

Instructor/Participant Guide



211: Escalator-Specific: Handrail Installation and Maintenance

Module 1: General Safety Procedures



Table of Contents:

Introduction.....	1
Choose a Case	2
How are Handrails Made?.....	3
Safety Guidelines.....	4
General Safety Practices	5
Safety Procedures	6
Improper PPE	7
Fire Codes and Extinguishers	8
Highlights.....	9
Setting Up Work Zones	10
Barricades.....	11
Local Safety Practices	12
Barricades and Signage.....	13
Summary	14

Table of Figures:

Figure 1: Proper Lifting Technique.....	6
Figure 2: Improper PPE	7
Figure 3: Work Zones	10
Figure 4: Barricade	11

PREVIEW ONLY



Icons Used in This Guide

Throughout the Learner's Guide, the following icons indicate the type of content being presented.



Refer To



PowerPoint



Multimedia



**Web based
Training**



Write



Ask



Individual Activity



**Small Group
Activity**



**Classroom
Activity**



Duration

Agenda

Topic No.	Topic Title	Duration
1	Introduction	5 minutes
2	How it Works Video	5 minutes
3	Safety Guidelines	15 minutes
4	General Safety Practices	30 minutes
5	Safety Procedures	20 minutes
6	Fire Codes and Extinguishers	15 minutes
7	Highlights	20 minutes
8	Setting Up Work Zones	20 minutes
9	Barricades	15 minutes
10	Local Safety Practices	15 minutes
11	Barricades and Signage	15 minutes
12	Summary	5 minutes
Total Time:		3 hours

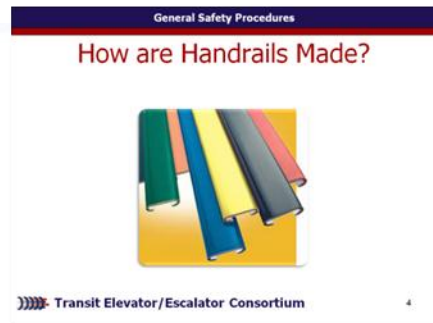


Overview

Purpose	The purpose of this module is to: <ul style="list-style-type: none">• Introduce participants to Escalator-Specific: Handrail Installation and Maintenance.	Materials	<ul style="list-style-type: none">• Rubber bands, string, balsa wood, Styrofoam, thumb tacks
Objectives	At the end of this chapter, the learner will be able to: <ul style="list-style-type: none">• Identify General Safety Procedures• Relate safe work practices to escalator maintenance	Preparation	PREPARE flip charts with the following titles: <ul style="list-style-type: none">• Class Expectations
Materials	Make sure you have the following: <ul style="list-style-type: none">• Laptop (one for leader)• Participant Guides• PowerPoint slide deck• LCD projector• A17.1 Safety Code for Elevators and Escalators• A17.2 Guide for Inspection of Elevators, Escalators and Moving Sidewalks• A17.3 Safety Code for Existing Elevators and Escalators• Heavy Duty Transportation System Elevator Design Guidelines (APTA RT-RP-FS 008-03)• Heavy Duty Transportation System Escalator Design Guidelines (APTA RT-RP-FS 007-02)• Field Employees' Safety Handbook• Transit Agency Handbook		



Instructor's Notes



Slide 4



PLAY the YouTube video on how handrails are made.



ASK what the participants found intriguing about the video.

How are Handrails Made?

What was the escalator originally created as?

What is the name of the machine that pulls the materials up inside to create the handrail?

What is inside the rubber and plastic case of the handrail?



Instructor's Notes

General Safety Procedures

Safety Procedures

- Know and follow your transit property's procedures.
- Be aware of tripping hazards especially when working with handrails. Avoid stepping on a handrail.
- Prior to entering the pit or into an escalator, know where you are going to stand and check for water problems.
- Prior to beginning work, clean up all body fluids per your transit property's procedures.



Transit Elevator/Escalator Consortium 9

Slide 9

General Safety Procedures

Safety Procedures

- Handrails can weigh several hundred pounds – use care when moving them.
- Use proper lifting techniques and get help if the load is too heavy.



Transit Elevator/Escalator Consortium 12

Slide 12



REVIEW slides 9 to 12 in the PowerPoint presentation to discuss Safety Procedures.



ASK the participants to describe how to properly lift large items.

Why is this important?



DEMONSTRATE the appropriate lifting procedure.

Safety Procedures

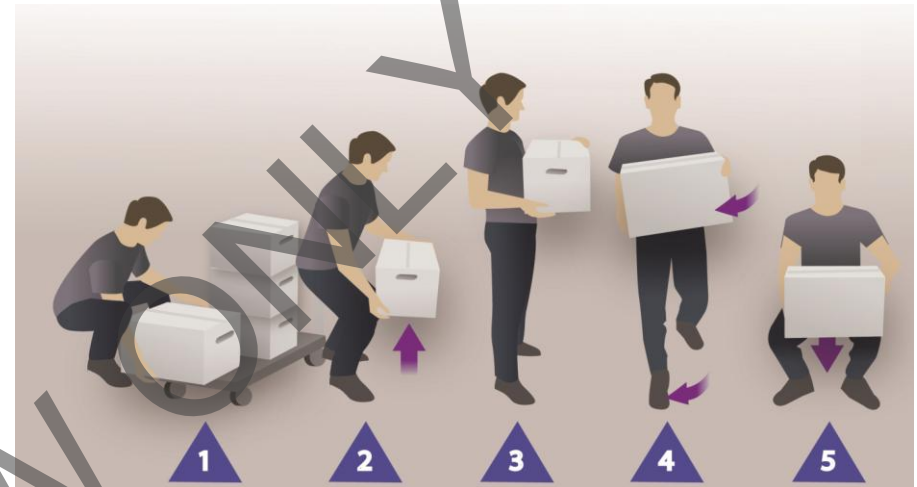


Figure 1: Proper Lifting Technique



Instructor's Notes

General Safety Procedures

Barricades

- Barricades must completely surround escalator to prevent public access.
- Barricades must be in place before any covers, panels, or work is started on the escalator.



Transit Elevator/Escalator Consortium 19

Slide 19

General Safety Procedures

Barricades

- Barricades must be securely connected (sections) and attached to the escalator balustrade panels or handrail and floor.
 - Some properties use devices installed in newel panels or decking and lock the barricades in place with hook bolt and padlocks to prevent vandalism if barricades are being left in place past work shift.
- Follow each transit property's procedure regarding signs for directing riders.

Transit Elevator/Escalator Consortium 20

Slide 20



REVIEW slides 19 and 20 and review the purpose and proper placement of barricades.



ACTIVITY: Have the participants practice setting up various styles of barricades.

Barricades

When is it appropriate NOT to use a barricade?

Describe how to properly position a barricade.

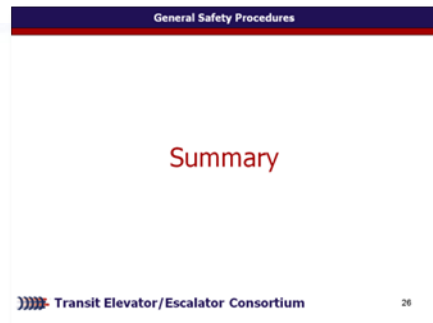


Figure 4: Barricade



Instructor's Notes

Summary



Slide 26



REVIEW slide 26 and summarize the module.



ASK the participants if they have any outstanding questions on what was presented.