

USA Ground Operations CIL Sheet DEC 15 1999

Critical Item: Safety
 NASA Part No: None
 Mfg/Part No: Northern Elevator Limited / HO970
 System: FSS Electrical Passenger Elevators

Criticality Category: 1S
 Total Quantity: 4

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
None	1	Pad-A	K60-0597-01	420.00	80K58931 / All
None	1	Pad-A	K60-0597-02	420.00	80K58931 / All
None	1	Pad-B	K60-0597-06	420.00	80K58931 / All
None	1	Pad-B	K60-0597-07	420.00	80K58931 / All

Function:

Provides protection against car over-speed/ run-away car.

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
09FY018-001.206 Fails engaged	Mechanical piece part structural failure/ governor failure. Loss of car mobility. Loss of elevator function would prevent / delay ingress of rescue personnel during Flight Crew /Red Crew/Close-Out Crew rescue operations. Possible entrapment of personnel during hazardous fuel spill or fire. Could result in loss of life during a hazardous condition.	Loss of car mobility Immediate	1S

ACCEPTANCE RATIONALE**Design:**

- Safety Brake components are typical equipment used in industry for the intended application.
- The design of the FSS elevator systems are consistent with ASME A17.1 (1994) Safety Code For Elevators And Escalators.
- Type BII are approved to 16000 Pounds each.

Test:

- The State of Florida requires bi-annual elevator inspection and certification.
- Annual testing and certification of elevators is performed per ANSI/ASME A17.1.
- OMRSD File VI requires that the FSS elevators are functionally tested (Ref. OMI S0007VL2) at T-8 hours.
- The Pad Close-out Crew performs additional functional check-out at T-25 Minutes.

Inspection:

- OMI Q3018 requires inspection and functional test after each launch.
- OMI Q6009 requires monthly inspection of Pad Electrical Passenger Elevators.

Failure History:

- Failures have been experienced with the elevator systems, however they have been attributed to burn-in type causes which do not represent current elevator operation. Critical failure modes identified are not represented in the burn-in type failures experienced.
- Current data on test failures, unexplained anomalies, and other failures experienced during ground processing activities can be found in the PRACA database. The PRACA database was researched and no data was found on this component in the critical failure mode.

Operational Use:

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Correcting Action	Timeframe
There is no action which can be taken to mitigate the failure effect.	Since no correcting action is available, timeframe does not apply.