



For Cfpa NEWSletter

The Integrated Fire Protection File

A communication, economic management, and prevention tool for a successful fire protection project.

The conception of the fire protection of a building is a major project. Indeed, it does not only include fire protection installations such as detection or fire suppression systems, but also the organisational and architectural aspects. Each element of the project has interactions with the others.

They are not independent elements but a set of interdependent elements, evolving in parallel and in a complementary way to form an effective and efficient fire protection.

To achieve this objective, it is essential to establish effective communication between the different actors as from the early stage of the design or renovation phase of a building. That is the meaning of the "Integrated Fire protection File".

For this purpose, ANPI proposes an "integrated" approach that has the advantage of raising awareness among all parties concerned with fire protection equipment on regulatory, design, installation, current and operational management aspects from the initial stage of a construction, renovation or modification project until its effective use till the destruction of the building.

Decisions taken alone and/or without consultation are cause of problems in the future and lead to ineffectiveness and inadequacy of the installed protective measures. This type of situation is common and leads not only to delivery delays, but also to significant additional costs associated to the modifications required by the inspection authorities/bodies.

The Integrated Fire Protection File is above all an economic management tool! It avoids additional costs at the end of the construction site since it allows all applicable requirements to be integrated from the very beginning of the project!

There are too many examples of such errors:

- The capacity of a new dancing hall was reduced - the emergency exits were too narrow.
- A cinema complex was closed due to inefficient smoke extraction system.
- A fire in a new storage space in large department store - they forgot to adapt the fire detection system.
- The sprinkler installation made inefficient by new high-rise shelving.
- Etc.

What should have been done to avoid these non-conformities? - Consult each other.

The contracting authority and its safety advisor, architects and design offices, requesting authorities, insurers, project managers, technical inspectors and specialised companies (subcontractors) should have to analyse together the various risk parameters and their regulatory implications. They have to work together to develop the fire prevention and protection measures to be taken into account, and together determine the permissible residual risk.

This will result in a collegial decision that incorporates the opinions of authorities, rescue services, insurers and control bodies that normally are involved at the end of the process.

ANPI therefore recommends that all aspects of the building or renovation project should be integrated into a single document, the "Integrated File", which will follow the same logic at all stages of the project, including the installation and modification of fire protection equipment:

- Regulatory aspect
- Risk analysis
- Tender specifications - and writing of the order form
- Study of plans
- Receipt and initial inspection
- Maintenance and periodic inspection

It resumes the framework of the future building's fire protection procedures and includes a description of the building's location, environmental factors, operating function(s) and operational processes.

In some aspects, the "Integrated File" may be similar to the "Fire Prevention File" required by the Belgian legislation on Health and Safety at Work or the "Subsequent Intervention File" required by the legislation on Temporary Work Sites, but its approach is much more complete because it integrates the

organizational aspects into the purely "technical" aspects of an equipment, details concerning procedures, risk analysis, verification, maintenance and control.

Today, in the light of its experience as accredited inspection body, ANPI hopes to introduce this approach not only during the construction of a building but also during any decision involving the selection, purchase, installation, acceptance and inspection of fire protection equipment or installations.

This "Integrated Fire Equipment File" should include:

(a) stakeholders: the parties and persons involved: their interest, their role in the design, implementation and adoption of the project;

(b) the operational analysis, i.e. the intended use and the conditions set for that use;

(c) occupancy and use characteristics: the type of occupancy, industrial procedures, characteristic functions;

(d) The description and characteristics likely to impact the fire protection equipment of the structure and its environment, equipment and processes and their possible impact on fire safety. This chapter details the characteristics of the fire protection installations and equipment required at each stage of the project, considering the presence of other equipment that may affect the spread of fire or the effectiveness of fire protection systems:

And of course also:

e) information about the building and structure;

f) environment characteristics: extinguishing water sources, flow/pressure characteristics of the public network;

g) the possible impact of outdoor activities;

h) access for emergency services - travel time from the firehouse;

i) the evacuation concept with a description of the organisation and material means of evacuation, both for the structure as a whole and for specific situations;

j) emergency procedures and necessary equipment are considered at all levels from the design phase, from the construction site to the commissioning of the structure;

These involve:

- the organisation and training of the internal intervention service (internal fire-fighting service);

- organizational measures in the event of an evacuation and safety procedures related to fire procedures;

- measures to limit the economic, environmental (resilience plan) and alarm consequences of neighbouring authorities and/or populations;

k) the implementing regulations.

Tender specifications, maintenance and inspection of the equipment are integral part of the document. Each point covered will be documented (reason for the decision or not) in order to build up over time the history of the equipment and thus better understand the limits and advantages of the equipment in place.

At the same time, ANPI wants all parties to keep in mind that the safety of people is paramount. The objective is neither to meet an obligation nor to be released from any liability, but rather to ensure that each actor acts as best as possible to improve the safety of people and property, reduce the fire risk and limit its consequences.

At each stage, the reflection must lead the parties involved to go beyond the "limits" of regulatory obligations to ensure effective fire protection.

To learn more about the Integrated File by ANPI:

- DTD 163 Projet de protection incendie réussi ! – Les prérequis dès la conception
- DTD 166 Votre dossier intégré de protection incendie : La pratique (Conseils pour bien rédiger votre dossier Equipements de protection incendie »

Documents available in French and Dutch on <https://www.anpi.be/fr/eshop>

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