1. Merits of resisting the Council order
2. Mitigating the situation worsening
3. Ensuring the support of the owners
4. Engagaging professional expertise
5. Next steps

1. Merits of resisting the Council Order

1. Is there a basis to invalidate **ALL** of the Council's Orders?
    A) In relation to the original referral made to Council by NSW Fire Services:
        i. Can it be shown that the Fire Service had no basis to refer the issue to Council?
        ii. Even if it can be shown that the Fire Service had no basis:
            a. will have the effect of invalidating the Council Order?
            b. Can this stop the Council taking Grant's opinion of non-compliance into account for the purposes of issuing the Order (for the requirements that do not rely of the effective height being over 25m)?
    B) In relation to the applicable standards to assess against:
        i. is it the Building Code that was in force in 1994 (when the building was completed) or is it the Building Code that is in force now (ie the 2019 NCC)?
        ii. If it is the latter Code, then what is the legal basis for applying this standard for the purposes of the Council's fire safety order?
2. Is there a basis to invalidate **PART** of the Council's Orders?
    A) For those 2019 NCC requirements relating to buildings with an effective height of more than 25m:
        i. is the "calculation in the rise of storeys" performed by measuring the difference between the highest applicable storey and the lowest applicable storey in our building:
            a. irrespective of whether those storeys are physically located above each other or not; or
            b. only if the at each part no matter where those storeys are located on the premises and (e.g. level 11 is situated ; or
        ii. for Is there a basis to show that our building

NCC 2019 Anlaysis:

Definition of ‘Building’

“building includes part of a building, and also includes any structure or part of a structure (including any temporary structure or part of a temporary structure), but does not include a manufactured home, moveable dwelling or associated structure within the meaning of the Local Government Act 1993.”: s1.4 Environment Planning and Developmnet Act 1979 (NSW)

Q - “ a fixed structure that is wholly or partly enclosed by walls or is roofed.”

Class 2 building: A6.2

Type A Construction: C1.1

Effective height

C.1.2 for the "calculation of rise in storeys" and the definition of "effective height" on p649

any storey that is below ground (or has a portion of <1m above ground) is excluded

Sprinklers

If effective <25m,

then it will reduce, albeit not eliminate, the cost of the sprinklers that will be needed implemented in order to comply with CP2 in the NCC - i.e:

We will need to have the building is protected throughout by a sprinkler system that:
1. complies with Spec E1.5, and

2. gives sprinkler protection to balconies, patios and terraces, and where overhead sprinkler coverage is not achieved alongside the external wall, has sidewall sprinkler heads that are provided at the external wall for the extent of thebalcony, patio or terrace where overhead sprinkler coverage is not achieved

If effective height >25m,

then will we need to have the following installed as well:

(A) monitored stop valves provided at each floor level arranged to allow the isolation of the floor level containing the stop valve while maintaining protection to the remainder of the building; and

(B)the sprinkler system being capable of providing sufficient flow to serve the design area required by AS2118.1 for the relevant hazard class on each floor level plus the design area required by AS 2118.1 for the floor level above, except where the former level is—

(aa)the floor level below the uppermost roof; or
(bb)any floor level that is wholly below ground.

Effective height

Our view of the application of "effective height"

What is the calculation method?

Clause C1.2 and the definition of "effective height" in Schedule 3 to the NCC (reproduced below), effective require us to:

1. Walk around "*the external walls of the building*";
2. Find that "*part of the building"* "*at the external walls*" of the building which has the "*greatest number of storeys*" between:
    a. the **lowest storey above the "finished ground"** (or if that part is on the boundary, the "natural ground level") (which includes any storey that has an average of more than 1 m above the "average finished level" of the ground at the external wall, or if the external wall is more than 12 m long, the average for the 12m part where the ground is lowest.), and
    b. the **topmost storey** (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units); and
3. Measure "the vertical distance" between:
    a. the floor of the lowest storey in 2.a. above, and
    b. the floor of the topmost storey in 2.b. above.

NCC 2019: Schedule 3 Definitions

https://ncc.abcb.gov.au/editions/2019-a1/ncc-2019-volume-one-amendment-1/schedule-3-definitions/schedule-3-definitions

Definitions

Note: States and Territories may vary or add to the definitions contained in Schedule 3 at the relevant State or Territory Appendix.

[NB: The NSW supplement for the NCC doe NOT contain any amendment to the "effective height" definition: https://ncc.abcb.gov.au/editions/2019-a1/ncc-2019-volume-one-amendment-1/new-south-wales/schedule-3-definitions

In the NCC unless the contrary intention appears—

… **Effective height** means the vertical distance between the floor of the lowest storey included in the calculation of rise in storeys and the floor of the topmost storey (excluding

the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units).

NCC 2019, standard C1.2: Calculation of rise in storeys

Guide

(a) The rise in storeys is the sum of the greatest number of storeys at any part of the external walls of the building and any storeys within the roof space—

(I) above the finished ground next to that part; or

(ii) if part of the external wall is on the boundary of the allotment, above the natural ground level at the relevant part of the boundary.

(b) A storey is not counted if—

(I) it is situated at the top of the building and contains only heating, ventilating or lift equipment, water tanks, or similar service units or equipment; or

(ii) it is situated partly below the finished ground and the underside of the ceiling is not more than 1 m above the average finished level of the ground at the external wall, or if the external wall is more than 12 m long, the average for the 12 m part where the ground is lowest.

(c) In a Class 7 or 8 building, a storey that has an average internal height of more than 6 m is counted as—

(I) one storey if it is the only storey above the ground; or

(ii) 2 storeys in any other case.

(d) For the purposes of calculating the rise in storeys of a building—

(I) a mezzanine is regarded as a storey in that part of the building in which it is situated if its floor area is more than 200 m2 or more than 1/3 of the floor area of the room, whichever is the lesser; and

(ii) two or more mezzanines are regarded as a storey in that part of the building in which they are situated if they are at or near the same level and have an aggregate floor area more than 200 m2 or more than 1/3 of the floor area of the room, whichever is the lesser.

Relevant NCC 2019 requirements that depend on whether a building has an effective height of 25m or not

Specification E1.5a Class 2 and 3 buildings not more than 25 m in effective height

https://ncc.abcb.gov.au/editions/2019-a1/ncc-2019-volume-one-amendment-1/section-e-services-and-equipment/specification-e1.5a

2. System requirements

Vic Spec E1.5a 2(a)

(a) A required automatic fire sprinkler system installed in a **Class 2 or 3 building with an effective height of not more than 25 m and a rise in storeys of 4 or more** must comply with—

(I) AS 2118.1; or

(ii) AS 2118.4, as applicable; or

(iii) FPAA101D, except for residential care buildings; or

(iv) FPAA101H, except for residential care buildings.

(b) A **Class 2 or 3 building not more than 25 m in effective height with a rise in storeys of 4 or more** provided with an automatic fire sprinkler system under Clause 2(a)(i) or 2(a)(ii) may be constructed in accordance with Clause 3(a), as applicable, provided—

(I) the automatic fire sprinkler system is permanently connected to a fire alarm monitoring system connected to a fire station or fire station dispatch centre in accordance with Specification E2.2d if—

(A) the system has more than 100 sprinkler heads; or

(B) [n/a - *Residnetial care buildings]* and

(ii) the automatic fire sprinkler system is fitted with sprinklers complying with clauses 4.4, 4.5 and 5.5.2 of AS 2118.4 in bedrooms; and

(iii) an automatic smoke detection and alarm system is installed in accordance with Specification E2.2a except that it need not be connected to a fire alarm monitoring system connected to a fire station or fire station dispatch centre, and [n/a - *residential care building*]

(iv) [n/a *Residential Care Building*]

(v) fire orders are provided in a Class 3 building in accordance with G4.9 as for a building in an alpine area.

3. Permitted concessions

(a) The following concessions are permitted for Class 2 and 3 buildings provided with a required automatic fire sprinkler system in accordance with Clause 2(a)(i) or 2(a)(ii):

(I) The FRL for self-closing fire doors, as required by C3.8 and C3.11, may be reduced to not less than -/30/30.

(ii) The FRL for—

(A) all non-loadbearing internal wallsand shafts constructed of fire-protected timber, as requiredby Specification C1.1 to have FRLs greater than -/60/60, may be reduced to -/60/60 and service penetrations through non-loadbearing internal walls and shafts constructed of fire-protected timber, as required by C3.15, may be reduced to not less than -/60/15; and

(B) all other non-loadbearing internal walls, as required by Specification C1.1, may be reduced to -/45/45 and the FRL for service penetrations through internal non-loadbearing walls and shafts, as required by C3.15, may be reduced to -/45/15.

(iii) The FRL for fire-isolated stairways enclosed with non-loadbearing construction, as required by D1.3, may be reduced to -/45/45.

(iv) Except in a residential care building, the maximum distance of travel, as required by D1.4(a)(i)(A), may be increased from 6 m to 12 m.

(v) The maximum distance of travel from a single exit serving the storey at the level of egress to a road or open space, as required by D1.4(a)(i)(B), may be increased from 20 m to 30 m.

(vi) The maximum distance between alternative exits, as required by D1.5(c)(i), may be increased from 45 m to 60 m.

(vii) Internal fire hydrants in accordance with E1.3 are not required where—

(A) the building is served by external fire hydrants that provide compliant coverage installed in accordance with E1.3, except that in a residential care building the nozzle at the end of the length of hose need only reach the entry door of any sole-occupancy unit to be considered as covering the area within the sole-occupancy unit; or

(B) a dry fire hydrant system that otherwise complies with AS 2419.1 is installed in the building and—

(aa) each fire hydrant head is located in accordance with E1.3 and fitted with a blank end cap or plug; and

(bb) the pipework is installed in accordance with E1.3 (as for a required fire main) except that it need not be connected to a water supply; and

(cc) a hydrant booster inlet connection is provided in accordance with E1.3; and

(dd) an external street or feed hydrant capable of providing the required system flow is located within 60 m of the hydrant booster connection.

(viii) An emergency warning and intercom system need not be provided in a residential care building in accordance with E4.9 if a warning system with an override public address facility is installed in accordance with Specification E2.2d.

(b) The following concessions are permitted for Class 2 and 3 buildings provided with a required automatic fire sprinkler system in accordance with Clause 2(a)(iii):

(I) Window openings need not be protected in accordance with C3.11(g) provided the room served by the window is sprinkler protected.

(ii) The FRL for—

(A) service penetrations through non-loadbearing internal walls and shafts, as required by C3.15, may be reduced to -/60/15; and

(B) non-loadbearing fire-resisting lift and stair shafts, as required by Specification C1.1, may be reduced to -/60/60.

(iii) The maximum distance of travel, as required by D1.4(a)(i)(A), may be increased from 6 m to 12 m.

(iv) The maximum distance of travel from a single exit serving the storey at the level of egress to a road or open space, as required by D1.4(a)(i)(B), may be increased from 20 m to 30 m.

(v) The maximum distance between alternative exits, as required by D1.5(c)(i), may be increased from 45 m to 60 m.

(vi) Internal fire hydrants in accordance with E1.3 are not required where—

(A) the building is served by external fire hydrants that provide compliant coverage installed in accordance with E1.3; or

(B) a dry fire hydrant system that otherwise complies with AS 2419.1 is installed in the building except—

(aa) the system pipework is not connected to the water supply; and

(bb) an on-site fire pumpset is not required; and

(cc) the minimum fire hydrant outlet flow of 6 L/s may be achieved when boosted by a fire brigade pumping appliance; and

(dd) the minimum pipe sizes specified in AS 2419.1 do not apply,

and—

(ee) each fire hydrant head is located in accordance with E1.3 and fitted with a blank end cap or plug; and

(ff) a hydrant booster inlet connection is provided in accordance with E1.3; and

(gg) an external street or feed hydrant capable of providing the required system flow is located within 60 m of the hydrant booster connection.

(c) The following concessions are permitted for Class 2 and 3 buildings provided with a required automatic fire sprinkler system in accordance with Clause 2(a)(iv):

(I) Window openings need not be protected in accordance with C3.11(g) provided the room served by the window is sprinkler protected.

(ii) The FRL for—

(A) service penetrations through non-loadbearing internal walls and shafts, as required by C3.15, may be reduced to -/60/15; and

(B) non-loadbearing fire-resisting lift and stair shafts, as required by Specification C1.1, may be reduced to -/60/60.

(iii) The maximum distance of travel, as required by D1.4(a)(i)(A), may be increased from 6 m to 12 m.

(iv) The maximum distance of travel from a single exit serving the storey at the level of egress to a road or open space, as required by D1.4(a)(i)(B), may be increased from 20 m to 30 m.

(v) The maximum distance between alternative exits, as required by D1.5(c)(i), may be increased from 45 m to 60 m.

Specification E1.5 Fire sprinkler systems

https://ncc.abcb.gov.au/editions/2019-a1/ncc-2019-volume-one-amendment-1/section-e-services-and-equipment/specification-e15

1. Scope

Guide

This Specification sets out requirements for the design and installation of fire sprinkler systems.

2. Application of automatic fire sprinkler standards

Guide

Vic Spec E1.5 2.

Subject to this Specification, an automatic fire sprinkler system must comply with—

(a) for all building classifications: AS 2118.1; or

(b) for a **Class 2 or 3 building with an effective height of not more than 25 m and a rise in storeys of 4 or more**: Specification E1.5a and the relevant provisions of this Specification as applicable; or

(c) for **Class 5, 6, 7, 8, 9a (other than a residential care building) or 9b parts of a building with an effective height not more than 25 m, which also contains Class 2 or 3 parts**: a sprinkler system in accordance with Specification E1.5a as for a Class 2 or 3 building and the relevant provisions of this Specification except—

(I) a FPAA101D sprinkler system cannot be used where the Class 5, 6, 7, 8, 9a (other than a residential care building) or 9b parts—

(A)

contain more than 2 storeys; or

(B)

are more than 25% of the total floor area of the building; or

(C)

are located above the fourth storey; and

(ii)

a FPAA101D or FPAA101H sprinkler system cannot be used where the Class 7a part (other than an open-deck carpark) accommodates more than 40 vehicles; or

(d)
for a combined sprinkler and fire hydrant system: AS 2118.6; or

(e)
for a Class 9a health-care building used as a residential care building: AS 2118.4 as applicable; or

(f)
for a Class 2, 3 or 9c building: AS 2118.4 as applicable.

3. Separation of sprinklered and non-sprinklered areas
Guide
Where a part of a building is not protected with sprinklers, the sprinklered and non-sprinklered parts must be fire-separated with a wall or floor which must—

(a)
comply with any specific requirement of the Deemed-to-Satisfy Provisions of the BCA; or

(b)
where there is no specific requirement, comply with the relevant part of AS 2118, FPAA101D or FPAA101H.

4. Protection of openings
Guide
Any openings, including those for service penetrations, in construction separating sprinklered and non-sprinklered parts of a building, including the construction separating the areas nominated for omitted protection in AS 2118.1, must be protected in accordance with the Deemed-to-Satisfy Provisions of Part C3.

5. Fast response sprinklers
Guide

Fast response sprinklers may be installed only if they are suitable for the type of application proposed and it is demonstrated that the sprinkler system is designed to accommodate their use.

6. Sprinkler valve enclosures

Guide

(a)

Sprinkler alarm valves must be located in a secure room or enclosure which has direct egress to a road or open space.

(b)

All sprinkler valve rooms and enclosures must be secured with a system suitable for use by the fire brigade.

7. Water supply

Guide

(a)

A required sprinkler system must be provided with at least one water supply.

(b)

A required sprinkler system in a building greater than 25 m in effective height must be provided with dual water supply except that a secondary water supply storage capacity of 25,000 litres may be used if—

(i)

the storage tank is located at the topmost storey of the building; and

(ii)

the building occupancy is classified as no more hazardous than Ordinary Hazard 2 (OH2) under AS 2118.1; and

(iii)

an operational fire brigade service is available to attend a building fire.

8. Building occupant warning system

Guide

A required sprinkler system, except a FPAA101D sprinkler system, must be connected to and activate a building occupant warning system complying with Clause 7 of Specification E2.2a.

9. Connection to other systems

Guide

Where a smoke hazard management system is installed and is actuated by smoke detectors, the sprinkler system must, wherever practicable, be arranged to also activate the smoke hazard management system.

10. Anti-tamper devices

Guide

(a)

Where a sprinkler system is installed—

(i)

over any stage area in a theatre, public hall or the like, visual and audible status indication of sprinkler valves must be provided at the location normally used by the stage manager; or

(ii)

in a space housing lift electrical and control equipment (including machine rooms, secondary floors and sheave rooms), any valves provided to control sprinklers in these spaces must be located adjacent to the space.

(b)

Any valves provided to control sprinklers required by (a) must be fitted with anti-tamper monitoring devices connected to a monitoring panel.

11. Sprinkler systems in carparks

Guide

A sprinkler system protecting a carpark complying with Table 3.9 of Specification C1.1 in a multi-classified building must—

(a)
be independent of the sprinkler system protecting any part of the building not used as a carpark; or

(b)
if forming part of a sprinkler system protecting a part of the building not used as a carpark, be designed such that the section protecting the non-carpark part can be isolated without interrupting the water supply or otherwise affecting the effective operation of the section protecting the carpark.

12. Residential care buildings
Guide
In addition to the provisions of AS 2118.4, a sprinkler system in—

(a)
a Class 3 building used as a residential care building; or

(b)
a Class 9a health-care building used as a residential care building; or

(c)
a Class 9c building, must—

(d)
be provided with a monitored main stop valve in accordance with AS 2118.1; and

(e)
be permanently connected with a direct data link or other approved monitoring system to a fire station or fire station dispatch centre.

13. Sprinkler systems in lift installations
(a)
Where sprinklers are installed in a space housing lift electrical and control equipment, including machine rooms, secondary floors and sheave rooms, sprinklers in these spaces must—

(i)
have heads protected from accidental damage by way of a guard that will not impair the performance of the head; and

(ii)
be capable of being isolated and drained, either separately or collectively, without isolating any other sprinklers within the building.

(b)
Valves provided to control sprinklers referred to in (a) must be installed in accordance with Clause 10(b).

C1.0 Deemed-to-Satisfy Provisions

Guide

(a)

Where a Deemed-to-Satisfy Solution is proposed, Performance RequirementsCP1 to CP9 are satisfied by complying with—

(i)

C1.1 to C1.14, C2.1 to C2.14 and C3.1 to C3.17; and

(ii)

in a building containing an atrium, Part G3; and

(iii)

for a building containing an occupiable outdoor area, Part G6; and

(iv)

for additional requirement for Class 9b buildings, Part H1; and

(v)

for farm sheds, Part H3.

(b)

Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2.2(3) and A2.4(3) as applicable.

C1.1 Type of construction required

Guide

(a)

The minimum Type of fire-resisting construction of a building must be determined in accordance with Table C1.1, except as allowed for—

(i)

certain Class 2, 3 or 9c buildings in C1.5; and

(ii)

a Class 4 part of a building located on the top storey in C1.3(b); and

(iii)
open spectator stands and indoor sports stadiums in C1.7.

SA C1.1(a)(iv) and (v)

(b)
Each building element must comply with Specification C1.1 as applicable.

SA C1.1(c) and (d)

C1.2 Calculation of rise in storeys
Guide
(a)
The rise in storeys is the sum of the greatest number of storeys at any part of the external walls of the building and any storeys within the roof space—

(i)
above the finished ground next to that part; or

(ii)
if part of the external wall is on the boundary of the allotment, above the natural ground level at the relevant part of the boundary.

(b)
A storey is not counted if—

(i)
it is situated at the top of the building and contains only heating, ventilating or lift equipment, water tanks, or similar service units or equipment; or

(ii)
it is situated partly below the finished ground and the underside of the ceiling is not more than 1 m above the average finished level of the ground at the external wall, or if the

external wall is more than 12 m long, the average for the 12 m part where the ground is lowest.

(c)
In a Class 7 or 8 building, a storey that has an average internal height of more than 6 m is counted as—

(i)
one storey if it is the only storey above the ground; or

(ii)
2 storeys in any other case.

(d)
For the purposes of calculating the rise in storeys of a building—

(i)
a mezzanine is regarded as a storey in that part of the building in which it is situated if its floor area is more than 200 m2 or more than 1/3 of the floor area of the room, whichever is the lesser; and

(ii)
two or more mezzanines are regarded as a storey in that part of the building in which they are situated if they are at or near the same level and have an aggregate floor area more than 200 m2 or more than 1/3 of the floor area of the room, whichever is the lesser.

C1.3 Buildings of multiple classification
Guide
(a)
In a building of multiple classifications, the Type of construction required for the building is the most fire-resisting Type resulting from the application of Table C1.1 on the basis that the classification applying to the top storey applies to all storeys.

(b)

In a building containing a Class 4 part on the top storey, for the purpose of (a), the classification applying to the top storey must be—

(i)
when the Class 4 part occupies the whole of the top storey, the classification applicable to the next highest storey; or

(ii)
when the Class 4 part occupies part of the top storey, the classification applicable to the adjacent part.

C1.4 Mixed types of construction
Guide
A building may be of mixed Types of construction where it is separated in accordance with C2.7 and the Type of construction is determined in accordance with C1.1 or C1.3.

C1.5 Two storey Class 2, 3 or 9c buildings
Guide
A building having a rise in storeys of 2 may be of Type C construction if—

(a)
it is a Class 2 or 3 building or a mixture of these classes and each sole-occupancy unit has—

(i)
access to at least 2 exits; or

(ii)
its own direct access to a road or open space; or

(b)
it is a Class 9c building protected throughout with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification E1.5 and complies with the maximum compartment size specified in Table C2.2 for Type C construction.

C1.6 Class 4 parts of buildings

Guide

For the Type of construction required by C1.3, a Class 4 part of a building requires the same FRL for building elements and the same construction separating the Class 4 part from the remainder of the building as a Class 2 part in the same Type of construction.

C1.7 Open spectator stands and indoor sports stadiums

Guide

(a)

An open spectator stand or indoor sports stadium may be of Type C construction and need not comply with the other provisions of this Part if it contains not more than 1 tier of seating, is of non-combustible construction, and has only changing rooms, sanitary facilities or the like below the tiered seating.

(b)

In (a), one tier of seating means numerous rows of tiered seating incorporating cross-overs but within one viewing level.

C1.8 Lightweight construction

Guide

(a)

Lightweight construction must comply with Specification C1.8 if it is used in a wall system—

(i)

that is required to have an FRL; or

(ii)

for a lift shaft, stair shaft or service shaft or an external wall bounding a public corridor including a non fire-isolated passageway or non fire-isolated ramp, in a spectator stand, sports stadium, cinema or theatre, railway station, bus station or airport terminal.

(b)

If lightweight construction is used for the fire-resisting covering of a steel column or the like, and if—

(i)
the covering is not in continuous contact with the column, then the void must be filled solid, to a height of not less than 1.2 m above the floor to prevent indenting; and

(ii)
the column is liable to be damaged from the movement of vehicles, materials or equipment, then the covering must be protected by steel or other suitable material.

C1.9 Non-combustible building elements
Guide
(a)
In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible:

(i)
External walls and common walls, including all components incorporated in them including the facade covering, framing and insulation.

(ii)
The flooring and floor framing of lift pits.

(iii)
Non-loadbearing internal walls where they are required to be fire-resisting.

(b)
A shaft, being a lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of combustion, that is non-loadbearing, must be of non-combustible construction in—

(i)
a building required to be of Type A construction; and

(ii)
a building required to be of Type B construction, subject to C2.10, in—

(A)
a Class 2, 3 or 9 building; and

(B)
a Class 5, 6, 7 or 8 building if the shaft connects more than 2 storeys.

(c)
A loadbearing internal wall and a loadbearing fire wall, including those that are part of a loadbearing shaft, must comply with Specification C1.1.

(d)
The requirements of (a) and (b) do not apply to the following:

(i)
Gaskets.

(ii)
Caulking.

(iii)
Sealants.

(iv)
Termite management systems.

(v)
Glass, including laminated glass.

(vi)
Thermal breaks associated with glazing systems.

(vii)
Damp-proof courses.

(e)

The following materials may be used wherever a non-combustiblematerial is required:

(i)

Plasterboard.

(ii)

Perforated gypsum lath with a normal paper finish.

(iii)

Fibrous-plaster sheet.

(iv)

Fibre-reinforced cement sheeting.

(v)

Pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm thickness and where the Spread-of-Flame Index of the product is not greater than 0.

(vi)

Sarking-type materials that do not exceed 1 mm in thickness and have a Flammability Index not greater than 5.

(vii)

Bonded laminated materials where—

(A)

each lamina, including any core, is non-combustible; and

(B)

each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and

(C)

the Spread-of-Flame Index and the Smoke-Developed Index of the bonded laminated material as a whole do not exceed 0 and 3 respectively.

C1.10 Fire hazard properties

Guide

(a)

The fire hazard properties of the following internal linings, materials and assemblies within a Class 2 to 9 building must comply with Specification C1.10:

(i)

Floor linings and floor coverings.

(ii)

Wall linings and ceiling linings.

(iii)

Air-handling ductwork.

(iv)

Lift cars.

NSW C1.10(a)(v)

(v)

In Class 9b buildings used as a theatre, public hall or the like—

(A)

fixed seating in the audience area or auditorium; and

(B)

a proscenium curtain required by Specification H1.3.

(vi)

Escalators, moving walkways and non-required non fire-isolated stairways or pedestrian ramps subject to Specification D1.12.

(vii)
Sarking-type materials.

(viii)
Attachments to floors, ceilings, internal walls, common walls, fire walls and to internal linings of external walls.

(ix)
Other materials including insulation materials other than sarking-type materials.

NSW C1.10(b)

(b)
Paint or fire-retardant coatings must not be used to achieve compliance with the required fire hazard properties.

(c)
The requirements of (a) do not apply to a material or assembly if it is—

(i)
plaster, cement render, concrete, terrazzo, ceramic tile or the like; or

(ii)
a fire-protective covering; or

(iii)
a timber-framed window; or

(iv)
a solid timber handrail or skirting; or

(v)
a timber-faced door; or

(vi)
an electrical switch, socket-outlet, cover plate or the like; or

(vii)
a material used for—

(A)
a roof insulating material applied in continuous contact with a substrate; or

(B)
an adhesive; or

(C)
a damp-proof course, flashing, caulking, sealing, ground moisture barrier, or the like; or

(viii)
a paint, varnish, lacquer or similar finish, other than nitro-cellulose lacquer; or

(ix)
a clear or translucent roof light of glass fibre-reinforced polyester if—

(A)
the roof in which it is installed forms part of a single storey building required to be Type C construction; and

(B)
the material is used as part of the roof covering; and

(C)
it is not closer than 1.5 m from another roof light of the same type; and

(D)
each roof light is not more than 14 m2 in area; and

(E)

the area of the roof lights per 70 m2 of roof surface is not more than 14 m2; or

(x)
a face plate or neck adaptor of supply and return air outlets of an air handling system; or

(xi)
a face plate or diffuser plate of light fitting and emergency exit signs and associated electrical wiring and electrical components; or

(xii)
a joinery unit, cupboard, shelving, or the like; or

NSW C1.10(c)(xiii)

(xiii)
an attached non-building fixture and fitting such as—

(A)
a curtain, blind, or similar decor, other than a proscenium curtain required by Specification H1.3; and

(B)
a whiteboard, window treatment or the like; or

(xiv)
timber treads, risers, landings and associated supporting framework installed in accordance with D2.25 where the Spread-of-Flame Index and the Smoke-Developed Index of the timber does not exceed 9 and 8 respectively; or

Vic C1.10(c)(xv)

(xv)
any other material that does not significantly increase the hazards of fire.

C1.11 Performance of external walls in fire

Guide

Concrete external walls that could collapse as complete panels (e.g. tilt-up and pre-cast concrete), in a building having a rise in storeys of not more than 2, must comply with Specification C1.11.

C1.12 * * * * *

Guide

Blank clause

This clause has deliberately been left blank.

C1.13 Fire-protected timber: Concession

Guide

Fire-protected timber may be used wherever an element is required to be non-combustible, provided—

(a)

the building is—

(i)

a separate building; or

(ii)

a part of a building—

(A)

which only occupies part of a storey, and is separated from the remaining part by a fire wall; or

(B)

which is located above or below a part not containing fire-protected timber and the floor between the adjoining parts is provided with an FRL not less than that prescribed for a fire wall for the lower storey; and

(b)

the building has an effective height of not more than 25 m; and

(c)
the building has a sprinkler system (other than a FPAA101D or FPAA101H system) throughout complying with Specification E1.5; and

(d)
any insulation installed in the cavity of the timber building element required to have an FRL is non-combustible; and

(e)
cavity barriers are provided in accordance with Specification C1.13.

C1.14 Ancillary elements
Guide
An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible unless it is one of the following:

(a)
An ancillary element that is non-combustible.

(b)
A gutter, downpipe or other plumbing fixture or fitting.

(c)
A flashing.

(d)
A grate or grille not more than 2 m2 in area associated with a building service.

(e)
An electrical switch, socket-outlet, cover plate or the like.

(f)
A light fitting.

(g)
A required sign.

(h)
A sign other than one provided under (a) or (g) that—

(i)
achieves a group number of 1 or 2; and

(ii)
does not extend beyond one storey; and

(iii)
does not extend beyond one fire compartment; and

(iv)
is separated vertically from other signs permitted under (h) by at least 2 storeys.

(i)
An awning, sunshade, canopy, blind or shading hood other than one provided under (a) that—

(i)
meets the relevant requirements of Table 4 of Specification C1.10 as for an internal element; and

(ii)
serves a storey—

(A)
at ground level; or

(B)
immediately above a storey at ground level; and

(iii)

does not serve an exit, where it would render the exits unusable in a fire.

(j)

A part of a security, intercom or announcement system.

(k)

Wiring.

(l)

A paint, lacquer or a similar finish.

(m)

A gasket, caulking, sealant or adhesive directly associated with (a) to (k).

SA C1.15