



# Memorandum

DATE: February 1, 2018  
 TO: Distribution  
 FROM: Joseph Esposito, P.E. Principal Engineer *Jesposito*  
 RE: Electrical Engineering Design Guidelines, Changes #14

A meeting was held on January 30, 2018 at 2 Broadway, to discuss and approve Change #14 to the Electrical Engineering Design Guidelines.

The following attended the meeting:

<u>Name</u>	<u>Agency</u>	<u>Phone</u>
Joseph Esposito	CPM	(646) 252-4928
Kenneth Brown	System Safety	(646) 252-5912
Lenny Capri	MOW – Eng.	(718) 694-1118
Jimmy Lamorte	Sta. Envir. & Operations	(646) 252-4606
Mikhail Kolker	Super. Elev. – Escalator	(718) 694-4588
Henry Schober	Dvp/Chief Mech. Eng.	(646) 252-3446
Tom Thottukadavil	CPM	(646) 252-3354
James Marks	System Safety	(646) 252-5923
Mahammad Khalid	CPM	(646) 252-3799
Ketusha Patel	CPM	(646) 252-3021

Change #14, proposing that hydraulic elevators eliminate the need for a manual transfer switch (MTS).

At high volume/transfer point stations, an ATS will be installed in the Elevator Control Room.

Enclosed is the text of Change #14 for your signature and approval.

Distribution

CC

- |             |            |
|-------------|------------|
| J. Esposito | L. Capri   |
| S. Karoly   | M. Kolker  |
| H. Schober  | J. Lamorte |
| K. Mooney   | J. Lee     |
| K. Brown    |            |
| A. Suarez   |            |
| G. Cespedes |            |

CHANGE #14

STATION ELEVATOR POWER

It is proposed to Issue Change #14 to the guidelines to read as follows:

STATION ELEVATORS Change #14

Traction Elevators: Provide an ATS with line side disconnects for normal and reserve power in the elevator machinery room. Feed ATS disconnects from individual circuit breakers in Panels DB-N & DB-R located in the station EDRs. Provide a distribution panel and a lighting panel in the machinery room. Feed the lighting panel from the distribution panel. Feed the machinery room distribution from the ATS. (There is no change for Traction Elevators from Issue #13)

Hydraulic Elevators: Provide a distribution panel and a lighting panel in the machinery room. Feed the lighting panel from the distribution panel. In general, for stations, feed the machinery room distribution panel from DB-N or DB-R, depending on the loading conditions of DB-N or DB-R. For high volume / transfer point stations, provide an ATS in the elevator machinery room. Feed ATS from individual circuit breakers in panels DB-N & DB-R located in the station EDRs; Feed the machinery room distribution panel from the ATS.

Note: Distribution Panels DB-N and DB-R are each energized from one electric service only.

ELECTRICAL ENGINEERING DESIGN GUIDELINES AND STANDARDS

CHANGE #14  
STATION ELEVATOR POWER

RECOMMENDATION:

Adaptation of the elevator guideline changes, #14, is recommended based on the following considerations and on discussions between OSS, CPM and Infrastructure:

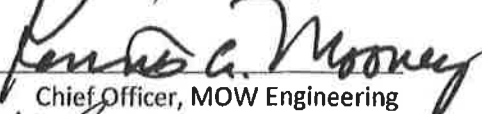
1. The proposed guideline is not in conflict with any electrical, environmental or safety codes.
2. Escalator and Elevator department request for an ATS for high volume stations only.
3. Using equipment failure rates and repair time from the IEEE Standards and NYCT maintenance records, a reliability study of the typical electrical equipment used to distribute power to elevator rooms indicates that on average, there is an increase of elevator availability with elevators fed from two electrical services instead of one service.
4. The benefits from using one feeder from one service are:
  - Capital cost will decrease
  - Maintenance costs will decrease
  - There is no impact on revenue service
  - Station appearance will be enhanced with fewer conduits in public view

RECOMMENDED:

Joseph Esposito  DATE 2/2/18  
Principal Engineer, CPM


APPROVED:

Stanley Karoly  DATE 2/2/18  
Chief Electrical Engineer, CPM

Kenneth Mooney  DATE 2/27/18  
Chief Officer, MOW Engineering

Kenneth Brown  DATE 2/15/18  
Director, Risk Assessment & Fire Safety, OSS

Antonio Suarez  DATE 2/7/18  
Chief Officer, Elevators & Escalators

Gricelda Cespedes  DATE 2/26/18  
VP & Engineer of Disputes,  
Station Program Services