



Tightening Upstream Compliance for Fixed Installations:

Clarifications and Reminders relating to Submission of FI Plans

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Objectives

To clarify the requirements for FI plan submission and other related processes (alternative solution, waiver).

BCA will not hesitate to return poor submissions without checking

BCA will also place the submissions from QPs, who repeatedly make poor submissions, last in the processing queue

Agenda

Reminder on Type Testing requirements

Clarifications on process and overall requirements:

- When do I make a submission?
- How do I make a submission?
- How to choose my Project reference number for submission?
- How do I key in the Project title?
- What do I submit for different project scenarios?
- What are the related details and documents for common major A/R works?

Clarifications on details of submission and follow up:

- How to fill in the application form (FormSG)?
- How to fill in the authorisation form?
- How to fill in the FI detail sheet?
- How to follow up on Written Directions?

Case study

Reminder on Type Testing Requirements



Type Testing Certification Submission Requirements

- Submit the full list of certificates for both **Lift system model** and all relevant **safety components**
- Both **type testing/type examination certificates and annex reports** must be submitted
(Conformity certificates, test certificates are not acceptable)
- Only documents in **English** will be accepted
- All documents with expiry dates **must still be valid** at time of submission

Type Testing Certification Submission Requirements

- Type testing standards must be **EN81-50** for **components**. **Lift models** have to be type tested to be compliant to **SS550:2020** or **EN81-20**.
- Only certificates from **Certification Bodies recognised by BCA** will be accepted (please check BCA website for more information)
- The list of **type testing certificates** for the safety components that can be used with the lift system model **must be stated clearly in the lift system model certificate or annex to the certificate**.
- If the submitted safety component certificate number is different from the one listed in the lift system model documents, the submission will not be approved.

List of Type Testing Certificates Required

S/N	Safety Component Certificates required	Naming convention of files
0	Lift System Model	LS_(model no. of lift system)_(certificate no.)
1	Landing door locking device	LDL_(model no. of component)_(certificate no.) E.g. LDL_A2345_BC67890X
2	Car door locking device	CDL_(model no. of component)_(certificate no.)
3	Safety gear	SG_(model no. of component)_(certificate no.)
4	Overspeed governor	OSG_(model no. of component)_(certificate no.)
5	Buffer	BF_(model no. of component)_(certificate no.)
6	Safety circuits containing electronic components/ Safety circuit containing programmable electronic systems in safety related applications for lifts (PESSRAL)	SC_(model no. of component)_(certificate no.) For safety circuit containing electronic components Or SCP_(model no. of component)_(certificate no.) For safety circuit containing PESSRAL

List of Type Testing Certificates Required

S/N	Safety Component Certificates required	Naming convention of files
7	Ascending car overspeed protection means (ACOP) detection subsystem	ACOPD_(model no. of component)_(certificate no.)
8	Ascending car overspeed protection means (ACOP) stopping subsystem	ACOPS_(model no. of component)_(certificate no.)
9	Unintended car movement protection means (UCMP) detection/control subsystem	UCMPD_(model no. of component)_(certificate no.)
10	Unintended car movement protection means (UCMP) stopping subsystem	UCMPS_(model no. of component)_(certificate no.)
11	Self-monitoring of brakes/hydraulic valves (if brakes or hydraulic valves are used as stopping subsystem for ACOP and/or UCMP)	SM_(model no. of component)_(certificate no.)
11	Rupture valve/one-way restrictor (for hydraulic lifts only)	RV_(model no. of component)_(certificate no.) For restrictor Or RS_(model no. of component)_(certificate no.) For one-way restrictor

List of Certification Bodies Recognised by BCA

Lift System Model and PESSRAL

- Liftinstituut B.V.
- TÜV SÜD 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)

Other Safety Components

Accredited notified bodies (NoBo) in Europe and authorised certification bodies in China.

List of NoBo for Lift in Europe:

Link: ([EUROPA – European Commission – Growth – Regulatory policy - SMCS](#))

List of Certification bodies in China:

- 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 information on certification of accredited Chinese Certification Bodies, please refer to the website link below:

<https://www.samr.gov.cn/tzsbj/xxgs/>

Clarifications on process and overall requirements



When do I make a submission? – New Installations



The installation of new FI shall not commence until the FI plan approval is obtained.

When do I make a submission? – Full FI Modernisation (i.e. Full Replacement)

Terminate the old FI
in LEAP and
dismantle

Obtain BP
approval

Submit FI
plans

Obtain FI
plans
approval

Commence
FI works

The owner should terminate the old FI in LEAP first before commencing the dismantling of the fixed installation. This can take place prior to obtaining FI plan approval.

The installation of new FI shall not commence until the FI plan approval is obtained.

When do I make a submission? – Major A/R works



The works shall not commence until the FI plan approval is obtained.

After obtaining the FI plan approval, the owner should suspend the FI in LEAP first before commencing the fixed installation works.

When do I make a submission? – **Alternative Solution/Waiver**

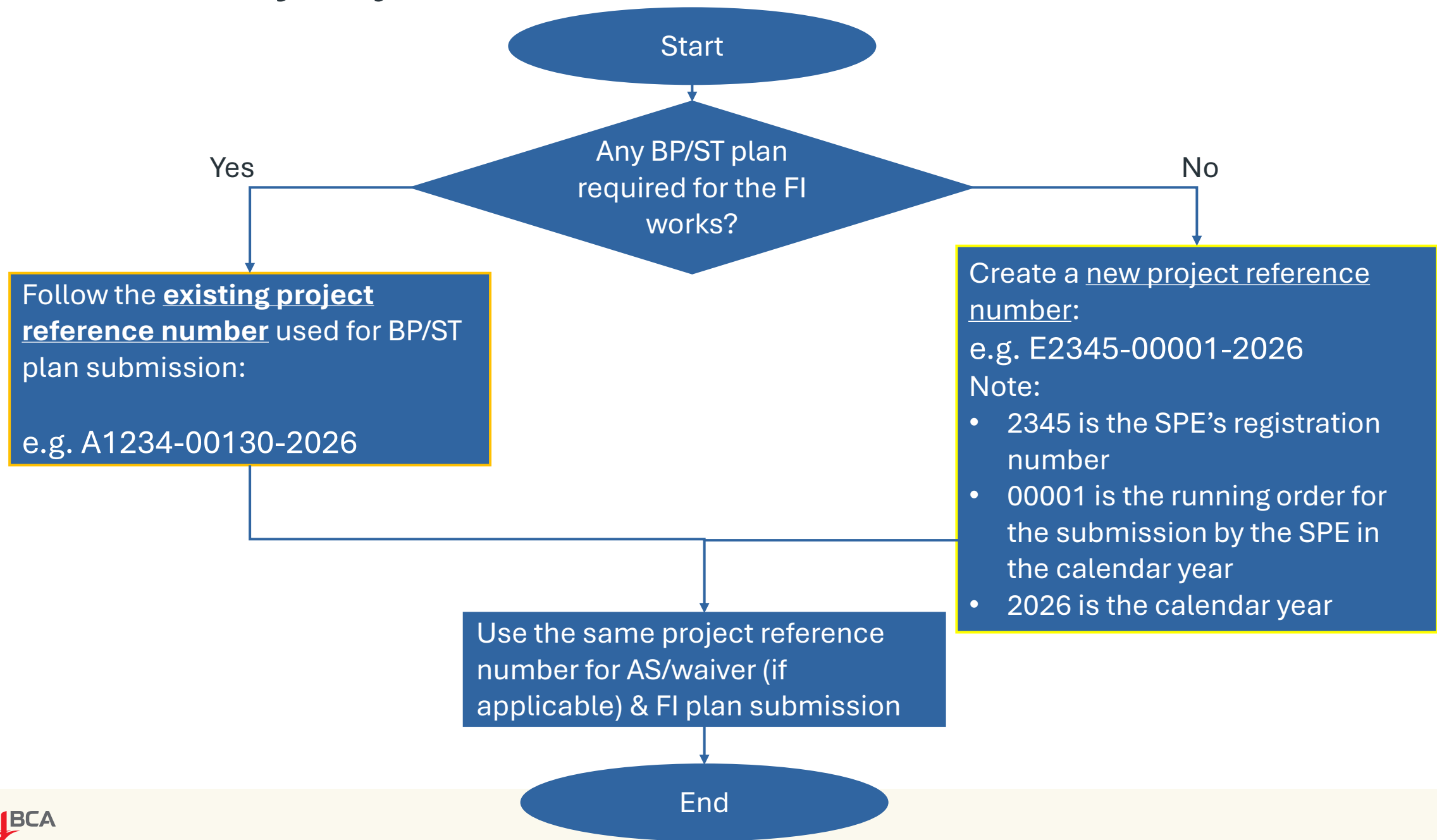


Any **alternative solution** or **waiver** application should be approved prior to the submission of FI plans. The application can be submitted anytime prior to this when ready.

How do I make a submission?

- If there are prior submission of BP and/or ST plans via **Corenet X**, FI plan submission should be made via **Corenet X** as well
- Otherwise, submission will be through **FormSG** and **Highway**

How to choose my Project reference number for submission?



How do I key in the Project title?

- If you are using an existing project reference number used for BP and/or ST plan submission, use the **same project title** as the existing project.
- If you are creating a new project just for FI plan submission, follow the format below:

E.g.

- New Lift Installation for 23 lifts at _____ Hotel at 2 _____ Road
- Full Lift Modernisation for 4 lifts at _____ Church at 3 _____ Street
- Major A/R works to 5 escalators at _____ Mall at 14 _____ Avenue

What do I submit for different project scenarios?

Type of documents/data required	New lift in new buildings or New lift shaft/machine room added to existing buildings	Full Lift modernisation (i.e. Full replacement) in existing lift shaft/machine room	Major A/R works
Authorisation form	✓	✓	✓
Site plan and floor plan of lift	✓		
Floor plans showing machine room layout and access route to machine room	✓		
FI details sheet	✓	✓	✓ Basic lift details + Related details only
Hoistway and lift car drawings showing car top and car bottom refuge spaces etc	✓	✓	✓ Only when there is replacement of lift car
Type testing certificates (lift system model and all safety components)	✓	✓	✓ Related documents only

What are the related details and documents for common major A/R works?

Note: These are just examples of common major A/R works and does not represent the exhaustive list of such works. Please refer to the First Schedule in BC FI Regs for the full lists of major A/R works.

Replacement of traction machine

FI detail sheet to include (other than basic lift details and code of compliance)	Documents required
<ul style="list-style-type: none">• Rated Load• Car Mass• Max Décor weight• Traction Machine Model• Machine Brake Type• Machine Brake Model• Brake Torque• All ropes related parameters• UCMP stopping means related parameters (if applicable)• ACOP stopping means related parameters (if applicable)	<ul style="list-style-type: none">• UCMP stopping means type testing certificate and report (if applicable)• ACOP stopping means type testing certificate and report (if applicable)• Self-monitoring of UCMP/ACOP stopping means type testing certificate and report (if applicable)

What are the related details and documents for common major A/R works?

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Replacement of controller

FI detail sheet to include (other than basic lift details and code of compliance)	Documents required
<ul style="list-style-type: none">• Controller model• E/E/PE related parameters• UCMP detection/control means related parameters	<ul style="list-style-type: none">• E/E/PE type testing certificate and report• UCMP detection/control means type testing certificate and report

What are the related details and documents for common major A/R works?

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Replacement of overspeed governor

FI detail sheet to include (other than basic lift details and code of compliance)	Documents required
<ul style="list-style-type: none">• Governor related parameters• ACOP detection means related parameters	<ul style="list-style-type: none">• Governor/ACOP detection means type testing certificate and report

What are the related details and documents for common major A/R works?

Note: These are just examples of common major A/R works and does not represent the exhaustive list of such works. Please refer to the First Schedule in BC FI Regs for the full lists of major A/R works.

Replacement of safety gear/buffer

FI detail sheet to include (other than basic lift details and code of compliance)	Documents required
<ul style="list-style-type: none">• Rated Load• Car Mass• Max Décor weight• Safety gear/Buffer related parameters	<ul style="list-style-type: none">• Safety gear/Buffer type testing certificate and report

What are the related details and documents for common major A/R works?

Note: These are just examples of common major A/R works and does not represent the exhaustive list of such works. Please refer to the First Schedule in BC FI Regs for the full lists of major A/R works.

Addition of rope gripper/sheave jammer for ACOP/UCMP stopping means

FI detail sheet to include (<u>other than basic lift details and code of compliance</u>)	Documents required
<ul style="list-style-type: none">• Rated Load• Roping ratio• ACOP stopping means related parameters• UCMP stopping means related parameters <p>Note: Depending on the scope of the type testing certification, may also require additional specifications such as car mass, max. décor weight</p>	<ul style="list-style-type: none">• ACOP/UCMP stopping means type testing certificate and report <p>Note: Depending on the scope of the type testing certification, may also require additional document such as calculation of braking capacity</p>

What are the related details and documents for common major A/R works?

Note: These are just examples of common major A/R works and does not represent the exhaustive list of such works. Please refer to the First Schedule in BC FI Regs for the full lists of major A/R works.

Escalator works

Types of escalator works	Drawings and Documents required
Changes to Balustrade	Drawings for balustrade height, unrestricted area, distance between handrails
Changes to Step band (including steps)	Proof test of steps, step chain calculations
Changes to Brake system Changes to Drive system Changes to Rated speed	Proof of stopping distance

To submit the basic escalator details, code of compliance and other relevant specifications as well.



Clarifications on details of submission and follow up




How to fill in the application form?

If the FI works **requires BP/ST plan submission** e.g. strengthening work to lift shaft, opening of new landing opening

3. Does this project have a prior submission for BP/ST approval in Corenet?
Do note that if Building Plan is required for this project, the approval for the Building Plan will need to be obtained before this application can be made.


<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
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4. Project Reference Number

Note 1: Where there an existing Building Plan or Structural Plan in CoreNet for this submission, please enter the project reference number provided by the coordinating QP for e.g. A1234-00001-2025

Note 2: Where there is no existing Building Plan or Structural Plan in CoreNet for this submission, please assign a new Project Reference Number based on the convention <Exxxx-yyyyy-YEAR> where <xxxx> is your PE registration number and <yyyyy> should be a running number used by you for FI plan project assignment e.g. E1234-00001-2025.



Fill in the existing project reference number used for BP/ST plan submission

How to fill in the application form?

If the FI works **does not require any BP/ST plan submission**

3. Does this project have a prior submission for BP/ST approval in Corenet?
Do note that if Building Plan is required for this project, the approval for the Building Plan will need to be obtained before this application can be made.

<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
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4. Project Reference Number

Note 1: Where there an existing Building Plan or Structural Plan in CoreNet for this submission, please enter the project reference number provided by the coordinating QP for e.g. A1234-00001-2025

Note 2: Where there is no existing Building Plan or Structural Plan in CoreNet for this submission, please assign a new Project Reference Number based on the convention <Exxxx-yyyyy-YEAR> where <xxxx> is your PE registration number and <yyyyy> should be a running number used by you for FI plan project assignment e.g. E1234-00001-2025.

Create and fill in a new project reference number

How to fill in the application form?

For major A/R works

47. Description of Change (Lift)

Describe the scope of work in the above field clearly to minimise the need for further clarifications:

State clearly whether it's a replacement/modification/addition/removal

e.g.

- Replacement of traction machine (Change of geared machine to gearless machine)
- Replacement of lift car with changes to system mass more than 5%
- Replacement of lift system except landing doors
- Addition of rope gripper to be used with existing UCMP detection subsystem
- Replacement of controller (replacing existing UCMP detection subsystem as well)
- Addition of UCMP detection subsystem to be used with existing traction machine brakes (gearless traction machine, have brake redundancy, have self-monitoring)

How to fill in the authorisation form?

SECTION B - (To be completed by the Developer of the Fixed Installation Works, where applicable)

For the developer to appoint the plan submission QP and/or FI works contractor

SECTION C - (To be completed by the Builder engaged by the Developer, where applicable)

For the builder (main contractor) to appoint the plan submission QP and/or FI works contractor

SECTION D - (To be completed by the Fixed Installation Works Contractor appointed by the Developer or the Builder, where applicable)

For the FI works contractor to appoint the plan submission QP.

However, the FI works contractor will still have to be appointed by either the developer (in section B) or the builder (in section C).

If developer or builder has already appointed the plan submission QP and FI works contractor in section B or C, leave section D blank.

How to fill in the FI detail sheet?

Group

This column is mandatory.

Assign a group based on the design and specifications of the work.

Use numerical value for the group numbers (1, 2, 3...)

If there is only 1 group, use '1'.

Lift Number

This column is mandatory.

For submissions with multiple addresses in a single submission (e.g.

HDB LUP), please fill in the address of the FI behind the lift number:

e.g. PL1 (52 Jurong Gateway Road)

Lift ID

This column is mandatory for FI undergoing major A/R works.

Not applicable for New installations or Full FI modernization (i.e. Full replacement) as the FI are considered as new equipment (should leave blank).

How to fill in the FI detail sheet?

Code of Practice

This column is mandatory. To fill in the COP for the entire lift for new installations/Full FI modernisation (i.e. Full replacement) and the COP of the parts undergoing major A/R works for modernisation/upgrading projects.

Code of Practice (Others)

To fill in this column with the relevant code/standard if the COP is selected as “Others” in the previous column e.g. Japan Elevator/Escalator Engineering Standards (JEES). Do note that Alternative solution approval will be required for such deviation.

Deviation from code

This column is mandatory if there is a deviation from code. Any alternative solution/waiver should be indicated here. The Notice of Approval for the Alternative Solution should be included as a submission document.

How to fill in the FI detail sheet?

Permissible
Mass (kg)

For “**System Type Testing Details**” and “**UCMP stopping means**”/ “**ACOP stopping means**”:

- We are no longer requiring the submission of such information.

For “**Safety Gear**”/ “**Buffer**”:

- To provide **maximum allowable P+Q**

How to follow up on Written Directions?

Resubmission:

Select “**Resubmission**” under “Type of Submission” and quote the formSG response ID for the original submission under “Related Submission Number”.

Request for extension of time:

Write in to the Processing officer for your case through the same correspondence email chain **5 days before the expiry date** of the Written Direction to ask for extension of time. Other wise, the case will be **disapproved**.

How to follow up on Written Directions?

After disapproval:

A fresh submission has to be made (select “**New**” under “Type of Submission” and fill in all the required information as per new submission).

The same project reference number can be used for the fresh submission.



Case Study

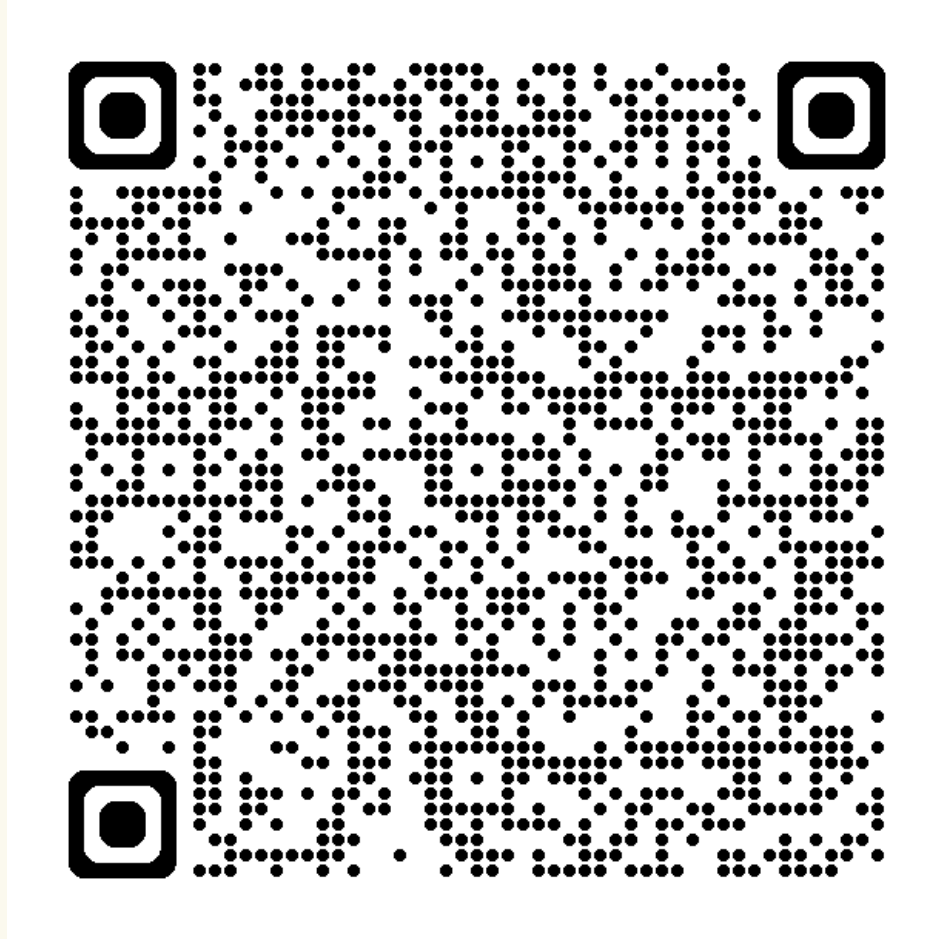


Forgery Case

BCA received a **forged type testing certificate** during one of the FI plan submission cases:

- PO pointed out the missing type testing standard in the submitted certificate
- QP resubmitted a revised certificate obtained from the lift supplier through the lift installer in just a few days' time
- Upon review, it was found that there were signs of tampering of the document
- After investigation conducted with the QP and contractor, it was confirmed that the document was forged by the lift supplier

To avoid delay in the processing of submissions, SPEs are reminded to be vigilant and look out for any signs of forgery/tampering of certificates and relevant report. When in doubt, please verify the authenticity of the document with the supplier or certification body.



Thank you

Link to webpage on Fixed Installation
Legislation and related materials



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