Alpha
Consulting Engineers Pte Ltd

FEEDBACK REPORT FORM

Ref No: 147-040910(S)

To: LCT From: LFY

Job No./Project: Lift Master Specs Section 12 - Site Tests *(where applicable)*

Source of feedback:

Scope of Feedback: * ☐ Quality ☐ Environmental ☐ Administrative ☐ Contractual ☐ Technical ☒ Specification ☐ Others

Section A : Problem & Cause

Tests for operation of safety gears, car buffers and counterweight buffers missing.

Section B : Mitigating Action Taken, if any

Section C : Suggested Corrective Action

Requirements for tests added.

Section D : Approved Corrective Action

Document Affected * : ☒ Yes ☐ No Affected Document : Pgs. L/12-1 & L/12-2

Approved By : LCT Date : 14/9/10

Section E : Action

Action By : NA hm

Targeted Completion : End Sept 2010

Actual Completion : 14 Sept 2010 Verified By :

** Mark [X] where appropriate*

Distribution:

Select one of the following headings

LIFT & ESCALATOR INSTALLATION

LIFT INSTALLATION

ESCALATOR INSTALLATION

SECTION 12 - SITE TESTS

12.1 Commissioning Tests

The complete installation or any part thereof shall be tested, both before and after connection, to the requirements of the Architect and in accordance with Section GR of this Specification.

All tests shall be conducted in the presence of, and to the satisfaction of the Architect. The supply of all necessary instruments, test weights, connections, skilled and unskilled labour required for the tests shall be deemed to have been included in the Works.

After completion of the tests, four (4) copies of accurate records of all tests, test certificates and a schedule of the results shall be submitted. The format of the results shall be subjected to review by the Architect.

The site tests to be carried out for the entire Installation shall be in accordance with the relevant clause of the Singapore Standards SS 550, CP 15 and CP 209, including the following, if not already covered in the Codes:

(a) Insulation resistance tests to earth for all power and control cables, to confirm compliance with the current edition of the Singapore Standard CP 5: Code of Practice for Electrical Installations.

(b) Earth continuity test for each circuit of the installation to ensure that the impedance of the earth fault loop is such as to permit compliance with the requirements of the current edition of Singapore Standard CP 5: Code of Practice for Electrical Installations.

(c) Tests on every lift as well as each group of lifts under no load, 50% load and full load conditions, to verify satisfactory performance of the lifts during starting, accelerating, running, decelerating, levelling and stopping including door operation and closing pressure. The following checks/measurements shall be carried out during the tests:

  (i) Check and record floor-to-floor performance time, speed, levelling accuracy and smoothness of ride.

  (ii) Check and record door opening and closing times of each lift at selected landings to be agreed by the Architect.

  (iii) Verify the specified operation requirements of the double deck lifts (if applicable).

  (iv) Check and record readings of current, voltage and power factor for each lift as well as each group of lifts. These readings shall be taken in the up and down direction with empty car, balanced car and full load in the car.

  (v) Check and record temperature rise in the windings of hoist motor of each lift. Ambient temperature of the lift machine rooms and hoistways shall be also recorded.

(vi) Test downward operating safety fears with 100% load with the safety gear operated either by overspeed or via a test groove provided on the governor for the purposes of verifying the correct operation of the safety gear and overspeed assemblies as installed.

(vii) Test car buffers by running the lift car carrying 100% rated load, at contrast speed onto the buffers.

(viii) Test counterweight buffers by driving the empty car upward so that the counterweight strikes the buffers at contrast speed.

(d) Tests to verify satisfactory operation of the interlock and safety devices of the lifts when loaded with the contract loads. Overspeed tests shall be made with ropes attached and all electrical apparatus operative except the overspeed switches on the governor of the lifts.

(e) Tests to verify that the battery-operated emergency supplies to all lift car lighting, ventilation, alarm bell and also the emergency power operation of all groups of lifts will comply with the specified requirements and the Authority's approval. Tests on batteries and charger to ensure satisfactory performance.

(f) Tests to verify satisfactory operation of the intercom system.

(g) Tests to verify satisfactory operation of the loudspeakers in all lift car cages in conjunction with the Building Sound System.

(h) Tests on the Fireman's Lifts to ensure that the Local Authority's requirements for fire lifts are met.

(i) Tests to verify satisfactory operation of each escalator under partial and full load conditions including starting, stopping and reversing, checking of speed, operation of interlocking and emergency devices etc. Proper records shall be kept.

(j) Tests to verify satisfactory operation of each lift table under partial and full load conditions including starting and stopping, checking on speed, overload, operations of interlocking and emergency devices etc. Proper records shall be kept.

(k) Tests to verify that all controls and indications on the lift supervisory control centre are functioning properly.

(l) Tests to verify satisfactory operation of the lifts in the event of power failure and/or the activation of the fire alarm system.

(m) Test to verify satisfactory operation of the stairlifts in accordance with the requirements of BS 5776.

12.2 Tests on Completion

The Sub-Contractor's responsibilities and contractual obligations with regards to the plant operation after the commissioning tests shall be as detailed in Section GR of this Specification.