BUILDING AND CONSTRUCTION AUTHORITY (BCA) ANNUAL LIFT AND ESCALATOR SAFETY SEMINAR 2025

14 January 2025

S/N	Questions	Responses
New Building Control (Fixed Installations) Regulations – Overview *BCA presented on the key changes relating to the Building Control (Fixed Installations) Regulations (henceforth referred to as "FI Regs"), Building Control (Reportable Matters) Regulations (henceforth referred to as "RM Regs"), Building Control (Exempt Fixed Installation Works) Order which will be implemented from **1 July 2025**, as well as key duties of stakeholders for the Design, Installation, Operations and Maintenance of Fixed Installations (i.e. lifts, escalators, stairlifts, vertical platform lifts (VPLs) and mechanised car parking systems (MCPS)).*		
1.	Who can be appointed as the plan submission QP (also referred to as QP(Plan)) and the Supervisor QP (also referred to as QP(Sup))? Can the same person be appointed as QP(Plan) and QP(Sup)?	In the FI Regs, the QP refers to a Specialised Professional Engineer in the branch of Lift and Escalator Engineering. i.e. SPE(L&E). The role of the QP(Plan) is to certify that the Fixed Installation (FI) works are designed in accordance with the Regulations and to submit the relevant FI plans for approval on behalf of the developer. The role of the QP(Sup) is to certify that the FI works are carried out in accordance with the approved plans before applying for the Permit-to-Operate (PTO) for the FI. The Developer for the FI works may appoint the same SPE(L&E) to be both the QP(Plan) and QP(Sup), subject to the other requirements in the Building Control Act (henceforth referred to as "BC Act") and the FI Regs.
2.	Must the QP(Sup) be physically present to supervise the carried out of the FI works, the installer's examining, inspecting, testing or commissioning (EITC) of the FI, after the installation works and after the major alteration or replacement (A/R) works?	There is no need for the QP(Sup) to be on-site full-time during the carrying out of the FI works. However, the QP(Sup) must be physically present to supervise examining, inspecting, testing or commissioning (EITC) of the FI, after the completion of the installation and major alterations or replacements (A/R) works.

3.	If a Lift & Escalator Inspector is conducting the examination, inspection and testing (EIT), must the SPE be present?	If one or more Fixed Installation Inspectors (or referred to as FII) are appointed to supervise the conduct of the annual EIT, the SPE(L&E) need not be present. However, the SPE(L&E) must ensure that he/she diligently reviews the results of the EIT which was carried out under the supervision of the FII. Note: Lift and Escalator Inspector (LEI) is being referred to as a Fixed Installation Inspector (FII) as defined in the FI Regs.
New Building Control (Fixed Installations) Regulations – FI Plans Submission and PTO Application *BCA presented on the regulatory requirements relating to FI Plans submission, major alteration and replacement works (henceforth referred to as "major A/R works") and processes for PTO application.*		
1.	If there's a project currently ongoing with the building plan submitted before 1st July 2025 but FI works starts after 1st July 2025, does the QP needs to submit FI Plans?	FI Plans submission will be applicable to FI works that are: i) carried out on or after 1 July 2025; and ii) not part of the building works for which an application to the CBC for approval of plans of the building works was submitted before 1 July 2025.
2.	At which stage of the project should the FI Plans be submitted? After Building Plan (BP) / Structural Plan (ST) or before BP/ST?	FI plans should be submitted after the BP approval is obtained. In addition, FI plans approval has to be obtained before the commencement of FI works.
3.	How long does it take for FI plan to get approved upon submission?	The typical response time will be within 7 working days. However, please note that more time may be needed for additional correspondence if the submission is not in order.
4.	On replacing safety components, what is the definition of "same model" as certificates will expire and models will be replaced with a newer version of the same model, though with a new name?	If the replacement of the safety component constitutes a change in design or specification, it would be considered as a major A/R works.

<table>
<tr><td>5.</td><td>What are the type test certificates required under the new FI Regs?</td><td rowspan="4">Under the new FI Regs, type-test certificates for the following safety components and the lift model are required to be submitted as part of the for FI plans for approval. The certificates submitted at this point must be valid and within the expiry date (if any). There will be no need to re-submit the type-test certificates during the application for the first PTO if there is no change in the components.

<u>List of safety components</u>
(a) Lift System Model
(b) Landing door locking device
(c) Car door locking device
(d) Safety Gear
(e) Overspeed Governor
(f) Buffer
(g) Safety circuits containing electronic components/ Safety circuit containing programmable electronic systems in safety related applications for lifts (PESSRAL)
(h) Ascending car overspeed protection means (ACOP) detection subsystem
(i) Ascending car overspeed protection means (ACOP) stopping subsystem
(j) Unintended car movement protection means (UCMP) detection/control subsystem
(k) Unintended car movement protection means (UCMP) stopping subsystem
(l) Self-monitoring of brakes/hydraulic valves (if brakes or hydraulic valves are used as stopping subsystem for ACOP and/or UCMP)
(m) Rupture valve/one-way restrictor (for hydraulic lifts only)

The safety components must be tested and certified to EN81-50. The lift model is required to be tested and certified to EN81-20 or SS550:2020. This is similar to Module B in EU’s type-certification framework.

For safety components, except for PESSRAL, type-test certificates from any of the following certification bodies are acceptable:

<u>Certification Bodies for Lift Safety Components in Europe</u>
Link: (https://ec.europa.eu/growth/tools-databases/nando/index.cfm?fuseaction=directive.notifiedbody&dir_id=153562)</td></tr>
<tr><td>6.</td><td>Type-test certificates submitted at the Design stage may have expired by the time the lift is manufactured and installed. Will these certificates still be valid, or certificates with valid expiry dates are required to be resubmitted at PTO stage?</td></tr>
<tr><td>7.</td><td>What are the testing criteria and who are the BCA approved certified bodies?</td></tr>
<tr><td>8.</td><td>What is the acceptable lift system certificate requirement or if it comply to EN81-20/50 regardless any EU directive module?</td></tr>
</table>

		<u>Certification Bodies for Lift Safety Components in China</u> • Shenzhen Institute of Quality and Safety Inspection and research, SIQS (previously known as Shenzhen Institute of Special Equipment, SISE) • National Elevator Inspection and Testing Centre, NETEC • Shanghai Jiaotong University Elevator Testing Centre, SJUETC • Guangdong Institute of Special Equipment Inspection and Research/National Elevator Quality Supervision and Inspection Centre (Guang Dong) • Zhejiang Institute of Special Equipment Inspection and Research/National Elevator Quality Supervision and Inspection Centre (Zhe Jiang) • Chongqing Institute of Special Equipment Inspection and Research/National Elevator Quality Supervision and Inspection Centre (Chong Qing) • China Special Equipment Inspection and Research Institute For the most updated list of accredited Chinese Certification Bodies, please refer to the website link below: Link: (https://www.samr.gov.cn/tzsbj/xxgs/syjg/) ***<u>Certification Bodies for PESSRAL and Lift Model</u>*** • Liftinstituut B.V. • TUV SUD Industrie Service GmbH • Shenzhen Institute of Quality and Safety Inspection and research, SIQS (previously known as Shenzhen Institute of Special Equipment, SISE) • National Elevator Inspection and Testing Centre, NETEC • Shanghai Jiaotong University Elevator Test Centre, SJUETC • Guangdong Institute of Special Equipment Inspection and Research/National Elevator Quality Supervision and Inspection Centre (Guang Dong The list of Certification Bodies will be updated on BCA website as and when there is a change to the list.
9.	What is “proof test certificate for escalator” and any certified body required?	These are part of the documentation for an escalator that are required to be held by the manufacturer, in accordance with SS626:2017, Clause 6.2.

10.	How do we report unsafe conditions of lifts and escalators? Are the particulars of the reporter kept confidential?	The channels (phone numbers and forms) for reporting of reportable matters will be available on BCA website at a later date. The particulars of reporters will be kept confidential.
10.	For major A/R works in a building more than 5000sqm with no BP submission, is Building Information Modelling (BIM) still required?	For construction projects involving gross floor area (GFA) larger than 5,000m^2, BIM models of the projects would have to be submitted in BIM to BCA. For more information on BIM submissions relating to Fixed Installations (Lifts & Escalators), please refer to: https://www1.bca.gov.sg/regulatory-info/lifts-escalators/building-information-modelling-for-fixed-installation-design-plans-submission The generic component models in the default library were developed to make BIM modelling easier for the industry to adopt and use these library models directly. This saves effort on their part to develop their own models. If the manufacturer already has its own library of models, such models may also be used.
11.	For major A/R works for escalators retaining truss, is there a requirement to submit layout plan drawings? There is no change to the existing dimensions.	For major A/R works on escalators or lifts which do not involve any submission of BP and ST plan, site plans and floor plans are not required to be submitted. On the scope of major A/R works that require an FI plan submission, please refer to the First Schedule of the BC(FI)Regs on the list of major A/R works that require FI plans submission.
12.	Do we need plan submission for A/R work for lift and what is the difference between current and new process?	Currently, prior to the commencement of any major A/R works, the owner must notify the Commissioner of Buildings (COB) by suspending the relevant PTO in the Lift and Escalator Application Portal (also refer to as LEAP) and engage a SPE to supervise the EITC upon completion of the major A/R works before the application for a new PTO. Going forward, for works subjecting to the FI Regs, if the works fall within the list in the second column of the First Schedule of the FI Regs, an FI plan submission for the works would need to be submitted for the approval of the Commissioner of Building Control (CBC) prior to the commencement of works on-site.

		Before the commencement of the major A/R works (regardless if FI plan submission is required), similar to current process, the owner would need to notify the CBC by updating the proposed works and suspend the relevant PTO in LEAP. He must also engage a QP(Sup) to supervise the EITC upon completion of the FI works before the application for a new PTO.
13.	Is there any cost/fee for each plan submission?	Currently, there is no requirement for payment of fees for FI plan submission.
14.	What factors determine if a lift qualifies as a home lift?	Home lift refers to a lift, not being common property, installed in a private home solely for the use of its occupants.
15.	Does the updated regulation apply to lifts and escalators undergoing replacement or modernisation?	Yes. If the major A/R works for FI commence on or after 1 July 2025, and there is no corresponding BP or ST plans submitted before 1 July 2025, they will be subject to the regulation of the FI Regs.
New Regulatory Regime for Man Machine Interface (MMI) of Mechanised Car Parking System (MCPS) *BCA presented on the new regulatory requirements for new and existing MCPS with effect from **1 July 2028**.*		
1.	Can the SPE (Lift & Escalator) be the QP for the Mechanized Car Parking System (MCPS)?	The QP(Plan), as well as the QP(Sup), for the MCPS must be an SPE(L&E).
Lift and Escalator Safety: Key Audit Findings and Incident Learnings *BCA presented key findings from BCA inspections and learning points from incidents for the period between October 2023 and September 2024, including reminders on duties of stakeholders (i.e. Owners, Service Contractors, SPE)*		
No questions regarding this item were raised.		

Maintenance Control Plan (MCP) *BCA presented the new requirement to include a Maintenance Control Plan (MCP) for FIs relating to new lifts. Lift contractors are to prepare and hand over the MCP to the owner prior to the application for the first Permit-To-Operate (PTO). Developers, owners, or building managers would be required to submit the plan before applying for the Temporary Occupation Permit (TOP) or Certificate of Statutory Completion (CSC).*		
1.	Regarding MCP, recommended condition assessment is around 15 years mark. This recommendation seems reasonable for motor room lift type, should the recommended CA for machine room-less lift be shorter?	The 15th year mark for condition assessment is a recommended timeframe based on typical wear and tear as well as parts availability. The condition assessment is recommended to be conducted every 5 years, or a more frequent interval based on the SPE's recommendations, in view of the potential non-availability of replacement parts due to obsolescence.
2.	Lifts and escalators with a lifespan of over 15 years require modernization. However, if the equipment is still in working condition with regular checks and Original Equipment Manufacturer (OEM) parts replacement, what are the recommendations?	Modernisation of old lifts and escalators is not mandatory. Notwithstanding, owners should be cognizant that when replacement parts, particularly the safety components, are no longer in production and no suitable substitute is available, the downtime could be much longer and the cost of repair would be much higher than before.
Recap of Circulars issued in 2024 *BCA presented a recap of the circulars that were published in 2024, with emphasis on the key points conveyed in each circular.*		
1.	When is the next lift and escalator Certificate of Competency (COC) course, and must a technician without COC perform maintenance in pairs?	Please refer to the following website for the next available courses - https://www.ite.edu.sg/courses/part-time-courses/skillsfuture-series-certificate-of-competency/engineering The FI Regs requires technician to attain the Certificate of Competency (COC) in Lift Maintenance for Lift Specialist before he/she could check and maintain lifts/escalators independently without supervision. Otherwise, the lift/escalator service contractor must ensure that the technician is supervised by a supervisor who possesses the said COC qualification and is competent to supervise the maintenance of an escalator or lift.

2.	With an ageing population and increased usage of PMA and PMD impacting lift door operation. Is BCA looking at lift door design increased robustness to reduce lift door faults?	Both SS 550:2020 and EN 81-20:2014 standard includes updated strength requirements for both landing and car doors, as well as car walls. Doors must now include retainers to keep the door panels in place if the main guiding elements do not operate as intended. Car and landing doors must also be tested to withstand an impact force equivalent to the impact of a person colliding with the door at running speed. The strength requirement of the car walls is such that they must be capable of withstanding forces that are equivalent to a person pushing against them. The current standards do not have requirements for Personal Mobility Aids (PMAs) and Personal Mobility Devices (PMDs). Nonetheless, if the owner of the lift assesses that there is a potential risk from such personal mobility devices in his premises, he may specify higher door performance in his contract for new lifts. *Note: SS 550:2020 is a modified adaptation of EN81-20:2014.*
	Others	
1.	What courses are available to educate owners on how to check on maintenance service provider?	Owners may refer to the Good Practices Guide for Lift Owners (click here) that BCA has earlier published. Additionally, BCA has also recently published enforcement actions taken on L&E contractors (click here). Owners may refer to these publications for the selection of maintenance service provider and consider deploying technological solutions such as Remote Monitoring & Diagnostics (RM&D) to continuously monitor the lift's performance. Owners who wish to assess the performance of the maintenance service provider or the condition of the lift may consider directly engaging an independent Specialist Professional Engineer (SPE) to conduct such assessment. To broaden fundamental technical knowledge and management of lifts, owners or facility managers may wish to attend a two-day course by Singapore Polytechnic on Lift Course for Facility Managers.
2.	The escalator magnetic bollard's floor plate is not mechanically fastened, making some bollards loose and unsafe. Are there BCA guidelines to address this?	If there is a risk of magnetic bollard causing the floor plate to be lifted inadvertently by members of the public, it is recommended that the floor plates are mechanically fastened. For installation of magnetic bollard on escalator, please contact BCA for more information on the safety guidelines.

3.	During EIT if an LEI found a non-compliance defect that can be corrected by the lift contractor, who should be responsible to report the defect to BCA? Note: Lift and Escalator Inspector (LEI) is being referred to as a Fixed Installation Inspector (FII) as defined in the FI Regs.	In the event that a Fixed Installation Inspector (also refer to as FII) spots issues that can potentially affect the safe operation of the FI, he/she may refer to the maintenance service contractor for rectifications and the certifying SPE for further assessment. If the issue is a reportable safety risk(s) as defined in the Building Control (Reportable Matters) Regulations 2025, BCA should be informed accordingly. The two types of reportable matters in the Regulations are primarily related to: i. incident reporting - such incidents are to be reported to BCA within 6 hours ii. systemic defects - such defects are to be reported to BCA within 72 hours. An FII who found potentially systemic defects may refer to the maintenance service contractor for rectifications and the certifying SPE for further assessment. Once assessed to be systemic, the SPE and service contractor must report it to BCA.
4.	Can a third party replace parts of the lifts or escalators while being maintained by another party?	There is currently no requirement on having only OEMs to maintain lifts or escalators. However, the lift or escalator service contractor which carries out works in relation to the lift or escalator must be registered under the Regulatory Workhead RW02B and RW3B respectively. It is also advised that owners should assess if such non-OEM maintenance contractor (or refer to as a third-party contractor) has the necessary knowledge, competency and access to proper replacement parts to carry out the maintenance works adequately and safely. Fire Safety Certificate (FSC) does not require renewal unless there are fire safety works being carried out. And if so, the Qualified Person (QP) (a registered Architect with Singapore Institute of Architect (SIA) or a Professional Engineer registered with the Professional Engineers Board (PEB)) will need to endorse and submit the plans when they apply with SCDF for the new FSC.
5.	Is the landlord allowed to outsource the lifts to non-OEM vendors?	
6.	Can the submission of PTO renewal and a following FSC be done by the lift OEM if the OEM isn't the maintenance service agent?	
7.	Is travellator/moving walk considered under escalator?	Yes, travellator, or moving walks, are considered as escalators. Hence, they are also subject to the requirements of the FI Regs.