AS 1851 Project Update

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Agenda

- Timeline on AS1851 proposed project
- List of nominating organizations that make up FP001
- The Standards development process
- Summary of the feedback received from FPA Australia members & other stakeholders by each section of AS 1851.

AS1851 - 2012 Objective

The scope of this Standard is applicable to the routine service procedures for fire protection systems and fire equipment. Routine service procedures for pre-engineered fire systems and other building safety measures such as emergency lighting and exit signs, emergency lifts or standby generator sets can be found in the relevant system Standard.

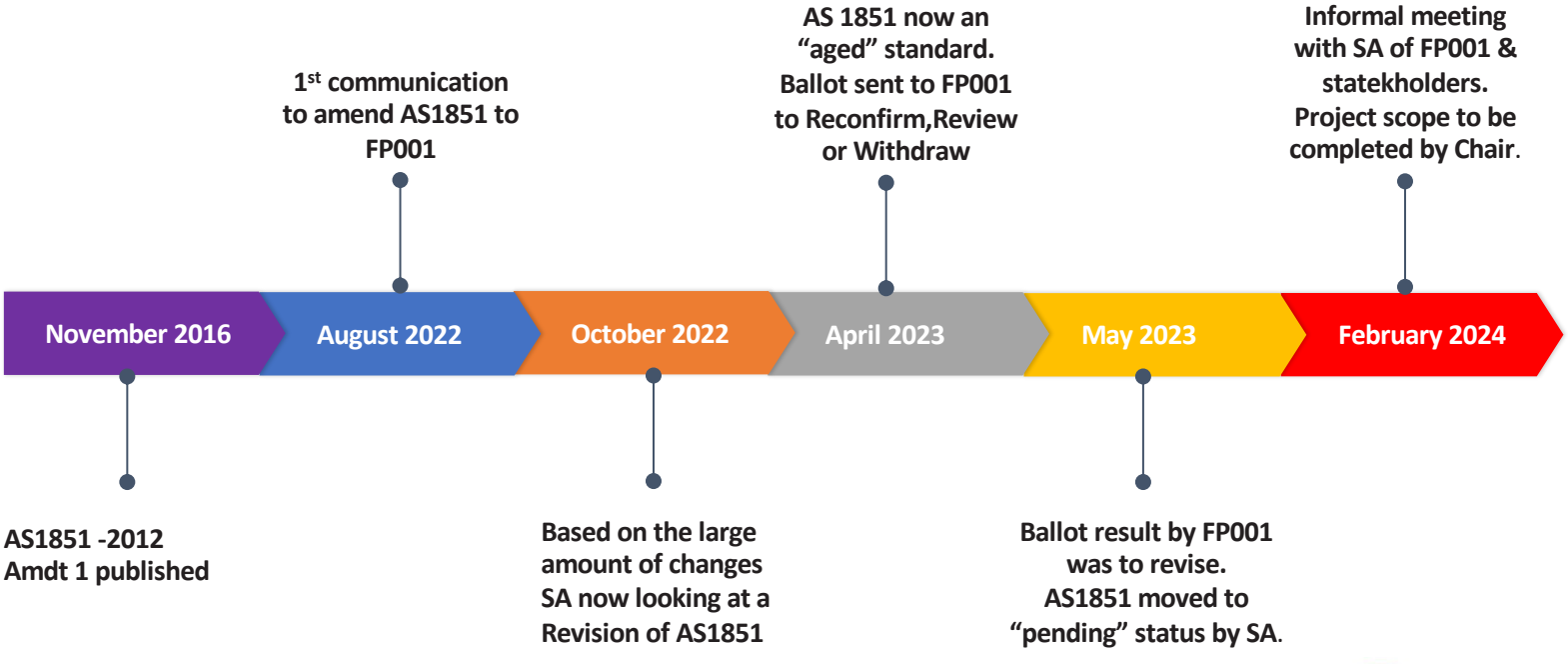
AS1851 - 2012 *Amendment 1* Objective

The objectives of Amendment 1 are to address editorial errors and baseline data.

Since its implementation, it became clear that baseline data in AS 1851—2012 had not been interpreted correctly by the fire protection industry. As such, FP-001 has revised this to clarify the intent of the committee.

The definition of baseline data and Clause 1.8 have been updated to reflect that the baseline data required by AS 1851—2012 is only what is required to verify the result of a service activity and only required where such baseline data was required by the approved design

AS1851 -2012 timeline since November 2016



SA = STANDARDS Australia

So where is the new AS1851 at?

FP001 - Nominating Organization's with voting rights

How is a project selected to proceed?

All projects are selected based on four key criteria:

1. Net benefit case
2. Well-defined scope of work
3. Stakeholder consultation and support
4. The availability of Standards Australia resources

Standards Development Process

Project Approval

STAGE 1

Purpose:	Approve and setup project
Actions:	Proponent engages with Standards Australia Engagement Manager for direction with drafting proposal form, then seeks advice from relevant stakeholders as part of the proposal consultation
Stage End:	Completion of project details including Project Manager assignment and registration of proposal

Project Set Up

STAGE 2

Purpose:	Confirm project scope and objectives
Actions:	Project kick-off meeting with technical committee and project is baselined
Stage End:	Committee agrees on project scope, timeframes, and responsibilities. The Project Manager and Committee proceeds to the drafting stage

Standards Development Process

Drafting

STAGE 3

Purpose: Develop draft for public comment

Actions:
- Develop draft, complete styling and editing as per SG-006
- Committee prepares draft standard

Stage End: Standards Australia Project Manager submits the draft for public comment

Public Comment

STAGE 4

Purpose: The draft document is made available for public review and comment for nine weeks

Actions:
- Committee resolves comments after nine weeks
- Public comment resolution meeting

Stage End: Draft is amended by committee to reflect any additional changes

Standards Development Process

Ballot

STAGE 5

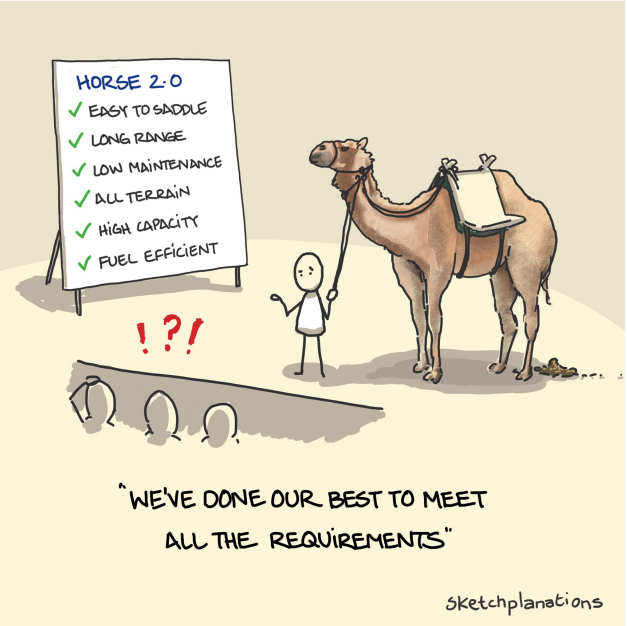
Purpose:	To endorse draft for publication
Actions:	All committee members have 2 weeks to submit a ballot to approve progression for publication
Stage End:	2 weeks ends with vote complete

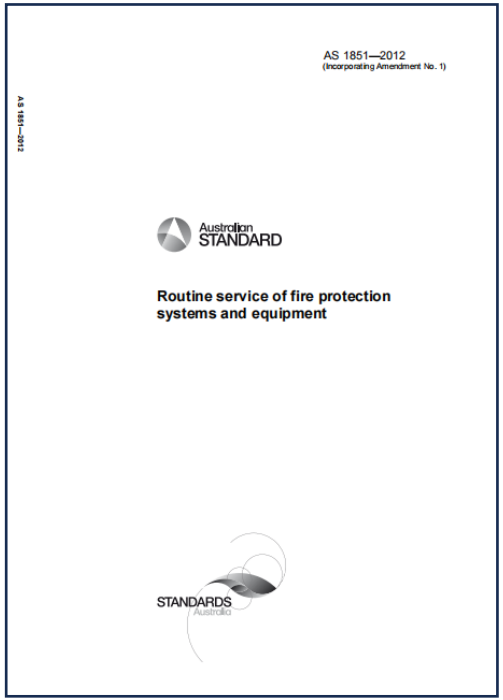
Publication

STAGE 6

Purpose:	To publish a Standards Australia document
Actions:	Publication of document
Stage End:	Standards Australia document is published

Design by committee – sometimes it works …….





High Level feedback for change for AS1851

The following slides provide high level details on proposed changes, clarifications, or editorial corrections to a new AS1851.This data has been collated from FPA Australia members and TAC's feedback.

Any *proposed changes will still be required to go through the full standards process to be either accepted, amended or deleted.*

AS1851 – 2012 Section 1 Scope & General

- Allow electronic records to be included as an option. AS2293.1 2018 already allows this option.
- Merge Non-conformance & Non-Critical in the defect categories.
- Add an appendix of defect examples for each defect category. Informative and/or Normative
- Should passive defects have a different categorization pathway than active systems.
- Issues around what stamping a maintenance tag and compliance implications for measures that have this as their record option, and that summary records are not located with this equipment.
- Should the yearly condition report content be amended to reflect the building regulators requirements & processes? NSW AFSS, VIC AESMR, QLD Occupier's statement etc.
- More guidance on system interface tests, with some real-life examples in an appendix by either building type, system complexity, or by system type.

AS1851 – 2012 Section 1 Scope & General

- Provide a definition of a system interface test, & that it can also be known as a full function fire test FFFT.
- Guidance on performing a system interface tests when there is no cause & effect matrix.
- Adverse operating environments is the detail sufficient, and could the examples be widened? More examples such as is an extremes of temperature range?
- Routine service records could they be rationalised? Why have 4 service record options: logbooks, tags, labels or summary record? Passive fire & smoke systems requires logbook, label and summary record. Doesn't a summary record or a logbook have the similar content?

AS1851 – 2012 Section 1 Scope & General

- Consider inclusion of labels and summary records for some mechanical services items
- Require the use of tags and labels to be used the means to illustrate that the routine service activities for components of fire sprinkler systems such as alarm valves, pressure gauges, flow switches, remote test valves, isolating valves, pressure switches, etc. We need evidence these activities are being done.
- Items sit within tables that are above the frequency of the specified routine eg 2 yearly battery changes
- Baseline data should include a system interface diagram and the relevant cause and effect statements (see Appendix D) which requires conversion to a matrix in order to effectively test the system, plus a schedule indicating the correct fire mode operation of all components, such as fans and dampers, and the required performance parameters of the system (see Appendix H).

AS1851 – 2012 Section 2 Automatic Fire Sprinkler systems

- Include routine service tables for FPAA101D and FPAA101H systems in AS 1851 based on the material from FPA Australia.
- Should a separate combined systems section and/or tables should be developed for the routine service of combined sprinkler and hydrants systems.
- Introduction of a table for wall wetting drencher sprinkler systems with less than 11 heads to better reflect what AS2118.2 design allows needs to be considered.
- The sprinkler booster routines should be the same as for the hydrant system. Amend the routines so they are the same for both sprinklers and hydrants.
- How should the results of the survey be recorded? Is it a checkbox Yes/No that it has been undertaken?
- The monthly service only covers a visual check of the general condition, obstruction and check for the stortz adaptor. There isn't a monthly routine for hydrant boosters. Should there be a monthly check of the sprinkler booster. Only 6-monthly, annual, 5-yearly as applies to the hydrant boosters. Should also apply to combined hydrant/sprinkler booster assemblies.

AS1851 – 2012 Section 2 Automatic Fire Sprinkler systems

- Should the sprinkler booster 6-monthly routine should reflect the hydrant booster routines. This should also apply to combined hydrant/sprinkler booster assemblies
- Do we need to consider nitrogen systems and their maintenance requirements when fitted to a sprinkler system?
- Should the sprinkler booster 5-yearly routine should reflect the hydrant booster 5-yearly routines. Could this also apply to combined hydrant/sprinkler booster assemblies
- Are there any activities in the Yearly that could be moved to 5-Yearly
- Water supply valves are often in difficult to reach locations can be monitored or are strapped and locked in the required position. Change from monthly to yearly.
- Non-return valves operate effectively beyond 5 years and cause no safety issue where there is leakage. Many valves are difficult or impossible to renew valve seatings and gaskets. Amend to "if necessary"

AS1851 – 2012 Section 2 Automatic Fire Sprinkler systems

- We need to explain that the 25Y test samples need to be from multiple locations to be truely representative.
- There seems to be some ambiguity regarding the specific locations for obtaining the 14 samples. For instance, if there are 14 valve sets, the question arises whether we should extract 14 samples from each valve set or two samples collectively from the 14 valve sets. If the latter approach is chosen, how do we ascertain that these are indeed the oldest sprinkler heads covering the 8000 square meter area associated with that valve set? Alternatively, should we extract 14 samples from different areas within the 8000 square meters, each connected to a same valve set? It's evident that additional clarity is required in order to establish a consistent testing procedure.
- We now know that some fire fighting foams are unsafe. We need to review the test methodology for handling foam. Also need to record baseline data for foams such as the storage container type, is it open to the environment, date of installation, foam make, type, batch number, last test date, result of last test, etc.

AS1851 – 2012 Section 3 Fire Pumpsets

- Review the replacement of batteries every two years. This can be pushed out further (every 5 years) if we use batteries that are designed for motor start applications.
- Consider fuel testing and oil testing to determine any conditions that could adversely affect the motor operation.
- Simplify the tables to make them specifically a test function, remove all commentary that describes how to do a thing
- Check the inline coolant filters on motors on a 6-monthly basis and check the water flow.
- Item 1.11 refers to checks for the pump controller. It doesn't check that there is no auto stop function installed. This is often found when a Differential style pressure switch is installed. Add item (c) Check that there is no auto stop function.
- Simplify and delete six-monthly servicing.

AS1851 – 2012 Section 3 Fire Pumpsets

- Requirement to run pump-sets @ 130% duty flow can often not be achieved in NSW and is misunderstood. AS2941-1995 Appendix C has a worked example of calculating 130% flow. This flow is not derived from 100% of system duty but 100% of pump duty. The required figures are calculated at the design stage to choose a satisfactory pump. If 100% flow and pressure are achieved further flow and pressure can be achieved via booster and Fire Brigade pumping appliances. Remove requirement to flow at 130%.
- Flowing the pumpset to 130% is not practical given the risk of flooding and the water wastage that occurs when testing. Flow test to a fixed duty only.
- Suggest specific checks for ventilation are added into the list (noting reference to the room temperature however in fire conditions the temperature would continue to rise should the ventilation system be inoperable) - Proving compliance/combustion air/heat rejection. The interface, control and user interface is often overlooked. Suggest reference for technician to ensure ventilation is operating and associated automatic controls work.

AS1851 – 2012 Section 3 Fire Pumpsets

- Due to site drainage capabilities it will not always be possible to run the pump for a total run time of 30 min. May require major upgrades to stormwater drainage etc. Will be at times cost prohibitive to achieve. Additional text to 3.2 (iv) Where site drainage is capable of keeping up with flow
- Can we remove redundant test things for example "air-temperature around the intake manifold“
- MUST consider pump cavitation when we conduct the full flow test. Running a pump with zero flow could lead to cavitation, that could lead to a catastrophic failure of the pump.
- Delete third paragraph of clause 3.4.5.1 and replace with "Monthly service to pumpsets that are only dedicated to Fire Hose Reel systems, and are not part of any other wet system such as Hydrants or Sprinkler systems, is not required to be carried out. These Fire Hose Reel dedicated pumpsets only requires the six-monthly frequency service.
- Test books and service sheets should match AS1851

AS1851 – 2012 Section 4 Fire Hydrant systems

- Hydrant pressure reducing valves have been missed on the 5 yearly
- Consider the frequency requirements of the water supply flow test, pump appliance flow test and hydrostatic pressure test. Should they be done less often?
- Review Section 4 to identify whether dry hydrant systems can/should be maintained using the current requirements and/or whether additional items (or even new tables to contain the specific existing and new items) are required.
- The flow test requirement for a combined system equals the sprinkler requirement + the hydrant requirement, within a pressure zone.
- Hydrostatic test at 1.5 x working pressure does not give a duration. Include a duration for the hydrostatic test

AS1851 – 2012 Section 4 Fire Hydrant systems

- Simplify standard and delete Table 4.4.1 and amend Clause 4.4 to state Hydrant Systems with Pump-sets - Undertake pump-set service activities in accordance with Section 3.
- There is currently a monthly service routine for Fire Hydrants. This outlines tasks required if a pump is installed. This table in duplicated from table 3.4.1 and so might be redundant. Remove the monthly service schedule for Fire Pumps as the tasks are covered under Section 3.
- Change 2.13 to Hydrant Hose Connections(a) Ensure that Hose Connections are in line with local brigade requirements(b) Verify that each Hydrant has the same Hose Connection type as the Hydrant Booster.“
- It is commonly not possible to flow at the most remote hydrant without a portable tank with the associated water damage issues. Allow for testing of system utilizing friction loss and head pressure calculations. The fixed meter test facility allows this in any case.

AS1851 – 2012 Section 4 Fire Hydrant systems

- Flow most hydraulically disadvantaged hydrants, this may mean two hydrants at opposite ends of the site. Most likely the brigade would use hydrants around the involved building, not at opposite ends of site. Flow the most disadvantaged hydrant and the nearest ones.
- "There is currently no clear requirement on the testing of street hydrants where the said hydrant:- fulfils the entire role for the ""hydrant system"" as per the BCA etc. Or the said hydrant is the sole water supply for a system designed under Ordinance 70 or a Dry Hydrant System Please note that this could also fall under Yearly Testing as per Table 4.4.3 Item 3.7. But suggesting yearly testing of underground street hydrants would cause unprecedented grief to many in the fire industry. Five (5) yearly testing seems a more realistic approach. "CONDUCT a flow test through booster connection or underground street hydrant (if applicable) in accordance with AS2419.1 or to approved design Standard

AS1851 – 2012 Section 5 Water Storage tanks

- The requirement for tank inspections is unclear. Are we to do an underwater tank inspection (yes) suggest if we need to check the vortex inhibitor.
- Items listed to be checked are all important. However, it is not practical or thorough enough to be able to check items 3.11, 3.12, 3.21 to 3.34 without entering the tank or using an underwater robot. Underwater robotic inspection services are relatively inexpensive. In most tanks 25kL or more, an inspection through the manhole is insufficient to pick up faults described in the above items on the table. "Under 5.4.3 add, ""Inspections should include photographic/video records of any anomalies with the liner or internals of the tank. This can be achieved using a diver, underwater Remote Operated Vehicle (ROV), or if the tank is empty.“
- Undertake the 10 Yearly routine or an ROV inspection on concrete tanks on a 5 Yearly frequency.
- Propose for consideration of defining ''entry''

AS1851 – 2012 Section 6 Fire Detection & Alarm systems

- AS ISO 7240.23 Visual Alarm Devices (VADS) incorporation into AS1851
- Aspirating smoke detection – AS1851 doesn't detail the inspection and testing of ASD in enough detail. The suggestion to incorporate manufacturer servicing requirements into the testing frequency would be sufficient in order to ensure that they systems are being inspected as required.
- Battery discharge test (3.13) verses replacing the batteries. Should there be two options discharge test or replace the batteries? Industry practise indicates the need to review this.
- Grammatical clarification. Currently might be read to mean all detection and alarm systems require 6-monthly inspection, but this only applies for those with Special Hazard Systems. Clarify the wording to: Routine service for fire detection and alarm systems WITH special hazard systems

AS1851 – 2012 Section 6 Fire Detection & Alarm systems

- "SIX-MONTHLY ROUTINE SERVICE SCHEDULEFIRE DETECTION, ALARMS AND CONTROLS FOR SPECIAL HAZARD SYSTEMS"The heading should be revised to "Six-Monthly Routine Service Schedule for Special Hazard Systems" as it is distinct from a standard Fire Detection System. All the questions pertain to gas systems and not general fire detection systems.
- Annual Detection Annual 3.4 "Where other warning devices are used as the alarm-indicating devices, INSPECT all devices to ensure that they are in place" is redundant wording. Where other devices are used, check they are there. Remove item 3.4 or reword to the following: INSPECT all devices to ensure they are correctly installed and functioning as required.
- Most modern Fire Detection & Alarm systems are fitted with a charging circuit designed to AS4428 or AS7240 and if this is the case, then the self-test of the batteries should be sufficient for the battery test. Where not fitted, then do the battery test set out in Item 3.7
- Removal of Item 3.14 from Table 6.4.1.4 as this is already listed under Table 6.4.2.2 and does not need to be listed twice. Causing confusion to layman.

AS1851 – 2012 Section 6 Fire Detection & Alarm systems

- Occupant warning system sound pressure level MEASURE and record the sound pressure level from at least one reference point for each amplifier used and ensure at each reference point the measured value is consistent with the baseline sound pressure level at each reference point (see AS 1670.1).This is Yearly test and should stay yearly.
- "Action required is ""Where the system is monitored, TEST that the loss of each of the monitoring links is indicated at the monitored site. Include more detail on how this is to be done e.g. if the ASE has a telephone line and sim, disconnect the line and remove sim.
- "item 2.7 in the table states "CHECK the manufacturer's requirements for battery replacement and replace the battery if required. "Change the text to state "inspect all types of batteries for signs of deformation and other physical abnormalities e.g. bulging, leaking and if found then replace the batteries "
- The Yearly EWIS item 2.17 relates to the sound audibility in all areas of a building. AS 1670 contains the required readings in certain applications. These requirements should clearly be stated in AS1851 against this item so that the testing technician can clearly see what the requirement is. Add DB requirements to Item 2.17

AS1851 – 2012 Section 7 Special Hazards systems

- Review the tables, simplify and remove duplicate or redundant content.
- Suggest a new item that requires a valve overhaul at least every 10 years for valves with moving parts only. new item :-"cylinders fitted with valves which contain moving parts are required to have the valve overhauled at least every 10 years “
- Fan test-Propose for review - fan test to be of the building not of the system

AS1851 – 2012 Section 8 Delivery Lay Flat Hose

- There is no pass / fail criteria
- Consider moving the requirement for yearly pressure testing lay-flat fire hoses to 5-yearly
- Should this section be amalgamated with Fire Hose Reels to create “fire hose “section?

AS1851 – 2012 Section 9 Fire Hose reels

- Tables 9.4.1 and 9.4.2 - Make the tables the same format as those in other sections with a results column.eg Result , Pass/Fail; Comments.

AS1851 – 2012 Section 10 Portable & Wheeled fire extinguishers

- Could CO2 extinguishers not located in adverse operating environments have a pressure test frequency of 10 years instead of 5 years.
- Clarify the wording in clause 10.2.10 on evidence of the service level shall not be applied to the service tag or label.
- Make the table title say "All Extinguisher Types" and have a 6-monthly check accordingly.
- Add additional tables for specific types of extinguishers (if required) such as a new table for wheeled fire extinguishers. This would be similar to how its done in Section 2 for sprinklers.
- Table 10.4.1 & 10.4.2 Make the tables the same format as those in other sections with a results column

AS1851 – 2012 Section 10 Portable & Wheeled fire extinguishers

- Is overdue Pressure testing of extinguishers classed as a minor non conformance or slight defect ? Clarify & verify process on reporting of out of tolerance & over due Pressure testing of Extinguishers in clause 10.2.10
- Table 10.4.1, Item 1.9 - WEIGH the extinguisher to determine that it is fully charged. Change this requirement from 6-Monthly to; CO2 - Yearly and all others (Pressure Gauge Fitted), do not weigh.
- Further clarity is required on what the actuating device that needs to be inspected is.
- Stored pressure foam currently to recharge annually. Should be changes to rechaerge as per manufactures recommendation
- The definition of 'Fresh' agent is unclear.
- The current scope is to carryout out a hydrostatic test of the hose. This is not practical or cost affective for the client.

AS1851 – 2012 Section 11 Fire Blankets

- Change the title to read "SIX MONTHLY AND YEARLY SCHEDULE“
- While implied that the blanket conforms to AS3504 for design, there is no requirement for the design standard to be marked on the blanket/storage holder. Recommend adding to check and indicate Pass or Fail for the markings to display compliance with AS3504
- Table 11.4 Make the table the same format as those in other sections with a results column

AS1851 – 2012 Section 12 Passive Fire & Smoke systems

- Add a new table for the inspection of perimeter exit gates. Clause 12.1 references “required passive fire and smoke systems, but are not limited to, Items (a) - (g). While not specifically referenced, perimeter gates widely used in aged care facilities are not specifically referenced
- The requirement to access ceiling voids and voids with access panels while reading in conjunction with Section 1 which states a survey is typically undertaken from floor level, are counter intuitive.
- Fire Dampers can be inspected over a 5-year period but fire seals typically installed around and next to fire dampers have no such allowance.
- No mention of the hinge tearing off the frame. Include "check the door frame and hinge connection is not compromised“
- No mention of checking the frame for corrosion. Include wording to check the frames for corrosion
- Exclusions for inaccessible elements should be limited to instances where there is sufficient certification from the construction to demonstrate that the concealed work was compliant before it was concealed. This exclusion should not accommodate inaccessible intumescent fire dampers

AS1851 – 2012 Section 12 Passive Fire & Smoke systems

- Provide a benchmark of fire exit doors and path of travel. We currently have no frequency or test regimes for fire exit doors. It could be strongly argued that this is the most critcal item in respects to life safety of occupants in a building
- Fire Shutters :The requirements for physical testing of the shutters need to be extended to a reasonable period (i.e. 5-10yrs) to allow for the budgeting of the significant cost associated with this requirement.
- Suggest rewording… 'Fire and Smoke damper routine service and test requirements have been outlined in Section 13’.
- Note reference to vermiculite, cement, etc . Suggest inclusion of reference to fire rated wraps and associated bands/straps. Suggest to include a reference to fire rated wraps and bands/straps.

AS1851 – 2012 Section 13 Fire & Smoke Control features of Mechanical services

- Fire-protected air ducts are associated with systems scheduled in Section 13. Reference to 12.4.7 should be made within Section 13 to ensure it's not overlooked or inadvertently excluded due to a contractual reference to Section 13.
- Baseline data should include a system interface diagram and the relevant cause and effect statements (see Appendix D) which requires conversion to a matrix in order to effectively test the system, plus a schedule indicating the correct fire mode operation of all components, such as fans and dampers, and the required performance parameters of the system (see Appendix H).
- Introduce inspection of subducts, including packing, flanges, corrosion, etc – similar to fire dampers and other passive elements. Consider similarity to Clause 12.4.7
- Remove sentence or further clarify that it does apply to sections 13.4.1.16 & 13.4.1.17 kitchen exhaust systems regardless of whether they operate in a fire & smoke control mode or not

AS1851 – 2012 Section 13 Fire & Smoke Control features of Mechanical services

- Suggest removal of AS1668.2. It does not cover any ESM or any systems required to operate in fire mode (kitchen and exhaust are covered in part 1).
- Suggest removal of Figure 13.1 and associated references. There doesn’t seem to be any relevant information provided on the figure. Some aspects of a fire damper have been shown (insulation generally now not provided) and other aspects are omitted (breakaway, access provisions, etc).
- Reference or additional commentary should be added for: - previously required systems such as lift shaft pressurisation, air purge, etc - systems required by an FER such as smoke clearance, hot layer smoke control, etc - systems able to operate in fire mode such as refrigeration plant exhaust, fume exhaust systems, battery exhaust, medical / operating theatres etc. Commentary for consideration should be made in this regard.
- There is reference to Clause 13.5 only. This clause doesn’t seem to exist. Suggest deleting 'Clause 13.5 only'.

AS1851 – 2012 Section 13 Fire & Smoke Control features of Mechanical services

- Reference is made for monthly testing applying to kitchen and outdoor intakes only. Monthly testing may be required as part of a management approach or as agreed by the responsible entity and service contractor. Suggest to remove the specific reference to kitchen exhausts and outdoor air intakes. If it is to remain suggest removal of 'outdoor' as this may apply to 'outside' intakes or relief/exhausts.
- Table 13.4.1.1 is referenced in the text,but missing from the Standard. Revisit change from inclusion of Table 18.4.1.1 in 2005 edition
- Suggest to remove reference to remote monitoring in this section. Perhaps it could be added as a general statement for all service and maintenance activities for the competent technician to consider it use.
- "Assign fire dampers and smoke dampers into separate tables.Ensure notes to both tables eliminate confusion with suggested 20% sample (which is currently limited to ‘fire dampers’, but referenced in items 3.10 and 3.11 for smoke dampers."

AS1851 – 2012 Section 13 Fire & Smoke Control features of Mechanical services

- There is no reference to combination dampers for fire and smoke protection. Suggest adding an additional note for motorised combination dampers requiring to comply with all relevant aspects of Table 13.4.1.4 for each aspect of the damper, i.e. fire and smoke (or may be air control so that would be 13.4.1.7).
- Six-Monthly testing is required for air control dampers. Why are smoke dampers yearly?
- Item 5.2 and Item 7.2 note the same check yet note different terminology. Is this based on AS1668.1 requirements or is this an editorial item? Consider instances where power drives actuator positions in fire mode and there is no spring return function.
- Refence is made to a 'significant' number of heaters. The number should be stated. Also reference my comments on the fire dampers for associated wording.

AS1851 – 2012 Section 13 Fire & Smoke Control features of Mechanical services

- AS1668.1-1998/2018 4.6 NOISE The noise level in occupied spaces during operation of the smoke control systems(including smoke exhaust fans and air pressurization fans) shall not exceed 65 dB(A).Where the internal occupied ambient noise levels exceed 60 dB(A), the smoke control systems shall not exceed 5 dB(A) above the internal occupied ambient noise levels, to a maximum level of 80 dB(A).Noise levels in fire-isolated exits and car parks, as well as and smoke control zones served by hot layer smoke control systems shall not exceed 80 dB(A). “

AS1851 – 2012 Section 13 Fire & Smoke Control features of Mechanical services

AS1851 – 2012 Section 14 Emergency Planning in Facilities

- Referencing AS3745
- Referencing “emergency plan” rather than emergency response procedures.

AS1851 – 2012 Appendix A Referenced Documents

- Remove reference to AS1668.2. Otherwise add AS1668.4.
- Replace all AS/NZS1668.1 references to AS1668.1.
- Suggest inclusion of the Seismic Standard. Seismic is referenced in AS1668.1 and should be documented in baseline data. Should this be further added throughout the Standard? Consider inclusion.
- Suggest inclusion of the Bushfire Standard. Should this be further added throughout the Standard? Consider inclusion.
- Suggest inclusion of AS1530 Standards for test certificates. Should this be further added throughout the Standard? Consider inclusion.

AS1851 – 2012 Appendix B Routine Service Process

- No comments received.

AS1851 – 2012 Appendix C Not used

AS1851 – 2012 Appendix D Systems Interface Testing

- There is much confusion on how to undertake systems interface testing. To provide greater assistance to industry, this appendix should be reviewed, updated and possibly expanded. Particularly regarding precaution. Review and updated appendix to ensure provides sufficient guidance to industry.
- Baseline data should include a system interface diagram and the relevant cause and effect statements (see Appendix D) which requires conversion to a matrix in order to effectively test the system, plus a schedule indicating the correct fire mode operation of all components, such as fans and dampers, and the required performance parameters of the system (see Appendix H).

AS1851 – 2012 Appendix E Yearly Condition Report

- No comments received

AS1851 – 2012 Appendix F Battery Capacity Testing

- The Battery capacity requirement includes that “L shall be used 1.25 for new batteries and 1.1 for used batteries required to perform for at least 12 months”
- Battery testing procedure in F2.1 & F2.2 is very confusing More details are required in regard to battery testing: What type of device is the battery tester? Does a battery load tester satisfy this requirement?F2.2(e) says “Apply the test load for 25 mins”. What load is applied and why for 25 minutes? If you are using a load tester it normally takes 5 to 10 secs to determine battery condition.
- Differentiate between Standby Batteries and Engine Start Batteries. Consider where the power supply has self-test facilities that this is sufficient to achieve the battery test function.
- Load tester is expensive and difficult to source, is there a specified method of doing this that is practical. This is more costly than replacing the batteries. Most fire companies are not conducting this test. Allow for alternative testing methods i.e. Battery Load Testing.

AS1851 – 2012 Appendix G Fire Detector Testing

- New technology in the form of aspirating smoke detectors (ASDs) with automated testing facilities has been developed which allows for network integrity testing to be undertaken automatically. Therefore, need to update to reflect this like automatic sensitivity testing of point type smoke detectors. Update to reflect desired changes as per technological changes for automated testing facilities as described in PS-08
- "Seeking clarity on how testers / technicians are expected to satisfy this requirement when there is no medium / apparatus on the market that has the ability to measure and record a flame detector’s sensitivity in situ and in accordance with AS7240.10 (Flame Detectors – Point Detectors) product standard and associated classifications (Class 1, 2, 3 & 4) of which detectors have been assessed and verified as conforming with ?As it currently stands, the only option is replacement ?"
- Remove the sensitivity test, if the fire panel can report "out of range" detectors.

AS1851 – 2012 Appendix H Mechanical Services Documentation and Skills

- Suggest inclusion of Mechanical Services baseline data. The requirements are well documented in AS1668.1. Or refer and add to Appendix H.
- Skill set A would be applicable to fans, motors, dampers, and associated components. I agree with H2.2 (a), (b) & (c) but this should be in conjunction with some specific training/assessment & certificate post or during the trade. There are already nationally accredited fire and smoke damper installation, test and certify courses. This would provide evidence to support the understanding of the Standards.
- Skill set B would be applicable to exit pressurisation, smoke exhaust and smoke control systems. I agree with H2.3 (a) & (b) but again the trade or Cert 4 on top of experience will need some sort of specific training, assessment and certificate.
- Add baseline data. The requirements are well documented in AS1668.1 (commissioning data, etc).

AS1851 – 2012 Appendix I Mechanical Services - Guidance

- Mechanical baseline data is referenced in Appendix C. There is no mechanical references in Appendix C. Add to Appendix C or amend to Appendix H.
- The note mentions VAV dampers need not be included in the test. Consider that they are often downstream of a supply air system serving a zone pressurisation system. Consider rewording 'may not need to be included'.
- The note mentions fire contractors provide the mechanical matrix. Consider rewording to delete reference to any designers or contractors.
- Recording action of another smoke zone is not documented in matrixes. Suggest to possibly add more commentary in the Standard if important.
- Add a zone smoke control / pressurisation test sheet. Review all sheets vs AS1668.1 and AS1682?
- Develop an - Example Penetration Schedule

AS1851 – 2012 Appendix J Other Emergency response in Facilities

- No comments received

High Level feedback for change for AS1851

The previous slides provided a high-level details on proposed changes, clarifications, or editorial corrections to a new AS1851.This data was collated from FPA Australia members and TAC's feedback.

Any *proposed changes will still be required to go through the full standards process to be either accepted, amended or deleted*.

Other items may also be added during the project.


Q&A


THANK
YOU!