.

### Civil Liability

In reviewing the usage of the stamp, there are two major areas of civil liability, Contractual Liability and Tort Liability, which are given consideration.

## 10. Stamp Practice Guideline... *cont'd*

### Contractual Liability

Only parties to a contract may be held to be liable for breach of that contract. Therefore, an employee member cannot be held contractually liable for breach of contract between their employer and a third party. However, if an employee in the performance of their duties fails to sign or stamp work that they have prepared and such failure results in their employer being held liable for breach of contract, such failure might be regarded as breach by the employee of their employment contract. In those circumstances, the employer might seek to recover from the employee the amount of damages they have paid to the third party.

### Tort Liability – Negligence

An employer is vicariously liable for the negligence of an employee if such negligence was committed by the employee in the course of their employment. The employee may also be liable. Damages awarded may be recovered from either or both.

The signing or stamping of documents is only evidence of the identification of parties responsible for the work. The stamping itself may be irrelevant to the question of liability. A member may be civilly liable because they were negligent in preparing drawings and reports or in the supervision of their preparation or because they negligently approved the drawing, not because they signed or stamped them. A member who knowingly accepts responsibility for and signs or stamps documents that have not been prepared by them or under their supervision is in breach of the ASTTBC code of ethics. They may also be civilly liable for fraudulent or negligent misrepresentation if such misrepresentation results in some party suffering damages.

The important point to remember is that in all cases, liability or negligence is a question of fact. The requirement of signing or stamping simply identifies the parties responsible which is one less item the plaintiff would have to prove in a lawsuit.

## 11. Training and Qualifications

The FPT shall meet the minimum academic and work experience requirements for each discipline as required by the Fire Protection Certification Board.

## 12. Confidentiality

The FPT is expected to act with integrity towards clients and to maintain confidentiality and avoid a conflict of interest. Where a conflict of interest arises the FPT will fully disclose the circumstances without delay to the appropriate parties. All reports and documents are the property of the Owner and shall not be disclosed to parties other than the AHJ without prior authorization from the Owner.

## 13. Code of Ethics

The ASTTBC Act and Regulations provides for the professional registration of technologists and technicians, requires that those registered adhere to a Code of Ethics, provides a disciplinary mechanism to deal with breaches of the Code and protects the title 'Registered Fire Protection Technician' and the designation 'RFPT'.

## 14. Professional Liability

ASTTBC FPTs are individually responsible for meeting the standards of performance expected of a professional. Failure to meet these expectations could result in a formal complaint and possible disciplinary action and/or a successful award for damages against the ASTTBC registrant. False or frivolous claims can be costly in terms of financial loss and damage to the reputation.

## 15. Complaints Procedure

**Complaint submissions must be in writing and addressed to the ASTTBC Registrar (ASTTBC staff members dealing with registration applications do not handle complaints).** The Registrar or his/her designate acts as Secretary to the Practice Review Board (PRB) who under the ASTTBC Act and Regulations has responsibility for the review of registrants' conduct. **The Registrar cannot accept verbal complaints.**

**Any person making a complaint (complainants) should be aware that a false or malicious complaint may result in legal action by other parties.**

### Complaint Procedure...

1. Fully document details of the alleged incident.
2. Must include full name and ASTTBC registration number of the FPT(s) in question. ASTTBC can only act against FPTs and Trainees.
3. Include name of business, contact person and phone number at the location where the alleged incident took place
4. Include a **detailed written** description of the actual complaint.
5. Include substantiated photocopy evidence of reports and tags, including photos if possible.
6. An ASTTBC representative, the local fire department or someone acceptable to the Registrar, must verify the complaint.
7. ASTTBC may call the complainant to discuss the issue and to ensure that there is proper information and evidence of an actual violation of the ASTTBC Code of Ethics and Practice Standards.
8. Providing there is reasonably substantiated information and evidence, a copy of the complaint will be forwarded to all parties involved for their comments.
9. Once ASTTBC has received comments from all parties, the Practice Review Board will review the complaint and make a recommendation. If necessary, a Disciplinary Hearing will be held as required under the ASTTBC Act and Regulations.

The first duty of care of an ASTTBC Registrant is the protection of the public interest. Effective application of the ASTTBC Code of Ethics requires information regarding unethical practices and is to be reported to the ASTTBC Practice Review Board. This requires the combined efforts of FPTs, Owners and Fire Departments. It is through full vigilance by all those involved that violations of the ASTTBC Act and Regulations, Code of Ethics and Practice Standards can be addressed and the public interest served.

Applied Science  
Technologists & Technicians  
of British Columbia



## Our Mission...

To serve the public by regulating and supporting technology professionals' commitment to a safe, healthy, and sustainable society and environment.

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