* To be completed and forwarded to the MFS Community Safety and Resilience Department with BE001, BE003 and BE004 forms.
* **The MFS is unable to commence the PDI (General) Regulation 45 report process until all entries in this form are completed. Where an entry is not relevant, please enter “Not Applicable” or “NA”. If an entire section/table is not applicable, please remove that section/table from the submitted BE002 form. An incomplete form will not be accepted**.
* This form has been provided in Microsoft Word format for your convenience and to assist in expediting the Regulation 45 process. Once downloaded from the website it is no longer a controlled document. Please ensure the latest version of the form is being used, available at: <https://www.mfs.sa.gov.au/community/building-and-commercial-fire-safety/compliance-and-regulation/pdi-regulation-45-building-design-consultation>

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **OFFICE USE ONLY** | **Date received:** | | | | **File No.:** | | |
| **Submitted by:** | **Name:** | | | | **Company:** | | |
| **Development Application number:** | / / | | | | | | |
| **Premises Name & Address:** |  | | | | | | |
| **Owner’s Name:** |  | | | | | | |
| **Council Area:** | Choose an item. | | | | | | |
| **Approving Authority:** | **Company:** | |  | | | | |
| **Contact:** | |  | | | | |
| **Phone:** | |  | | | | |
| **Email:** | |  | | | | |
| **Fire / Building Services Consultant:** | **Company:** | |  | | | | |
| **Contact:** | |  | | | | |
| **Phone:** | |  | | | | |
| **Email:** | |  | | | | |
| **Building Classification/s:** | 1b | Choose an item. | | | 7a | Choose an item. | |
| 2 | Residential: owner-occupier | | | 7b | Choose an item. | |
| 3 | Choose an item. | | | 8 | Choose an item. | |
| 4 | Dwelling in a Class 5, 6, 7, 8 or 9 | | | 9a | Choose an item. | |
| 5 | Choose an item. | | | 9b | Choose an item. | |
| 6 | Choose an item. | | | 9c | Residential care building | |
| **Description of “Other”** | | |  | | | |
| **Building use / occupancy:** | | |  | | | |
| **Type of Construction:** | Choose an item. | | |  | | | |
| **Total floor area:** | **m2** | | | **Max. fire compartment or typical floor area:** | | | **m2** |
| **Large Isolated Building:** | Choose an item. | | | **Max. fire compartment volume:** | | | **m3** |
| **Rise in storeys:** |  | | | **Number of storeys contained:** | | |  |
| **Effective Height:** |  | | | | | | |
| **Brief project description:** |  | | | | | | |

**PROPOSED PERFORMANCE SOLUTIONS**

Please add additional tables as required

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Relevant *Performance Requirement(s)*** | **Relevant *Deemed-to-Satisfy Provision(s)*** | ***Assessment Method* BCA A2.2(2)** |
|  | **BCA-** | **BCA-** | (a)  (b) (i)  FSVM  (b) (ii)  (c)  (d) |
| **Proposed *Performance Solution***  *Details*: | | | |
| **Justification for *Performance Solution***  Qualitative  Quantitative  *Details*: | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Relevant *Performance Requirement(s)*** | **Relevant *Deemed-to-Satisfy Provision(s)*** | ***Assessment Method* BCA A2.2(2)** |
|  | **BCA-** | **BCA-** | (a)  (b) (i)  FSVM  (b) (ii)  (c)  (d) |
| **Proposed *Performance Solution***  *Details:* | | | |
| **Justification for *Performance Solution***  Qualitative  Quantitative  *Details:* | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Relevant *Performance Requirement(s)*** | **Relevant *Deemed-to-Satisfy Provision(s)*** | ***Assessment Method* BCA A2.2(2)** |
|  | **BCA-** | **BCA-** | (a)  (b) (i)  FSVM  (b) (ii)  (c)  (d) |
| **Proposed *Performance Solution***  *Details*: | | | |
| **Justification for *Performance Solution***  Qualitative  Quantitative  *Details*: | | | |

**MFS Built Environment Section Policies & Guidance Documentation**

Built Environment Section Policies, Guidelines and Equipment Specifications may be downloaded from:

<https://www.mfs.sa.gov.au/community/building-and-commercial-fire-safety/guidelines-and-information>

|  |  |  |  |
| --- | --- | --- | --- |
| **Valid** | **Document** | **Content Applied** | **Comments** |
| **Equipment Specifications** | | | |
|  | SAMFS Equipment Specification 001 *Storz Couplings, Adaptors & Reducers* |  |  |
| **BES Policies** | | | |
|  | Policy 006 *Control & Indication for Diesel & Electric Fire Pumps* |  |  |
|  | Policy 014 *Above Ground Water Storage Tanks for Fire Fighting Purposes* |  |  |
|  | Policy 037 *Fire Alarm Conditions of Connection* |  |  |
| **BES Guidelines** | | | |
|  | *MFS Fire Safety Guideline for Building Fire System Precis* |  |  |
|  | *MFS Fire Safety Guideline for Car Stackers* |  |  |
|  | *MFS Fire Safety Guideline for Childcare Facilities in Multi-storey Buildings* |  |  |
|  | *MFS Fire Safety Guideline for Dry Fire Hydrant Systems* |  |  |
|  | *MFS Fire Safety Guideline for Emergency Evacuation of Cinemas* |  |  |
|  | *MFS Fire Safety Guideline for Hot Smoke Tests* |  |  |
|  | *MFS Fire Safety Guideline for Marina Firefighting Systems* |  |  |
|  | *MFS Fire Safety Guideline for Recyclable Metal Stockpile Management* |  |  |
|  | *MFS Fire Safety Guideline for Rubber Tyre Storage* |  |  |
|  | *MFS Fire Safety Guidelines for Scissor Stairs* |  |  |
| **AFAC Guidelines** | | | |
|  | *Design, installation and maintenance requirements for dry hydrants* |  |  |
|  | *Fire Safety for Impulse (Jet) Fans in Car Parks* |  |  |
|  | *Fire Safety Principles for Massive Timber Building Systems* |  |  |
|  | *Fire Safety Requirements for Automated Vehicle Parking Systems* |  |  |

**SYSTEM INFORMATION**

Please tick all that apply and provide details as appropriate. Delete tables that do not apply.

| **BCA E1.3 – Fire Hydrants** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Performance Solution/s applicable | |  | | | | |
| Installed in accordance with AS 2419.1-2005 | |  | | | | |
| System arrangement: | Onsite – hydrants only  Combined hydrant & sprinkler system  Street hydrants (in-ground or pillar hydrants)  Ring main  Multiple pressure zones  Dry fire hydrant system | | | | | |
| Booster/s | Location (hydrant / combined):  Location (sprinkler only): | | | | | |
| Street hydrants  (please list all required for coverage, add rows as necessary) | *Type:* | *Street name:* | | | *Main size:* | *SA Water ID#* |
| Choose an item. |  | | | mm |  |
| Choose an item. |  | | | mm |  |
| Dry fire hydrant system | System type | Choose an item. | | | | |
| Required street hydrant | Distance from booster inlet: | | | m | |
| Hydrant type: | | | Choose an item. | |
| Street name: | | |  | |
| Main size: | | | mm | |
| SA Water ID# (for plug/pillar): | | |  | |
| SA Water flow test conducted | | |  | |
| Flow achieved @ 200 kPa: | | | L/s | |
| Distance of alternative street hydrant from booster inlet: | | | | m | |
| Design flow rate per hydrant outlet: | | | | L/s | |
| System pipe size: | | | | mm | |
| Number of risers: | | | |  | |
| Total volume of system pipework: | | | | L | |
| Automatic air release valves at all high points | | | | | |
| Air release valve type: | |  | | | |
| Hydrant valve security measure: | | Choose an item. | | | |
| Other details: |  | | | | |
| Water supply |  | | | | | |
| Town main | Connection size: | mm dia. | | | | |
| Street name: |  | | | | |
| Town main size | mm dia. | | | | |
| Tank/s | Serving: | Choose an item. | | | | |
| Number: |  | | | | |
| Location: |  | | | | |
| Quickfill: | Auto | | Manual | | |
| Remote tank level indication at booster | | | | | |
| Pumps (main) | Serving: | Choose an item. | | | | |
| Number – electric: |  | | | | |
| Number – diesel: |  | | | | |
| Location: |  | | | | |
| Number of pressure zones: |  | | | | | |
| Booster relay pump | Number: |  | | | | |
| Location: |  | | | | |
| Controls & pressure gauge at booster | | | | | |
| Meets design requirements of AS2419.1-**2017** | | | | | |
| Pressure reducing stations | Number: |  | | | | |
| Location/s: |  | | | | |
| Drainage for testing purposes | Details: |  | | | | |
| Other relevant details: |  | | | | | |

| **BCA E1.4 – Fire Hose Reels** | |
| --- | --- |
| Performance Solution/s applicable |  |
| Installed in accordance with AS 2441-2005 |  |
| Water supply | Choose an item. |
| Other relevant details: |  |

| **BCA E1.5 – Sprinkler System** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Performance Solution/s applicable | |  | | | |
| Installed in accordance with: | | Choose an item. | | | |
| Other details of sprinkler installation standard: | |  | | | |
| Extent of sprinkler installation: | | Choose an item. | | | |
| Other details of sprinkler installation extent: | |  | | | |
| Specialist fire suppression system installed: | | Choose an item. | |  | |
| Specification E1.5a concessions applied | | List those applicable: | |  | |
| Hazard Classification: | *Classification:* | | *Area/s served:* | | |
| Light Hazard | |  | | |
| Ordinary Hazard Group 1 | |  | | |
| Ordinary Hazard Group 2 | |  | | |
| Ordinary Hazard Group 3 | |  | | |
| Ordinary Hazard Car stacker | |  | | |
| High Hazard | |  | | |
| ESFR / Suppression Mode | |  | | |
| Drenchers | |  | | |
| Exposure/window protection | |  | | |
| Deluge | |  | | |
| Other (provide details) | |  | | |
| Booster (sprinkler only) location: |  | | | | |
| Concealed space sprinklers |  | | | | |
| Underfloor sprinklers | Served by: | | Choose an item. | | |
| Individual sprinkler control valves | Location/s: | |  | | |
| Car stacker | Location of control/isolation valve: | |  | | |
| Jet impulse fans in sprinkler-protected area | | Automatic shutdown on detection of smoke | | | |
| Annubar test facility | Location: | |  | | |
| Gaseous suppression system installed to AS ISO 14520-2009 | Area/s served: | |  | | |
| Extinguishing agent: | |  | | |
| Separation between sprinkler-protected and non-sprinkler-protected areas | | FRL provided: | |  | |
| Other relevant details: |  | | | | |
| Water supply | Independent water supply  *[detail below]* | | As for hydrant system above  ***[no further details required – delete rows below]*** | | |
| Town main | Connection size: | | mm dia. | | |
| Street name: | |  | | |
| Town main size | | mm dia. | | |
| Tank/s | Serving: | | Choose an item. | | |
| Number: | |  | | |
| Location: | |  | | |
| Quickfill: | | Auto | | Manual |
| Remote tank level indication at booster | | | | |
| Pumps (main) | Serving: | | Choose an item. | | |
| Number - electric: | |  | | |
| Number – diesel: | |  | | |
| Location: | |  | | |
| Number of pressure zones: |  | | | | |
| Pressure reducing stations | Number: | |  | | |
| Location/s: | |  | | |

| **BCA E1.6 – Portable Fire Extinguishers** | |
| --- | --- |
| Performance Solution/s applicable |  |
| Installed in accordance with NCC / AS 2444-2001 |  |
| Other relevant details: |  |

| **BCA E1.8 – Fire Control Centre** | |
| --- | --- |
| Performance Solution/s applicable |  |
| Fire control centre | Fire control room |
| Location: |  |
| Other relevant details: |  |

| **BCA E1.10 – Provision for Special Hazards** *Special problems for fighting fire* (Note: Where Cl. E1.10 is applicable, a Performance Solution is required to document and address the special hazard/s identified) | |
| --- | --- |
| Performance Solution/s applicable |  |
| Special hazards identified: | Automated racking storage system  Battery energy storage system (BESS)  Car stacker  Dangerous Goods storage  Electric vehicle charging station  Other: |
| Location: |  |
| Details of hazard/s: |  |
| Mitigation measures: |  |

| **BCA E2.2a – Automatic Detection System** | | | |
| --- | --- | --- | --- |
| Performance Solution/s applicable | |  | |
| Installed in accordance with AS 1670.1-2018: | | Choose an item. | |
| Installed on an extended grid basis per AS 1668.1-2015 in the following area/s: | |  | |
| Installed in accordance with AS 3786-2015 | |  | |
| Installed in accordance with Spec E2.2a Cl. 6 (smoke detection for smoke control systems) | |  | |
| Monitored system | | Choose an item. | |
| Main FIP location: | |  | |
| Other controls located at/with FIP: | | Remote pump control and indication panel  Remote tank level indication  Fire fan control panel  Carpark / Car stacker exhaust controls  Car stacker controls  Roller shutter controls | |
| Other panels provided  (please add rows as necessary) | *Type:* | | *Location:* |
| Choose an item. | |  |
| Choose an item. | |  |
| Devices: | *Type:* | | *Area/s served:* |
| Smoke detectors (AS 1670) | |  |
| Aspirated smoke detection | |  |
| Thermal detectors | |  |
| Carbon monoxide | |  |
| Optical beam | |  |
| Linear heat detectors | |  |
| Infrared or UV | |  |
| Multi-criteria *(detail type & setting)* | |  |
| Jet fan in-duct smoke detector *(non-latching)* | |  |
| Smoke alarms (AS 3786) | |  |
| Manual call points | |  |
| Other *(provide details)* | |  |
| SOUs (residential) | Detection arrangement: | | Choose an item. |
| Device locations (in SOUs) | | Choose an item. |
| Device locations (public areas) | | Choose an item. |
| Sound pressure levels: | | 75 dB(A) at bedhead  ***(required if MFS monitored)***  Achieved via:  Sounders in bedrooms  Speakers in bedrooms |
| 85 dB(A) at SOU door (Cl. 3 system) |
| 100 dB(A) at SOU door (Cl. 4 system) |
| Programming of SOU detectors: | | Choose an item. |
| False alarm mitigation measures: | | Choose an item.  Ducted, mechanical kitchen exhaust |
| Occupant warning system | Type: | | Choose an item. |
| MECP, location: | |  |
| WIPs | |  |
| Other relevant details: |  | | |

| **BCA E2.2b – Smoke Exhaust System** (refer Smoke Hazard Management Table later for further details) | | | |
| --- | --- | --- | --- |
| Performance Solution/s applicable | |  | |
| Installed in accordance with: | | Choose an item. | |
| Location of system/s | |  | |
| Smoke exhaust fans sequentially operated, via: | | Choose an item. | |
| Make-up air | Low level | | *Details / Method:* |
| Permanent openings | |  |
| Automatic opening | |  |
| Manual operation required | |  |
| Perforated roller shutters | | Open free area: |
| Smoke reservoirs / Separation of smoke zones | Permanent smoke baffles | | Depth: |
| Smoke curtains | | Depth: |
| Activated by: |
| Guide rails |
| Delayed activation |
| Fail safe closed |
| Other relevant details: |  | | |

| **BCA E2.2b – Natural Ventilation** (refer Smoke Hazard Management Table later for further details) | | | |
| --- | --- | --- | --- |
| Performance Solution/s applicable | |  | |
| Ventilation achieved via: | | Choose an item. | |
| Permanent ventilation openings | Floor area served: | | m2 |
|  | Minimum free area of opening/s: | | at least 1.5% of floor area  \_\_\_\_ m2 |
|  | Low level make-up air: | | at least 1.5% of floor area  \_\_\_\_ m2 |
| Make-up air | Low level | | *Details / Method:* |
| Permanent openings | |  |
| Automatic opening | |  |
| Manual operation required | |  |
| Perforated roller shutters | | Open free area: |
| Smoke reservoirs | Permanent smoke baffles | | Depth: |
| Smoke curtains | | Depth: |
| Activated by: |
| Guide rails |
| Fail safe closed |
| Other relevant details: |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **BCA E2.2 – Other** (refer Smoke Hazard Management Table later for further details) | | | |
| Performance Solution/s applicable | |  | |
| Zone pressurisation system | | Installed in accordance with AS/NZS 1668.1-2015 | |
| Stairwell pressurisation system | | Installed in accordance with AS/NZS 1668.1-2015 | |
| Atrium smoke control system | | Installed in accordance with BCA G3.8 | |
| Performance based design | |
| Car stacker smoke control system, via: | |  | |
| Make-up air | Low level | | *Details / Method:* |
| Permanent openings | |  |
| Automatic opening | |  |
| Manual operation required | |  |
| Perforated roller shutters | | Open free area: |
| Smoke reservoirs | Permanent smoke baffles | | Depth: |
| Smoke curtains | | Depth: |
| Activated by: |
| Guide rails |
| Delayed activation |
| Fail safe closed |
| Other relevant details: |  | | |

| **BCA E2.3 – Provision for Special Hazards** *Additional smoke hazard management measures* (Note: Where Cl. E2.3 is applicable, a Performance Solution is required to document and address the special hazard/s identified) | |
| --- | --- |
| Performance Solution/s applicable |  |
| Special hazards identified: | Automated racking storage system  Battery energy storage system (BESS)  Car stacker  Dangerous Goods storage  Electric vehicle charging station  Other: |
| Location: |  |
| Details of hazard/s: |  |
| Mitigation and/or smoke hazard management measures: |  |

| **BCA E3.4 – Emergency Lift** | |
| --- | --- |
| Performance Solution/s applicable |  |
| Emergency lift/s provided (>25m) |  |
| Stretcher facility provided in lift (>12m) |  |
| Fire service controls provided to lifts (>12m) |  |
| Other relevant details: |  |

| **BCA E4.8 – Emergency Lighting and Exit Signage** | |
| --- | --- |
| Performance Solution/s applicable |  |
| Installed in accordance with AS 2293.1-2018 |  |
| Photoluminescent signage to BCA Spec. E4.8 |  |
| Photoluminescent wall/floor/stair markings: |  |
| Enhanced exit identification measures | Green & white chevron striping (‘DHUD’) |
| ‘Jumbo’ sized exit signs |
| Green high intensity visual alarm devices |
| Dynamic exit signs |
| Other relevant details: |  |

**Specific Operational Requirements**

Delete a table if it is not applicable to the project (e.g. there is no smoke hazard management system).

|  |  |  |  |
| --- | --- | --- | --- |
| **FIREFIGHTING WATER – SUMMARY TABLE** | | | |
| System type: | Choose an item. | | |
| Flow test received: | Choose an item. | | |
| **Performance – Maximum system demand** | | | |
|  | **Type** | **Flow rate** | **Pressure** |
| Fire hydrants | Choose an item. | L/s | kPa |
| Sprinklers | Choose an item. | L/s | kPa |
| Greatest system demand\* | Location: | L/s | kPa |
| Are street plugs used? | Choose an item. | Correct operation of all street plugs confirmed: | Choose an item. |
| No. street plugs required to flow 10 L/s: |  | No. street plugs required for coverage: |  |
| No. external hydrants required to flow 10 L/s: |  | No. internal hydrants required to flow 10 L/s: |  |
| **Booster & Supply Arrangements** | | | |
| Booster location(s) discussed and agreed with MFS BES? | Choose an item. | No. booster cabinets: |  |
| No. 65mm dia. booster hydrants: |  | No. 65mm dia. booster inlets: |  |
| Tanks used: | Choose an item. | No. 150mm dia. tank suction connections: |  |
| Effective tank capacity: | kL | Effective tank duration: | min |
| Pumps used: | Choose an item. | Pump arrangement: | Choose an item. |
| Duty pump type: | Choose an item. | Standby pump type: | Choose an item. |
| Booster relay pump/s: | Choose an item. | Booster relay pump duty point: | \_ L/s @ \_ kPa |

\* Please enter the greatest system design duty requirement for the building where the hydrants and sprinkler system are served by a combined or common water supply. This value may not be the combined total of the maximum design demand requirements for each of the hydrant and sprinkler system values as listed above this row. For example: wall-wetting sprinklers for exposure protection may have the greatest design demand for the sprinkler system, however the internal hydrant system would not typically be expected or required to flow simultaneously with the wall-wetting sprinklers. The greatest system demand would therefore be the simultaneous operation of the internal hydrant system and internal sprinkler system, serving the same respective area of the building.

|  |  |  |  |
| --- | --- | --- | --- |
| **ALARMS – SUMMARY TABLE** | | | |
| Fire system connected to MFS: | Choose an item. | FIP / bell / strobe location discussed and agreed with MFS BES?: | Choose an item. |
| Fire detection (AS 1670.1): | Choose an item. | Extended grid – common areas & paths of egress (AS 1668.1 / BCA): | Choose an item. |
| Fire alarms (AS 3786): | Choose an item. | EWIS (AS 1670.4) installed: | Choose an item. |
| 75 dB(A) achieved at bedhead: | Choose an item. | OWS (AS 1670.1 / BCA) installed? | Choose an item. |
| Building Fire Précis required: | Choose an item. | Hot smoke test required per Reg. 103: | Choose an item. |

Please include additional rows of data in the table below as appropriate.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SMOKE HAZARD MANAGEMENT - SUMMARY TABLE** | | | | |
| Smoke compartment: |  | Smoke spill fans: | (No. fans)\_ @ \_ m3/s | |
| Make up air via: |  | Total exhaust: | m3/s | |
| Smoke compartment: |  | Smoke spill fans: | \_ @ \_ m3/s | |
| Make up air via: |  | Total exhaust: | m3/s | |
| Smoke compartment: |  | Smoke spill fans: | \_ @ \_ m3/s | |
| Make up air via: |  | Total exhaust: | m3/s | |
| Smoke compartment: |  | Smoke spill fans: | \_ @ \_ m3/s | |
| Make up air via: |  | Total exhaust: | m3/s | |
| Additional comments re system controls: |  | | | |
| Smoke baffle information/locations: |  | | | |
| Fire Fan Control Panel at FIP: | Choose an item. | Hot smoke test required per Reg 103 | | Choose an item. |
| Tactical fire plan/block plan to include SSF locations | Choose an item. | Essential Power Provided (Generator)? | | Choose an item. |

**rEGULATION 103 TESTING Requirements**

The following tables have been developed to better capture the hydraulic testing requirements for the premises. Care must be taken to determine the correct testing regimes and duty points as this criteria will be adopted by MFS when undertaking Regulation 103 functionality testing.

Please include additional rows of data in the tables below as appropriate.

Delete tables that are not applicable to the project.

Refer Appendix B for a multi-classification building example.

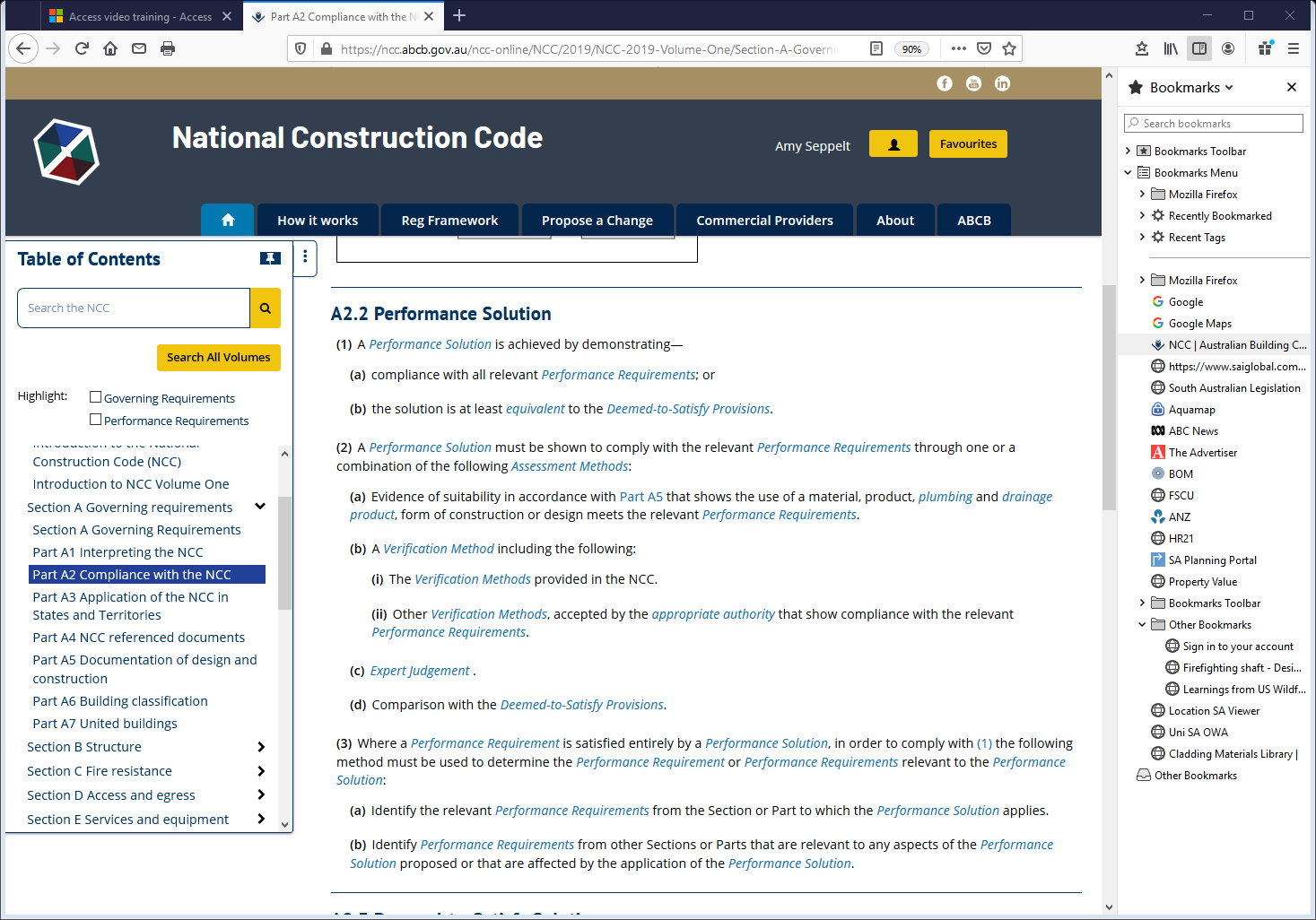
|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ADDITIONAL INFORMATION FOR REGULATION 103 WATER TESTING**  Independent Fire Hydrant System | | | | | | | |
| **Pumped:** | | Choose an item. | | | | | |
| **Primary supply:** | | Choose an item. | | | | | |
| **Secondary supply:** | | Choose an item. | | | | | |
| **Test** | **Purpose** | | **Location** | **Type** | **No. FH** | **Total flow** | **Pressure** |
| 1 | Choose an item. | |  | Choose an item. |  | L/s | kPa |
| 2 | Choose an item. | |  | Choose an item. |  | L/s | kPa |
| 3 | Choose an item. | |  | Choose an item. |  | L/s | kPa |
| 4 | Choose an item. | |  | Choose an item. |  | L/s | kPa |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ADDITIONAL INFORMATION FOR REGULATION 103 WATER TESTING**  Combined Hydrant & Sprinkler Systems | | | | | | | |
| **Pumped:** | | | Choose an item. | | | | |
| **Sprinkler annubar location:** | | |  | | | | |
| **Primary supply:** | | | Choose an item. | | | | |
| **Secondary supply:** | | | Choose an item. | | | | |
| **Test** | **Purpose** | **Location** | **Type** | **No. FH** | **System Component** | **Total flow** | **Pressure** |
| 1 | Choose an item. |  | Choose an item. |  | Hydrants | L/s | kPa |
| Choose an item. | L/s | kPa |
| 2 | Choose an item. |  | Choose an item. |  | Hydrants | L/s | kPa |
| Choose an item. | L/s | kPa |
| 3 | Choose an item. |  | Choose an item. |  | Hydrants | L/s | kPa |
| Choose an item. | L/s | kPa |
| 4 | Choose an item. |  | Choose an item. |  | Hydrants | L/s | kPa |
| Choose an item. | L/s | kPa |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **ADDITIONAL INFORMATION FOR REGULATION 103 WATER TESTING**  Independent Sprinkler Systems only | | | | | | | |
| **Pumped:** | | | Choose an item. | | | | |
| **Sprinkler annubar location:** | | |  | | | | |
| **Primary supply:** | | | Choose an item. | | | | |
| **Secondary supply:** | | | Choose an item. | | | | |
| **Test** | **Purpose** | **Location** | | **Type** | **System Component** | **Total flow** | **Pressure** |
| 1 | Choose an item. |  | | Boosted | Choose an item. | L/s | kPa |
| 2 | Choose an item. |  | | Boosted | Choose an item. | L/s | kPa |

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| The following Appendices are for information purposes only for completing this form and these pages should be removed when submitting this form to the MFS for a Regulation 45 Relevant Fire Authority Comment Report. |

**APPENDIX A – NCC 2019 Volume One, Section A – Governing Requirements**

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**APPENDIX B – Water Testing Table Example**

***Example 1:*** Building served by an onsite boosted hydrant system, external fire hydrants only. Required performance in accordance with AS 2419.1 is for two (2) hydrants operating simultaneously, all fire hydrants located as feed hydrants (within 20m of fire appliance hardstand).

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **ADDITIONAL INFORMATION FOR WATER TESTING**  Fire Hydrant System Only | | | | | | | |
| **Pumped:** | | No | | | | | |
| **Test** | **Purpose** | | **Location** | **Type** | **No. FH** | **Total flow** | **Pressure** |
| 1 | Most hydraulically disadvantaged | | Northern corner of main building | Unassisted | 2 | 20 L/s | 200 kPa |
| 2 | Most hydraulically disadvantaged | | Northern corner of main building | Boosted | 2 | 20 L/s | 700 kPa |

***Example 2:*** High rise building over 25m and less than 50m effective height comprising Basement car park, Ground floor retail, Levels 1 to 10 residential apartments. The combined hydrant and sprinkler system comprises a single pressure zone.

In accordance with AS 2419.1-2005, two (2) hydrants are required to flow simultaneously on the basement and ground levels, with only a single hydrant required to flow on the residential levels. In accordance with AS 2118.1-2017, the hazard classifications are Ordinary Hazard 2 to the basement car parking level, Ordinary Hazard 3 to the Ground floor retail, and Light Hazard to the residential areas. The area with the greatest sprinkler system demand is the basement car parking level.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ADDITIONAL INFORMATION FOR WATER TESTING**  Combined Hydrant & Sprinkler Systems | | | | | | | | | |
| **Pumped:** | | Yes (5L/s per hydrant) | | | **Sprinkler annubar location:** | | | Pump room | |
| **Test** | **Purpose** | | **Location** | **Type** | | **No. FH** | **System Component** | **Total flow** | **Pressure** |
| 1 | Most hydraulically disadvantaged | | Top (L10) | Pumped | | 1 | Hydrants | 5 L/s | 700 kPa |
| Sprinklers (LH) | 7.5 L/s | 671 kPa |
| 2 | Most hydraulically disadvantaged | | Top (L10) | Boosted | | 1 | Hydrants | 10 L/s | 700 kPa |
| Sprinklers (LH) | 7.5 L/s | 671 kPa |
| 3 | Highest system demand | | Basement car park | Pumped | | 2 | Hydrants | 10 L/s | 700 kPa |
| Sprinklers (OH2) | 18 L/s | 333 kPa |
| 4 | Highest system demand | | Basement car park | Boosted | | 2 | Hydrants | 20 L/s | 700 kPa |
| Sprinklers (OH2) | 18 L/s | 333 kPa |