

What the 2023 Fire Code Means for Building Facade Inspections

Fire code 2023 singapore — practical guidance for building owners and managers

Facade Inspection Singapore — BCA-Approved Competent Person

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What the SCDF Fire Code 2023 means for facade inspections in Singapore — non-load-bearing external walls, residential floor separation, PV installations, and fire-stopping.

Fire safety used to be a problem primarily on the inside of a building — sprinklers, exit staircases, smoke control. Then post-Grenfell scrutiny moved the conversation outdoors, and the Fire Code 2023 Singapore edition tightened a series of facade-relevant clauses that now shape what a periodic facade inspection has to look at. SCDF released the 2023 edition on 25 August 2023, with implementation effective 1 March 2024. For building owners, that effective date means any new fire-safety works submitted to SCDF on or after 1 March 2024 are subjected to the new Code.

This post walks through what changed in the 2023 Code that matters for the facade, what stays the same in the periodic facade inspection regime, and where the Code interacts with curtain walls, cladding and wall-integrated PV.

The 2023 Fire Code in context

The Code of Practice for Fire Precautions in Buildings — commonly the "Fire Code" — is the authoritative source of fire-safety standards for local buildings. It is reviewed periodically by the Fire Code Review Committee (chaired by SCDF, with members from industry, government agencies and academic institutions). The 2023 edition consolidates amendments across five annexes (A through E). Amendments range from clarifications effective immediately on publication to substantive new requirements effective 1 March 2024 — most notably new rules for photovoltaic (PV) installations and digital lock provisions.

For the facade inspector, the Code is the second of three regulatory perimeters that govern an inspection: the BCA periodic facade inspection regime (Building Control Act) sets the duty to inspect; the SCDF Fire Code sets the standard a building's facade must meet; and the WSHA

governs how the inspection itself is carried out safely.

Facade-relevant clauses to know

Several 2023 clauses directly affect facade-related findings.

Non-load-bearing external walls — Clause 3.3.3

The Code reaffirms that the fire-resistance requirement in Clause 3.3.2 does not apply to certain non-load-bearing external walls subject to specified exemptions. The 2023 amendment is largely a clarification that does not relax the underlying requirement. For a facade inspector encountering an unrated panel in a location where rating was originally required, the implication is the same as before: flag the discrepancy and request the original SCDF-approved fire-safety drawings.

Separation of residential floor facade — Clause 3.5.9 / 9.2.1b.(3)

The 2023 edition relocates the residential floor facade separation requirement to Clause 9.2.1b.(3), with PG II residential floor facades to be separated in accordance with that clause. Inspectors looking at residential towers should pay particular attention to spandrel-zone construction, slab-edge fire stopping and any vertical fire spread paths created by horizontal projections, balconies or recessed bay windows.

Wall-integrated PV — Clause 10.2.3 (effective 1 March 2024)

The 2023 Code introduces a new clause on wall-integrated PV installations — PV integrated into the building such as windows or curtain walls. This is the headline facade-relevant change. The clause requires:

- Spaces abutting or facing PV installations to be fully protected by an automatic sprinkler system (or automatic fire extinguishing system), with limited exceptions for buildings not exceeding 12 m habitable height, protected by an automatic fire alarm system compliant with SS 645, and not containing healthcare (inpatient) occupancy.
- PV installations adjacent to exit staircases to comply with Clause 2.3.3a.(3) or 2.3.3b.(2)(b).
- All cables and related components to be housed in a non-combustible conduit, with positive and negative DC cables in separate containments.
- Critically — and this is the clause facade inspectors will most often touch — the opening at the junction between the edge of a structural floor and the wall-integrated PV must be sealed to prevent the spread of smoke and flame from the lower floor to the upper floor via the opening, with fire-stopping materials of the same fire resistance rating as the elements of structure.

For inspectors, this means BIPV facades now have a verifiable fire-stopping interface that must be inspectable from inside the building at the slab edge.

Fire-rated doors and protected openings — Clause 11.8.2

The 2023 Code clarifies fire-rated door requirements, particularly around uninsulated fire-rated glass doors and the fire test scheme that applies. While these clauses focus on internal protection, they touch the facade where fire-rated openings interface with the external skin (smoke-free approach corridors, refuge floors, fire lift lobbies on external walls).

Fire shutters as separating wall — Clause 3.7.7d

Refined to align activation modes with Clause 3.6.2 — relevant where fire shutters function as separating walls between two buildings sharing a facade interface or linkway.

Cladding and the Code — what hasn't changed

The fire-performance basics for cladding remain the practical reference point for inspectors. External cladding must meet Class 1 or 2 fire rating, with flame spread tested per BS 476 (Pt 7) and fire propagation per BS 476 (Pt 6) measuring heat released. ACP with a 100% polyethylene core does not meet SCDF's fire rating requirements; fire-retardant ACP using a mineral core (predominantly magnesium oxide and aluminium hydroxide) achieving Class A2 to EN 13501 is the replacement-grade specification for new and refurbishment work.

For an inspector, a 2023-era inspection involves verifying the panel actually installed (sometimes via small-sample fire testing where documentation is missing), checking the SCDF-approved fire-safety drawings on file with the building, and recording any deviation as a Code-compliance finding rather than a periodic-inspection defect.

Common red flags during a fire-code-aware facade inspection

- ACP panels with no documented fire performance and no available SCDF approval drawings
- BIPV or wall-integrated PV installations without visible fire-stopping at slab edges
- Floor-to-floor smoke paths behind spandrel panels or open-joint cladding without backing
- Penetrations through external walls (services, AC piping, exhaust) not fire-stopped to the same FRR as the surrounding element
- Linkway roofs of combustible material connecting buildings
- Fire-shutter facade interfaces with damaged or non-functional activation
- Refuge floor facade openings with cracked or non-functioning fire-rated glazing
- Compartmentation lines breached by post-handover renovation works penetrating the facade

Singapore regulatory context

The legal frame is the Fire Safety Act 1993 (Cap. 109A), under which the Code of Practice for Fire Precautions in Buildings is issued by SCDF. The 2023 edition takes effect from 1 March 2024 for new submissions. Maintenance of fire protection systems is required under Clause 1.2.3, with the QP documenting maintenance details in the Fire Safety Instruction Manual handed over to the building owner. Periodic facade inspection under the BCA Building Control Act runs in parallel — a facade can be defective under PFI even when fire-code compliant, and vice versa. The two regimes complement rather than substitute for each other. Where facade inspection is being carried out, the Workplace Safety and Health Act applies to the inspection works themselves.

What to do next

If your building was designed pre-2024 and you are about to undertake a facade alteration, a recladding, or a BIPV retrofit, the post-1 March 2024 submission rule means the new Fire Code requirements apply to that work even if the rest of the building remains unchanged. The single most useful preparatory step is to compile your existing SCDF approval documents and the Fire

Safety Instruction Manual before a Competent Person mobilises — it determines what your inspector can verify and what they will need to flag for re-submission.

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Sources & references

- Source training material: SCDF Circular CD/04/05/01/01 — Publication of the Code of Practice for Fire Precautions in Buildings 2023 Edition (25 Aug 2023).
- Building and Construction Authority (BCA) — Periodic Facade Inspection (PFI), Building Control Act and Building Control (Periodic Inspection of Buildings and Building Facades) Regulations 2021. www1.bca.gov.sg
- Ministry of Manpower (MOM) — Workplace Safety and Health Act 2006 and subsidiary regulations including WSH (Risk Management), WSH (Work at Heights), and WSH (Scaffolds) Regulations. www.mom.gov.sg
- Singapore Civil Defence Force (SCDF) — Code of Practice for Fire Precautions in Buildings 2023 Edition (effective 1 March 2024). www.scdf.gov.sg