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For enquiries, please contact:
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or use our Online Feedback Form at:
<https://www.bca.gov.sg/feedbackform/>

To: Building Owners

ADVISORY ON REGULAR INSPECTION AND MAINTENANCE OF ESCALATOR CLADDING PANELS

This Advisory serves to remind building owners to carry out regular inspections and maintenance on the cladding panels affixed to escalators, especially those which have been installed by adhesive methods which could be prone to sudden delamination and dislodgment.

2 Recent incidents in which cladding panels affixed to escalators had dislodged and posed risks to public safety, highlight the importance of regular inspection and proper maintenance. We would like to remind building owners of their responsibility in ensuring their buildings, including the building fixtures such as escalator cladding panels are regularly inspected and maintained for the safety of the occupants and public. You may refer to our earlier circular dated 27 Dec 2018 for more information on the maintenance of escalators.

Potential causes of dislodgment of escalator cladding panels

3 Dislodged escalator cladding panels could be caused by the following:

- a) Inadequate regular inspections and ineffective maintenance regimes. These could lead to undetected or unaddressed defects and issues in the cladding panels, such as prolonged sagging, corrosion, deterioration of the fixing components, delamination of the adhesive agents and other forms of wear and tear;
- b) Inappropriate alteration and/or removal of the fixing components, such as the fasteners, brackets and cladding panels such as calcium silicate or medium density fibreboards; and
- c) Poor workmanship and unsupervised installation of escalator cladding panels.

Signs of damage or deterioration of escalator cladding panels

4 Building owners should be vigilant and look out for any of the following warning signs that may indicate defects in escalator cladding panels:

- a) Sagging/ deformed escalator cladding panels, gaps between the escalator cladding panels or dislodgement of any of the cladding panels or fixing components;
- b) Missing or damaged fixings of the cladding panels such as fastening screws, rivets or bolts; and
- c) Presence of water/ oil stains or signs of corrosion/ rust on the cladding panels and supporting structures to which the panels are affixed to.

Regular maintenance and retrofitting of escalator cladding panels

5 Building owners should carry out regular inspections and maintenance of escalator cladding panels. They should ensure prompt rectification works are carried out to arrest potential damage or deterioration to these panels, including adopting these practices:

- a) Schedule and keep record of periodic inspections and other steps taken for maintenance of the escalator cladding panels in the building:
 - i) Identify early any defects that require attention and to conduct a detailed investigation to ascertain the root causes of such defects and repair the defects promptly;
 - ii) Identify and rectify any inappropriate alteration or removal of fixing components; and
 - iii) Avoid any inappropriate imposition of additional load on the escalator panels¹ and their supporting structures.
- b) Do not alter the escalator cladding panels and their components without consulting the escalator contractor/ manufacturer; and

¹ SS626 Code of Practice for design, installation and maintenance of escalators and moving walks requires that the fastening method must be able to support a minimum of twice the dead weight of the panels. Additionally, the escalator panels must be sufficiently strong enough to withstand a force of 250N over an area of 25 cm² without breakage or deflection resulting in any gap.

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- c) Engage a Professional Engineer or suitably qualified person to assess the fixing method of the cladding panels and propose any rectifications and strengthening works such as the use of mechanical fastenings as may be necessary to ensure the continued securement of the escalator cladding panels.

5 The dislodgement of escalator cladding panels could pose serious harm to occupants of the buildings and the public. Building owners are strongly urged to retrofit the cladding panels with mechanical fasteners, instead of using the adhesive method. This is to help minimise long-term maintenance concerns with deterioration/delamination of the adhesive used to affix the cladding panels.

6 If you need any clarification, please contact us through BCA's Online Feedback Form at <https://www.bca.gov.sg/feedbackform/> or call 1800 342 5222.

Yours faithfully,



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BUILDING AND CONSTRUCTION AUTHORITY
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