

Advisory Note

A Service to A.G. Coombs Group Clients

Buildings Fire Safety Systems Manual – Reducing Compliance Risk

A building fire safety systems manual is a simple and cost effective tool to assist in maintaining the compliance of fire safety measures as a building is modified over time.

There is an increasing focus on the requirement for baseline data to verify the compliance of fire safety systems. The Australian Standard AS 1851-2012 for maintenance of fire safety systems further clarifies the need and requirement for accurate and up to date data. While the collection of information can become a complex task, a building fire safety systems manual can be a simple solution to address compliance.

Building compliance issues are often caused by changes to fire systems in accordance with current codes and standards, without consideration of the original design standard and / or the features of the system. This is particularly common in multi-tenanted buildings with regular churn. The building can inadvertently be brought into non-compliance, in multiple areas, through a series of minor alterations. This is frequently caused by a lack of readily available and accurate information on the building's fire safety systems, the basis of their original certification, and the absence of a clear change management process.

For example, without accurate fire system information, changes to a building's automatic sprinkler system, to suit new tenancy modifications, are often installed to the "Light Hazard" classification, as per Australian Standard AS 2118.1-1999 (the edition of the standard currently referenced by the National Construction Code). Yet fire sprinkler systems in older buildings were usually designed and certified to different criteria, including Ordinary Hazard-Group 1 (or in Victoria: Ordinary Hazard - Modified), which typically require a higher minimum water flow. Such a change would result in the original building design criteria not being maintained and the building being, in effect, non-compliant. This can result in costly rectification works or could introduce a significant compliance risk for the building owner.

This is one of many examples where building compliance can be compromised. Also, the increase in alternative performance based solutions can further exacerbate this issue.

A straightforward solution is the compilation of a building fire safety systems manual. In its simplest form, this is a central repository for all available compliance and approval documentation relating to the fire safety systems in the building. In many buildings historical documentation is incomplete; however, even partial information can be useful.

As a minimum, the building fire safety systems manual should contain the following:

- Building Permits (Development Approvals)
- Occupancy Permits (Certificates of Classification)
- Fire engineering reports
- Fire Brigade / Authority dispensations
- System certification documentation
- Maintenance schedules / determinations
- Other relevant approval documentation.

For larger or more complex buildings, the manual should include a plain English description of the building fire strategy, an interface matrix, and the following details for each fire safety system:

- System description
- System design standards / criteria
- Approved departures from design standards
- Facility management requirements
- Maintenance requirements.

Buildings with multiple tenancies should also consider documentation for each level or each tenancy. This is particularly relevant where there are approvals or alternative solutions that relate specifically to the tenancy fitout (e.g. interconnecting stairs).

To remain useful, this central repository should be kept up to date as changes occur in the building. The manual should be made available to designers, installers and building surveyors / certifiers undertaking changes in the building. This can be done by:

- Nominating it as a reference document in the building tenancy manual.
- Including reference to it in design briefs.
- Including an update of the manual as a contractual requirement for anyone overseeing changes in the building.
- Amending standard contracts for designers to make reference to the requirements of the manual.
- Undertaking a review of any fitout designs for compliance with the requirements of the manual.

Fire Protection Association (FPA) Australia have published a Good Practice Guide to distinguish the difference between ‘all baseline data’ and the ‘baseline data required for AS 1851’.

It is intended that the Fire Safety Systems Manual covers ‘all baseline data’ that references numerous types of information that describe the installation and performance requirements of a system or piece of equipment and is not to replace AS 1851.

The Figure below illustrates the types of information that would be contained in All Baseline Data / Fire Safety Systems Manual with the ‘baseline data required for AS 1851’ being a subset containing certain aspects required to verify the results of routine servicing against in accordance with AS 1851.

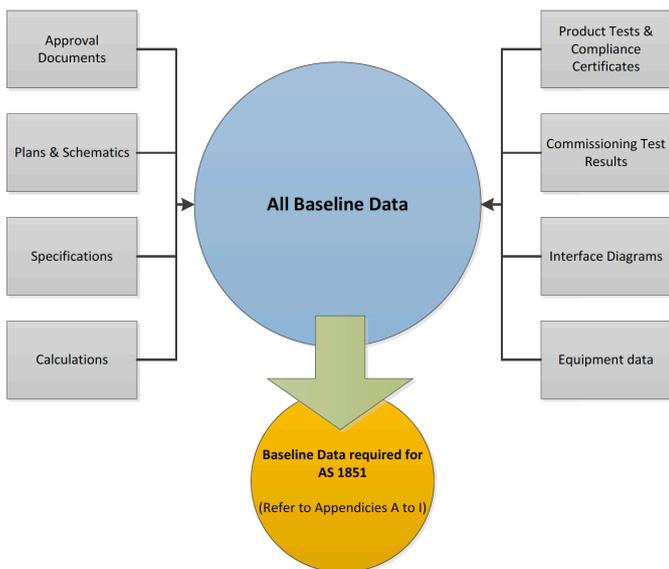


Figure: ‘All baseline data’ versus ‘baseline data required for AS 1851’.
(Source: FPA Australia 2016, Good Practice Guide GPG 05 - Baseline Data for Routine Service of Fire Protection Systems, p.10.)

For more information, please contact:

Marcus Royle

Leader Fire, A.G. Coombs Advisory

03 9248 2700 mroyle@agcoombs.com.au