PASSENGER TRAIN EMERGENCIES: AWARENESS LEVEL TRAINING

Trenton, N.J. Area Emergency Response Agencies

Gary Hearn
Regional Emergency Manager
Amtrak Police Department – Emergency Management
Pennsylvania Station, New York
Telephone: 212-630-7163
24 Hours: 646-773-6311

March 2021

So, why are we here?

To help you handle the big one….
Something like this,
***SAFELY*……**

Metro-North Railroad

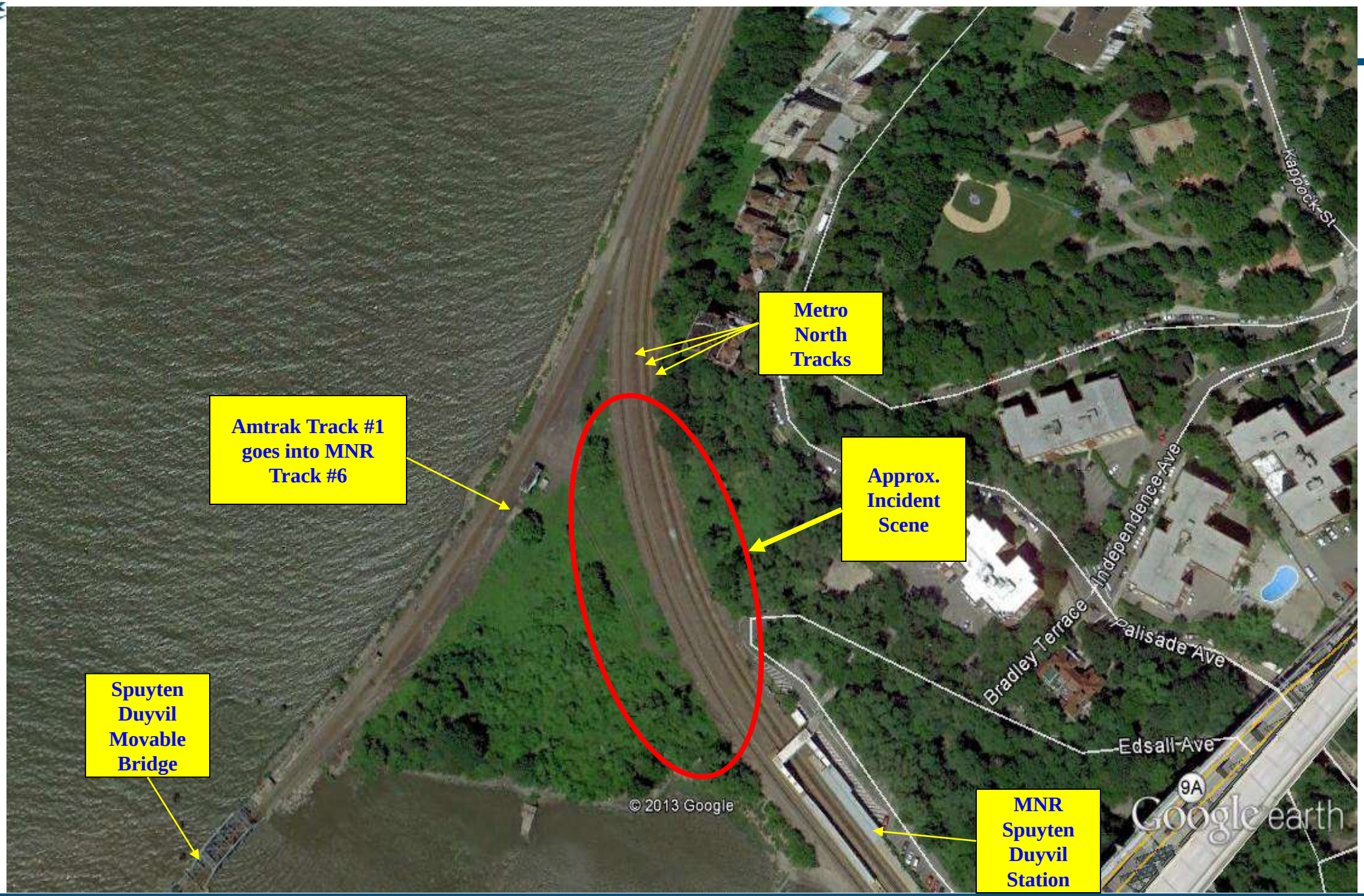
Spuyten Duyvil, Bronx, New York
December 1, 2013

Incident Details

- 0719 Hours, Sunday, December 1, 2013
- Limited Access

- **Initial response**; 3 Engines, 2 Ladder Companies, Rescue, Squad Co, & Battalion Chief

- **Initial report** " "five cars derailed, two overturned, major train wreck, numerous victims……we have multiple people trapped". – MAJOR EMERGENCY SIGNAL WAS TRANSMITTED
  Approximately 120 passengers
  Approximately 70 injuries
  4 Fatalities
  Diesel Fuel Leak


Metro North Tracks
Amtrak Track #1 goes into MNR Track #6
Approx. Incident Scene
Spuyten Duyvil Movable Bridge
MNR Spuyten Duyvil Station
Kappock St
Independence Ave
Bradley Terrace
Palisade Ave
Edsall Ave
9A
© 2013 Google
Google earth

- 13 Engine Companies
- 11 Ladder Companies
- 3 Squad Companies
- 3 Rescue Companies
- 2 Fireboats
- 11 Battalion Chiefs
- 1 Deputy Chief
- 2 Assistant Chiefs
- Chief of Department

- Major E.M.S. Response
- NYPD – Patrol, ESU, Detectives, Terrorism, Task Forces, Aviation, Harbor
- NYC OEM
- Medical Examiner
- FRA – NTSB
- MEDIA!!!

Use of Cadaver dogs to search around the train, under the train and the wooded areas in the vicinity of the train


12/01/2013


6222


STATE OF
CONNECTICUT
F


12/01/2013


F.D.N.Y.
BARRY
12/01/2013

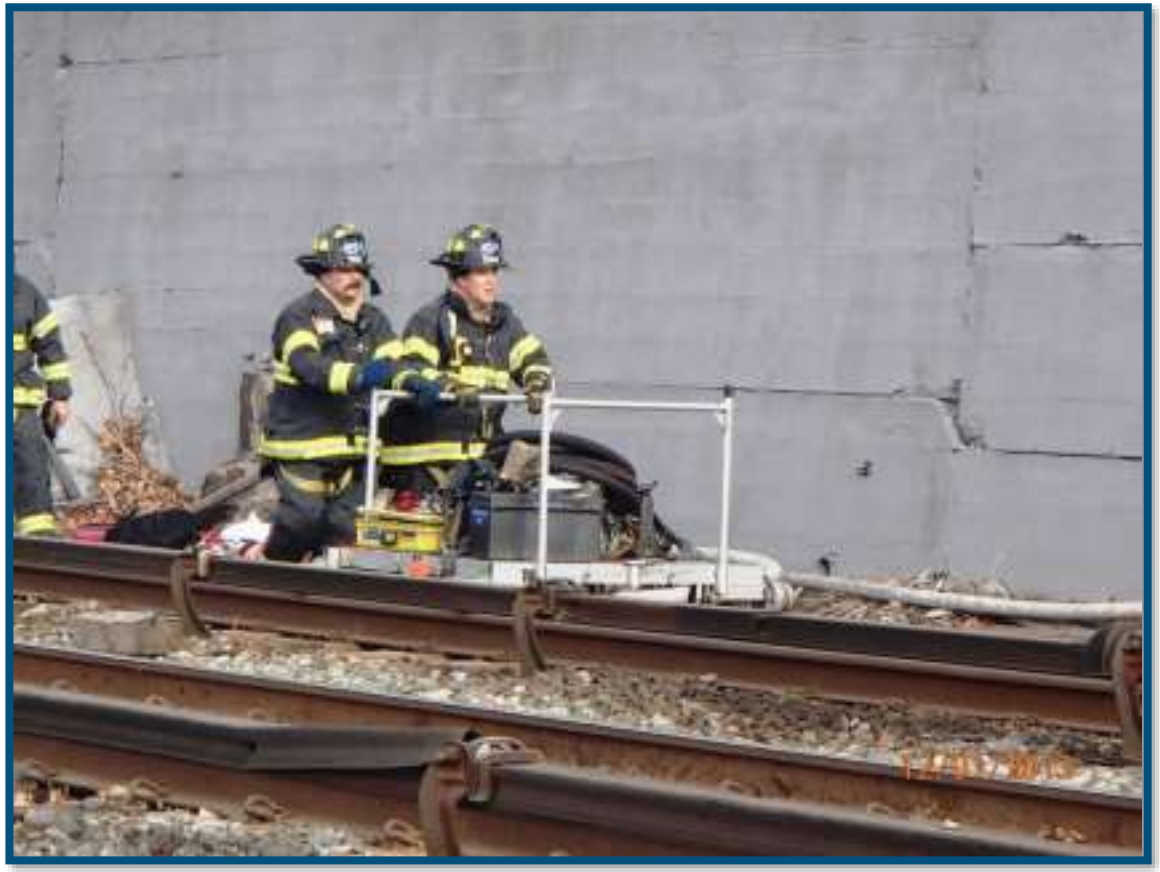
Ballast inside the cars from the force of the event


6147


EMERGENCY EXIT


1
12/01/2013


Metro-
Railroa
NEWSP




FDNY
12/01/2013

Train 188 Derailment, May 12, 2015, Philadelphia, Pa.

Amtrak Train 188
Philadelphia, PA

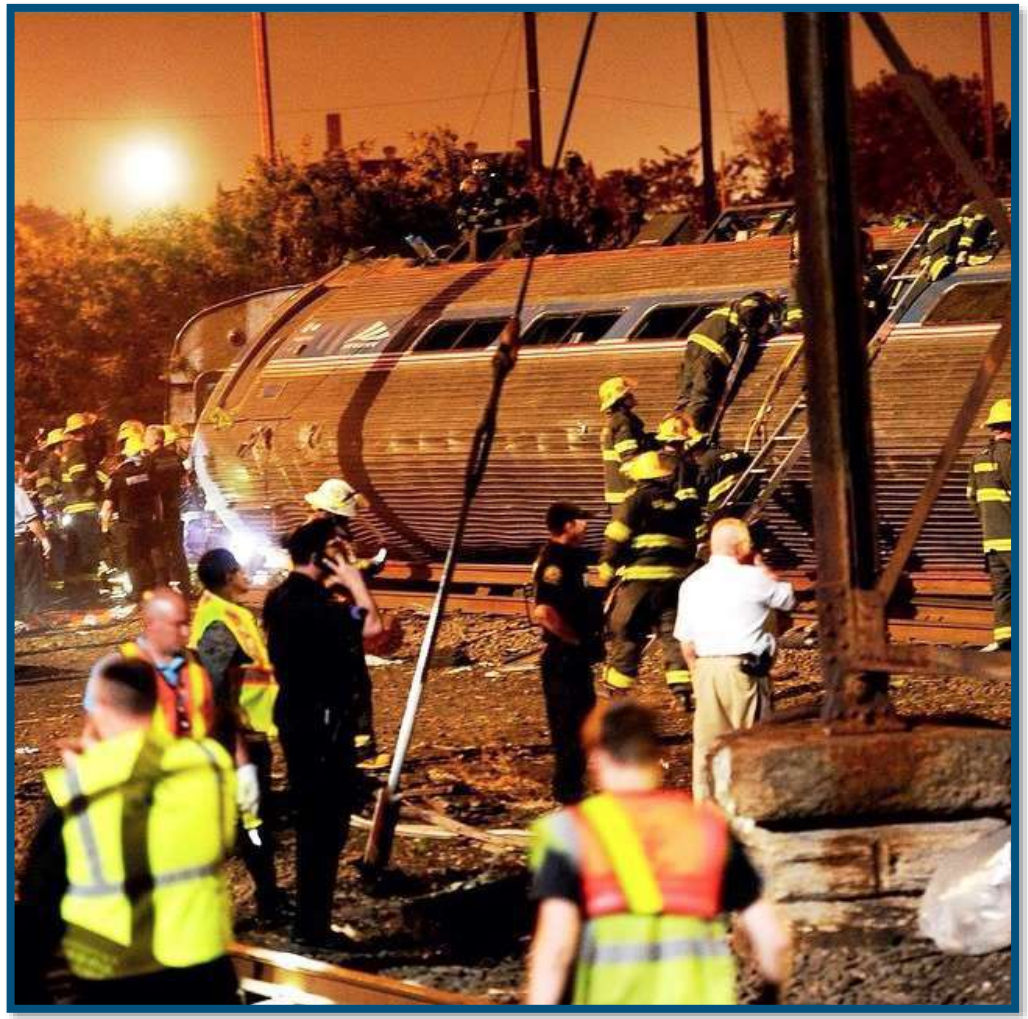
- May 12, 2015, 9:30 PM
- 238 Passengers, 5 Crew
- 8 Fatalities
- Over 200 Injured, 11 Critically


POLICE

Teamwork

Teamwork


POLICE




AMTRAK
601

Aerial of Scene

So, what if this happened in your response area?

- Access
- Size-up
- Command Post
- Operations Section Chief
- Branches/Divisions/Groups
- **Good coordination between FD, EMS & PD's is a MUST!**
- Searches
- Victim Removal Corridor
- Victim tracking
- Manpower/Staging
- Have PD establish/maintain a perimeter
- Media
- Training with the Railroads??????

YOUR SAFETY FIRST!

YOUR SAFETY FIRST!

Initial Command Post

Access to/egress from the right of way

Leave luggage/bags on the train. Have PD secure the train.

PERSONS WITH SPECIAL NEEDS/INJURED PASSENGERS (NON-AMBULATORY)!

What do we do with the passengers?

Triage, Treatment, Victim Tracking, Transportation!

The Media!

Hazmat – Ruptured Fuel Tank

Course Objectives

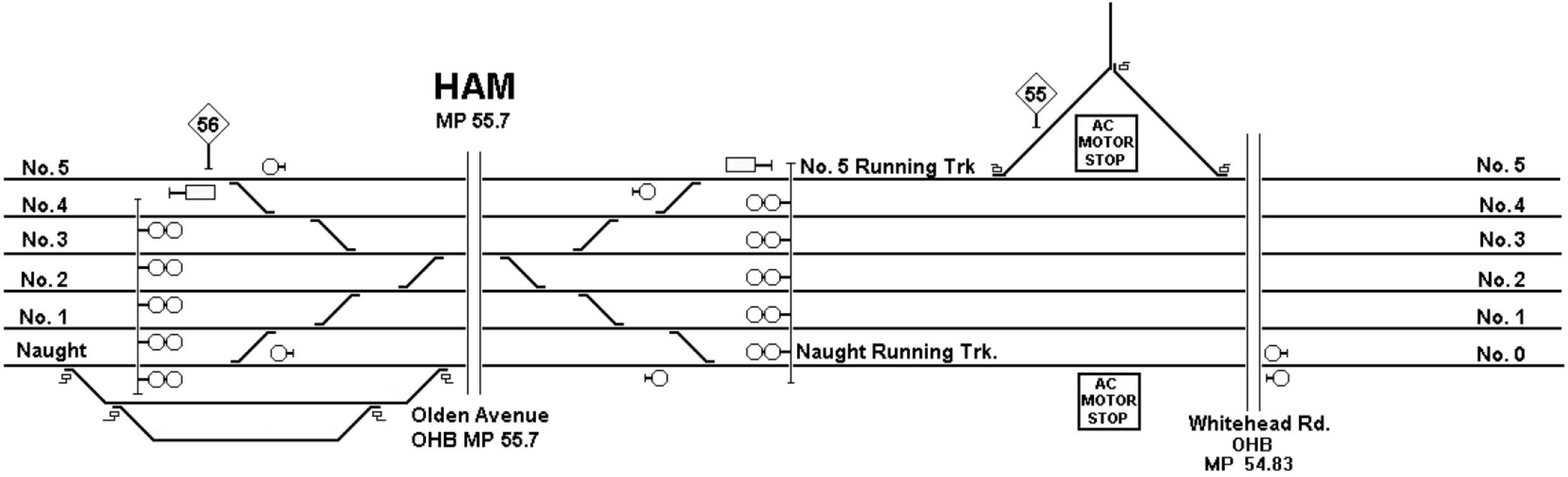
- Familiarize you with Rail Road operations
- Preparing/pre-planning for potential train incidents.
- Understand the factors that could affect your safe response to an incident.
- Recognize on-scene dangers for emergency personnel and your equipment while on or near railroad property.
- Understand the command, control & communications issues
- How to stop a train in an emergency situation.
- Identify different types of railroad equipment.

Northeast Corridor – New York Division

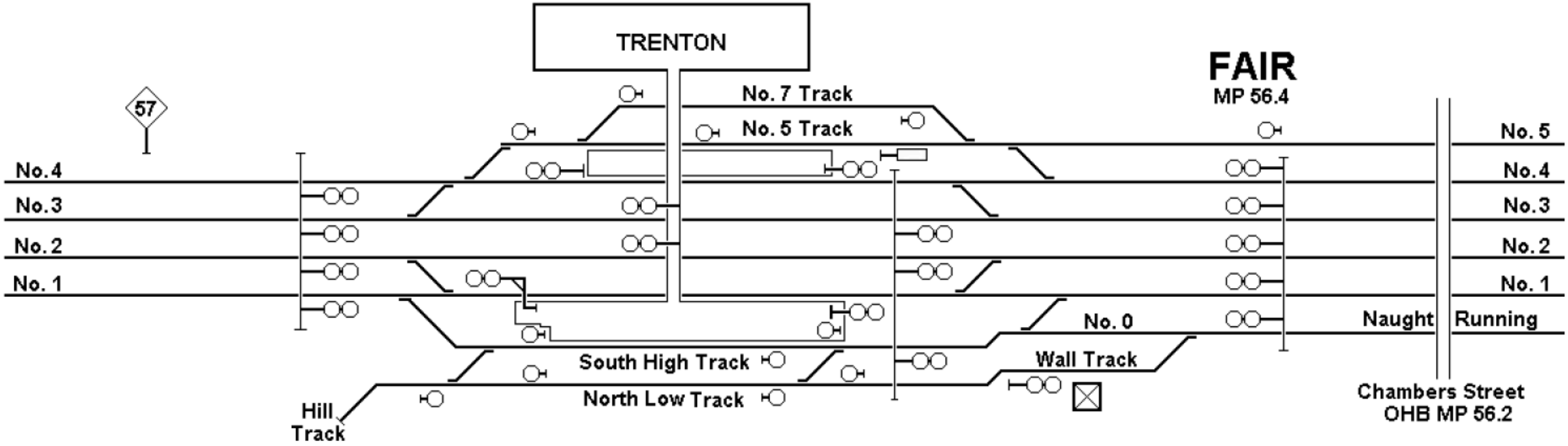
- Owned and operated by Amtrak
- Northeast Corridor = Washington D.C. to Boston
- New York Division – North Philadelphia to New Rochelle, New York
- Your response area (PRE-COVID):
  - 107 scheduled Amtrak Trains per day
  - 111 scheduled NJT Trains per day
  - 40 scheduled SEPTA Trains per day
  - Freight Trains
- **Amtrak, NJT & SEPTA Train Movement controlled by the Amtrak 40 Office, 1-212-630-7777 or 212-630-7465**
- **Amtrak Police Department: 1-800-331-0008**
- Maximum track speed – 110 -135 MPH
- Directional reference: East and West

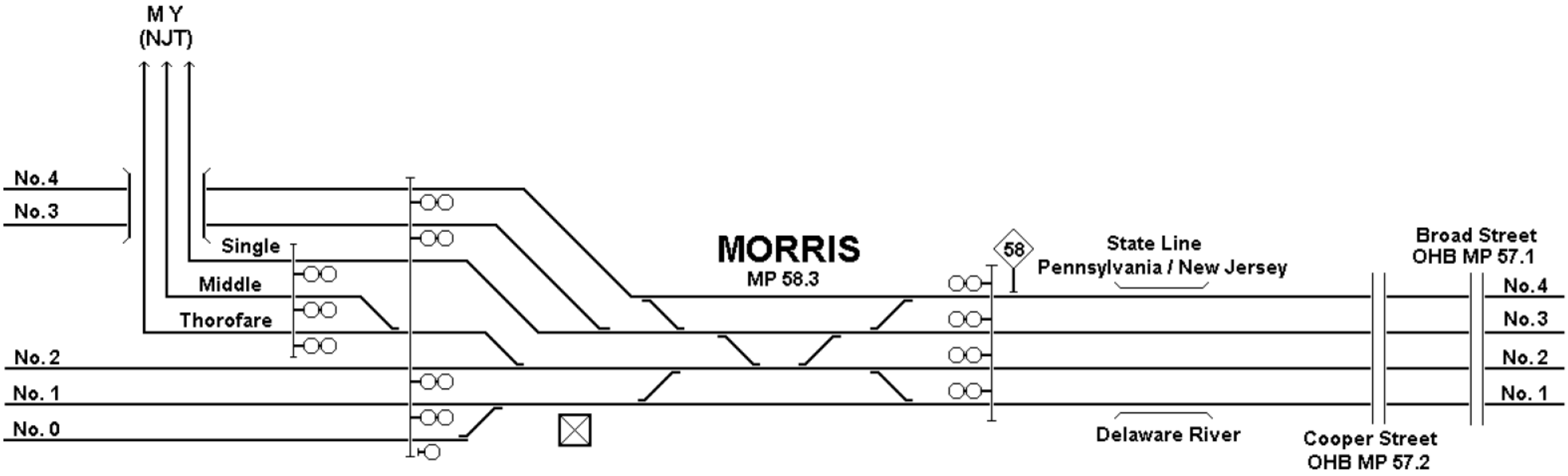
AMTRAK'S NORTHEAST CORRIDOR

Amtrak Track Charts – Hamilton to Broad Street (Pa.)

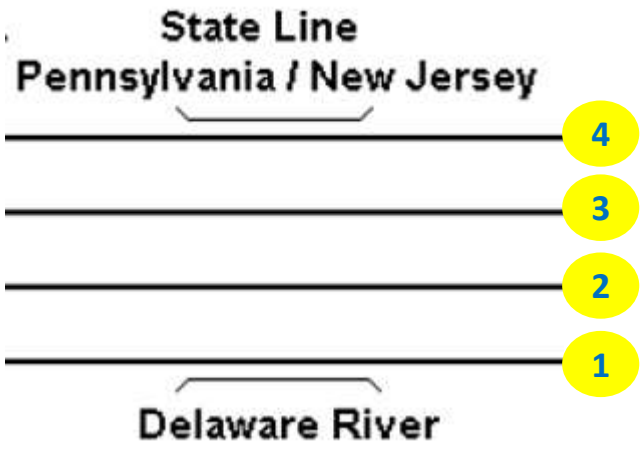


FAIR INTERLOCKING AND TRENTON STATION




M Y
(NJT)
No. 4
No. 3
Single
Middle
Thorofare
No. 2
No. 1
No. 0
MORRIS
MP 58.3
58
State Line
Pennsylvania / New Jersey
Broad Street
OHB MP 57.1
No. 4
No. 3
No. 2
No. 1
Delaware River
Cooper Street
OHB MP 57.2

Amtrak's Morrisville – Trenton Railroad Bridge



- Crosses the Delaware River
- Length: 1220 Feet
- Width: 54 Feet
- Stone Arch Bridge

Access to Amtrak's Right of Way

- Hamilton Train Station (Hamilton)
- Industrial Dr. (Hamilton)
- East State St. (Hamilton)
- Behind Certified Steel (Hamilton)
- North Cook Ave. (Trenton)
- Monmouth St. (Trenton)
- County Rt. 635 (Trenton)
- Chestnut Ave. (Trenton)
- Trenton Train Station (Trenton)

SAFETY AWARENESS

- Definition – “Right of Way” = Railroad property.
- Rails – Slippery, step over, not on top of them
- Bent rail – (collision/derailment) can spring back and injure an emergency responder.
- Rail weighs 140 pounds or more per yard.
- Ballast and Ties – challenging and hazardous to walk on
- Switches and Switch Heaters – Can be hazardous. (Gas or Electric 240/480V AC or 750V DC).
- Close Clearance Areas
- Catenary System, Impedance Bonds, wires and Cables
- Multiple Tracks
- Bridges

FROM THE GROUND UP - TRACK

- **Railroad tracks- Wood or concrete ties, steel rail, w/fasteners, clips, spikes, plates, bars, bolts. Rests on sub grade, and ballast (crushed stone)**
- **Steel Rail carries RETURN current, signal-traction power, not dangerous to life unless rail broken, bonds loose**
- **Welded rail for smooth/quiet ride**

RIGHT OF WAY HAZARDS

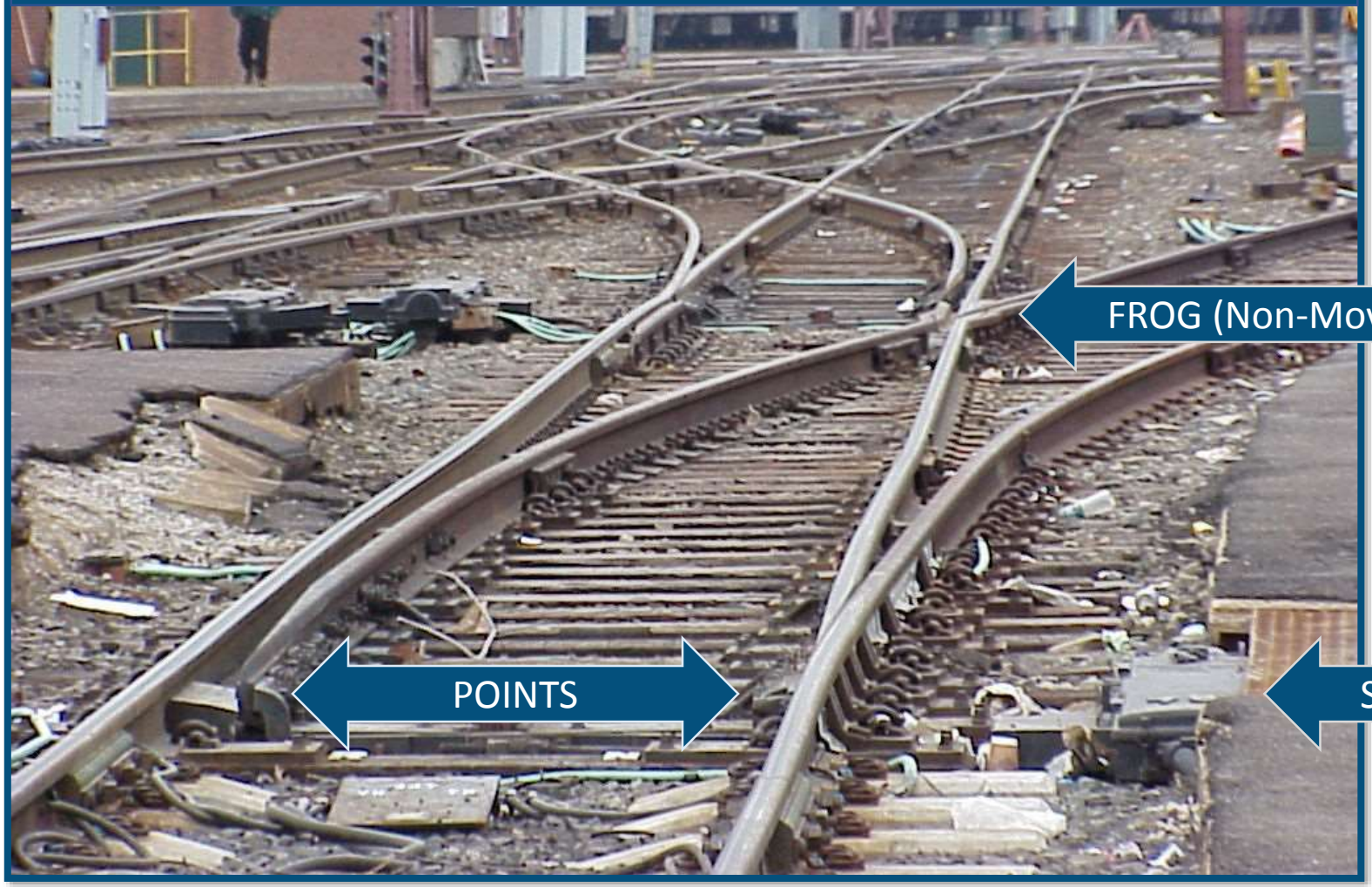
- Ballast - unstable footing
- Always step over the tracks
- Switches - main line tracks are controlled remotely and can open and close in 1-5 seconds

Use Caution Walking on the Tracks/Right of Way!

POWER SWITCH

- Remotely Controlled
- May move at any time
- Must stay clear of movable parts
- Can become trapped
- Cross tracks above points, clear of frog (rail intersection)
- Electric switch heaters in the “XTrack” area.

Power Switches



Switch heaters (240/480 Volts AC or 750 Volts DC) Keep switches from freezing

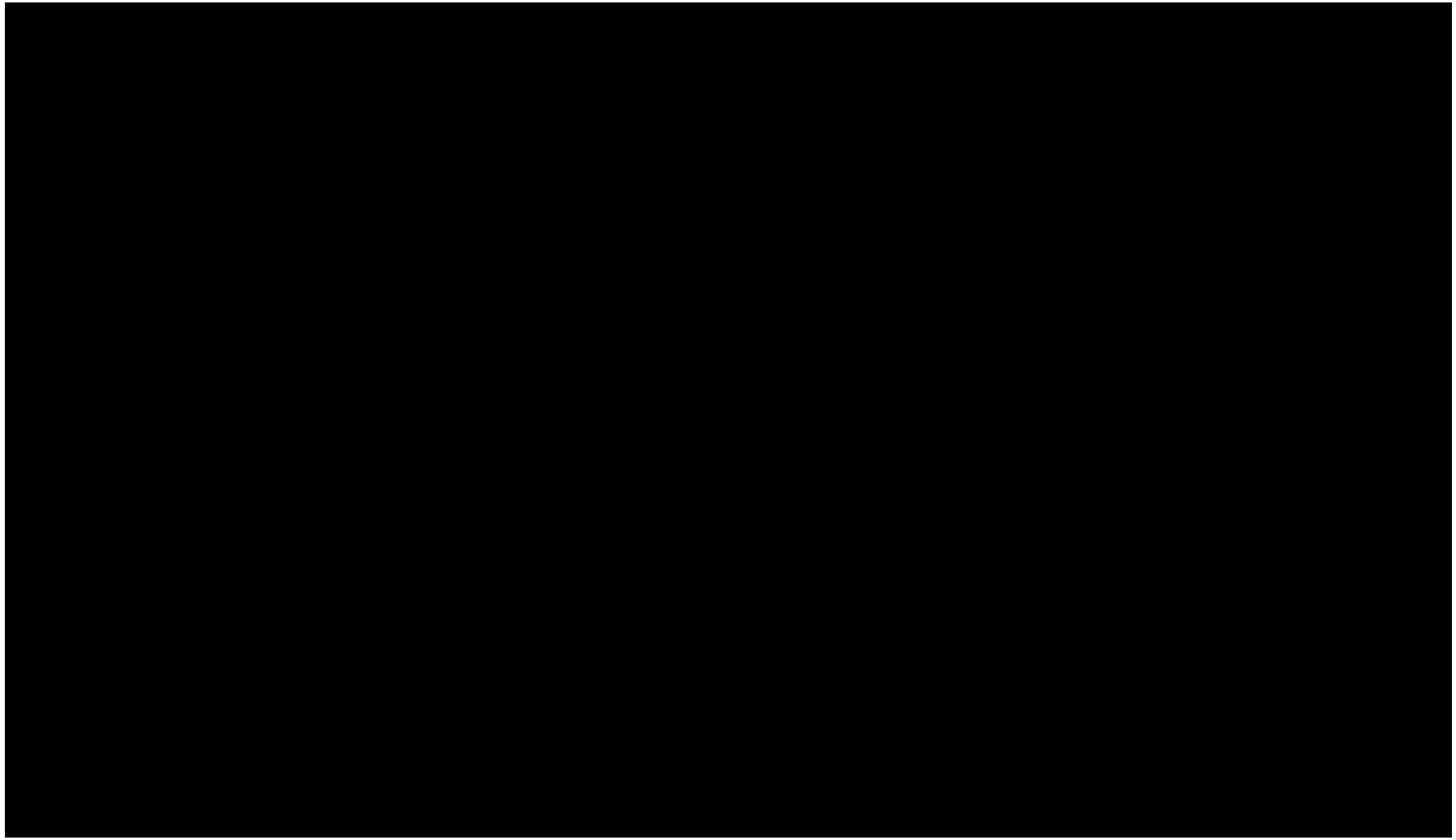
Safety Awareness - Power Switches

Expect the Movement of Trains

(TRAINS, TRACK EQUIPMENT, OR HIGH RAIL VEHICLES)

- Any Time
- On Any Track
- In Either Direction

Always look in both directions!



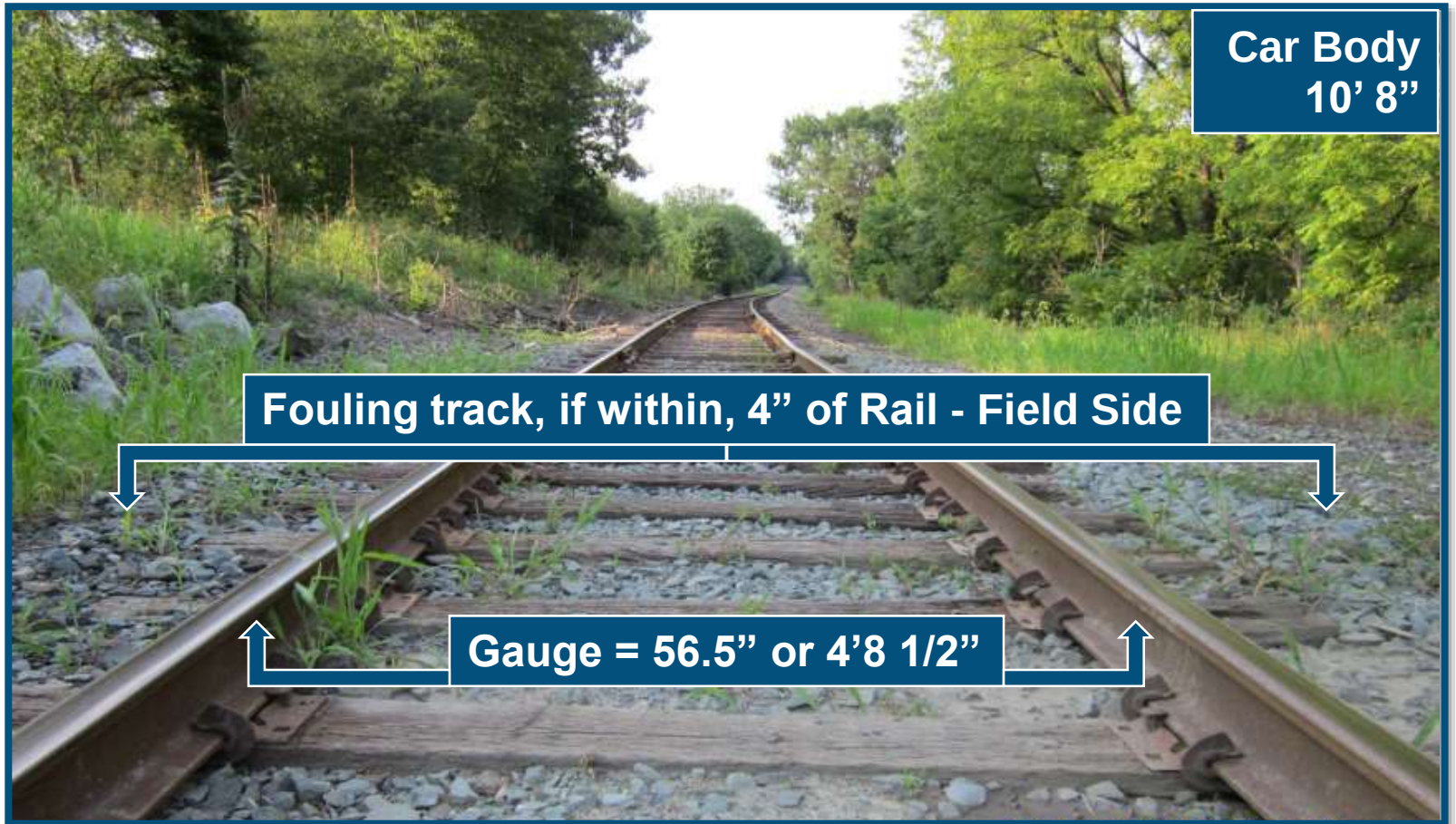
SAFETY AWARENESS: EMERGENCY RESPONDERS:

- Make Sure **ALL TRAIN MOVEMENT IS STOPPED** Prior to going on Tracks in Station, or within 15’ of the tracks on the right of way, **AND WAIT FOR THE CONFIRMATION!!!!!!!**

- DO NOT OPERATE WITHIN 15’ OF THE CATENARY UNTIL YOU HAVE **CONFIRMATION** THAT POWER IS OFF AND **GROUNDED**

FOULING A TRACK

A person or item within 4’ of the field side of the near running rail



Passing freight equipment could have, wire, belts, wood, steel, etc. hanging or bouncing off the side of the equipment

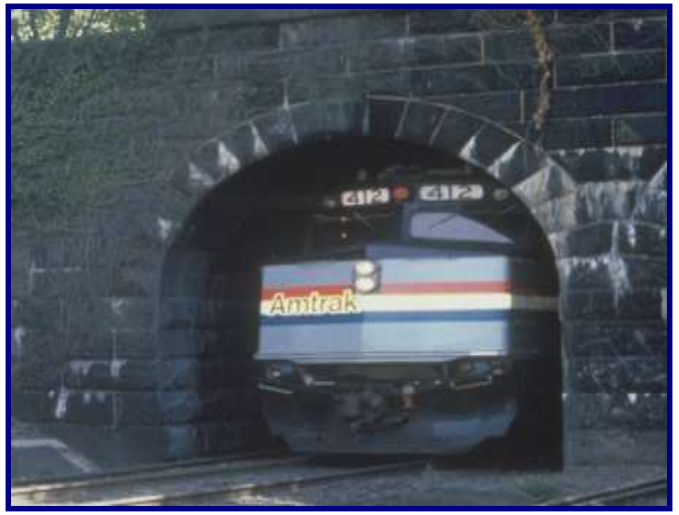
CURVES: USE CAUTION – Engineers cannot see around Curves

RIGHT OF WAY HAZARDS
TUNNELS & BRIDGES

Stay out of Tunnels & off bridges, if possible:

- Close Clearance
- Poor Ventilation
- Poor Radio Communication

- Over water
- Over / Under roads/highways
- Over tracks
- Open deck bridges
- Closed deck bridges



RIGHT OF WAY SAFETY

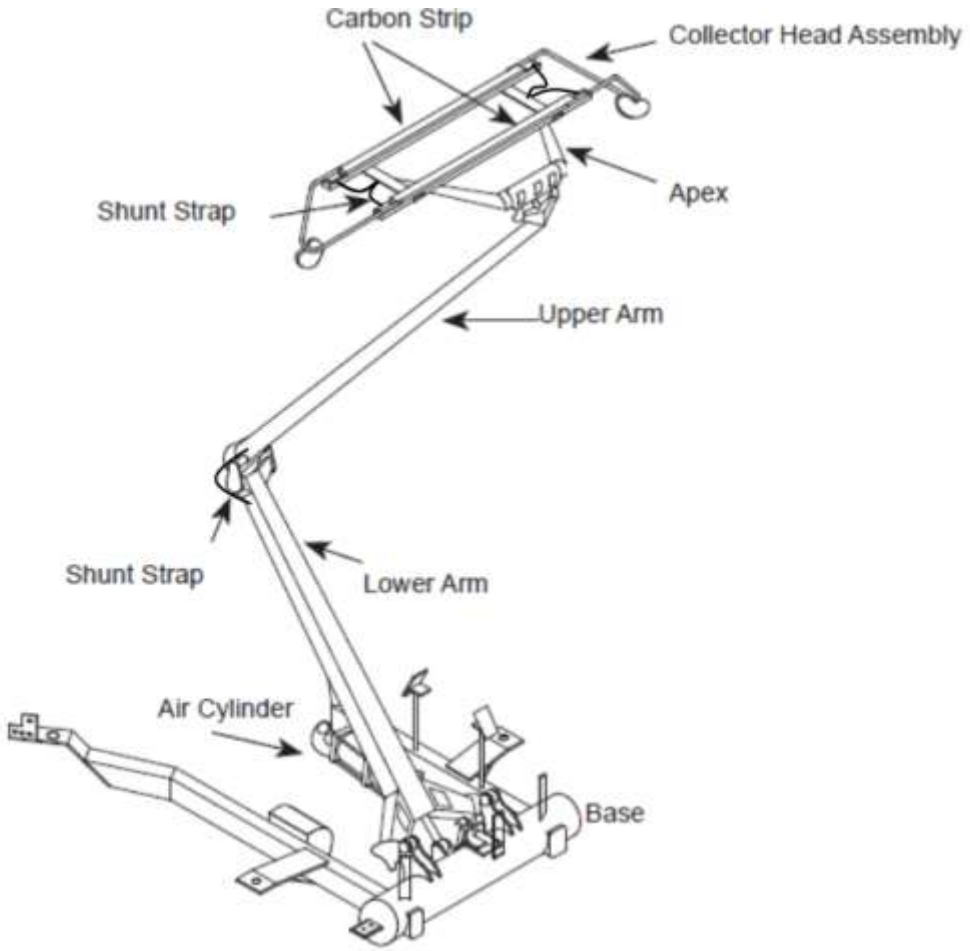
Natural Hazards

BENT RAIL

SAFETY AWARENESS

PANTOGRAPH – The device on top of electric locomotives that comes in contact with the catenary and carries high voltage power to the locomotives

Pantograph Assembly



SAFETY AWARENESS

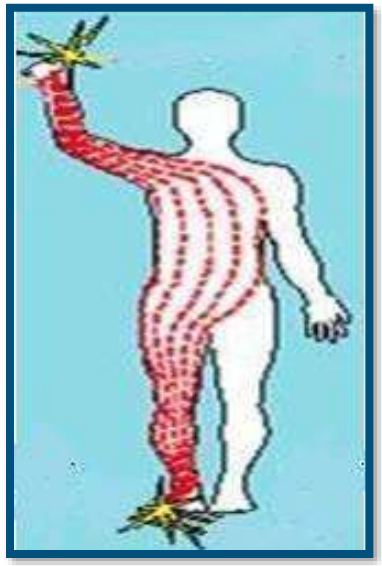
HEAD END POWER (HEP) – 480 volts of electricity that travels through cables on and in between cars and locomotives to provide power for lights, heating, A/C and other appliances

BRAKE LINE (Pipe) PRESSURE – 110/140 PSI between locomotive and cars (car to car) through hoses and piping

Is the Equipment Live?

IN THE EVENT OF A DERAILMENT, **AND THE WHEELS ARE NOT IN CONTACT WITH THE RAIL**, DO NOT TOUCH THE EQUIPMENT UNTIL DEEMED SAFE TO DO SO, BY QUALIFIED RAILROAD PERSONNEL. THE CURRENT WILL BE SEARCHING FOR A PATH TO GROUND. TOUCHING THE EQUIPMENT CAN ESTABLISH THAT PATH RESULTING IN SERIOUS INJURY OR DEATH.

SAFETY AWARENESS



The severity of injury from electrical shock depends on the amount of electrical current and the length of time the current passes through the body.

For example, 1/10 of an ampere (amp) of electricity going through the body for just 2 seconds is enough to cause death. The amount of internal current a person can withstand and still be able to control the muscles of the arm and hand can be less than 10 milliamperes (milliamps or mA). Currents above 10 mA (1/100 of an amp) can paralyze or "freeze" muscles. When this "freezing“ happens, a person is no longer able to release a grab iron of a coach or locomotive. In fact, the grab iron may be held even more tightly because the muscles are frozen, resulting in longer exposure to the shocking current. This can be very dangerous, because if you can’t let go of the grab iron the current continues through your body for a longer time, which can lead to respiratory paralysis (the muscles that control breathing cannot move). People have stopped breathing when shocked with currents from voltages as low as 49 volts. Usually, it takes about 30 mA of current to cause respiratory paralysis.

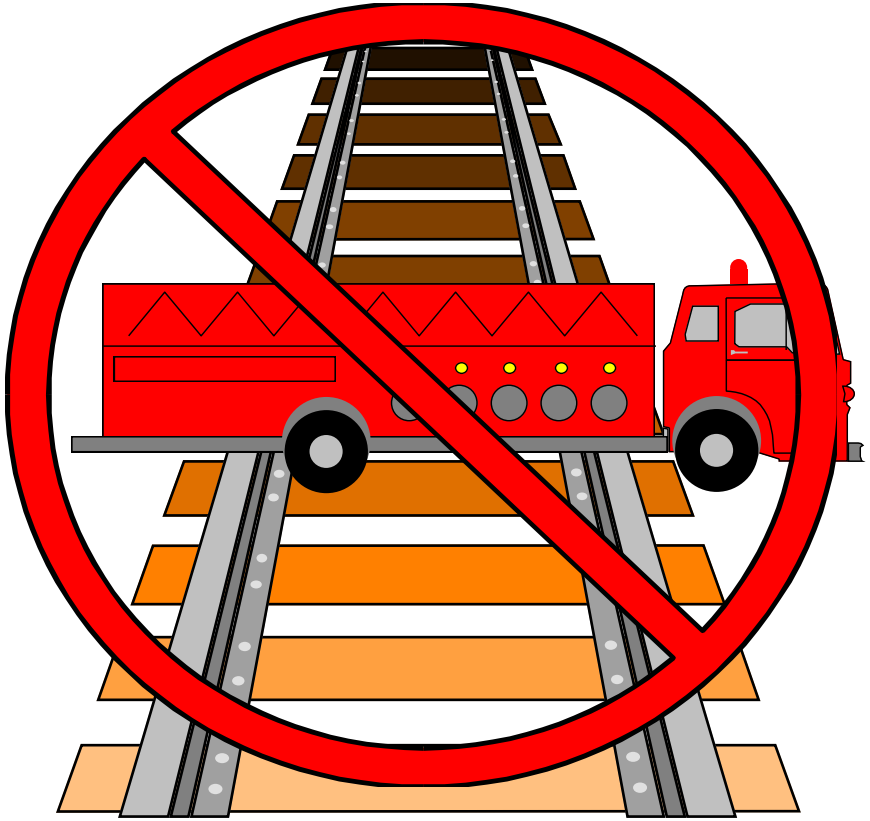
SAFETY AWARENESS

DO NOT GO BETWEEN OR UNDER ANY PIECE OF TRAIN EQUIPMENT.

- DERAILMENTS/COLLISIONS; MAKE
- SURE TRAIN EQUIPMENT IS SECURE AND STABLE BEFORE OPERATING IN, ON, OR AROUND IT. *TREAT THE INCIDENT AS IF IT WERE A STRUCTURAL COLLAPSE INCIDENT!*
- KEEP ALL PERSONNEL AND EQUIPMENT AT LEAST 15 FEET AWAY FROM ALL TRACKS UNTIL YOU HAVE CONFIRMATION THAT ALL TRAIN MOVEMENT HAS BEEN STOPPED.

NEVER! NEVER! NEVER!

Place any equipment, or apparatus on the rails to attempt to stop a train.



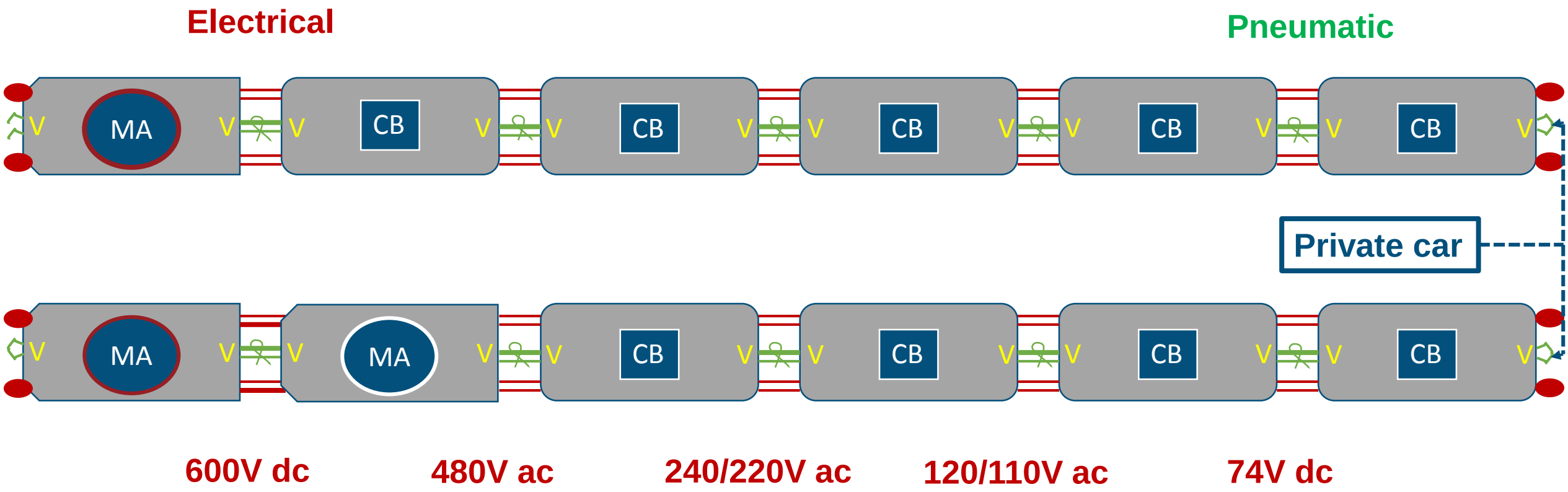
Stopping a Train in an Emergency

Have your dispatcher notify the appropriate rail road dispatcher.

Place a lighted flare between the rails, on ballast, out about 2 miles in both directions from the incident location.

Move a lighted flare or hand light back & forth horizontally, at knee to hip level, at the approaching train.

SAFETY AWARENESS



Head End Power

CB Main 480v ac circuit breaker each car

Brake Pipe

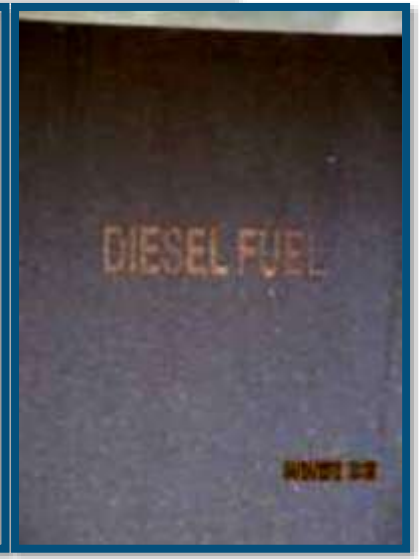
Main Reservoir 140 P.S.I.

V Valves

Passenger Train Electrical Systems

- 600V - Traction Motors
- 480V - Alternator
- 110/120V - Lighting, Doors & Wall Outlets
- 220/240V - Heating, Air Conditioning & Stoves
- 74V DC - Emergency power, NICAD battery system

Private Cars



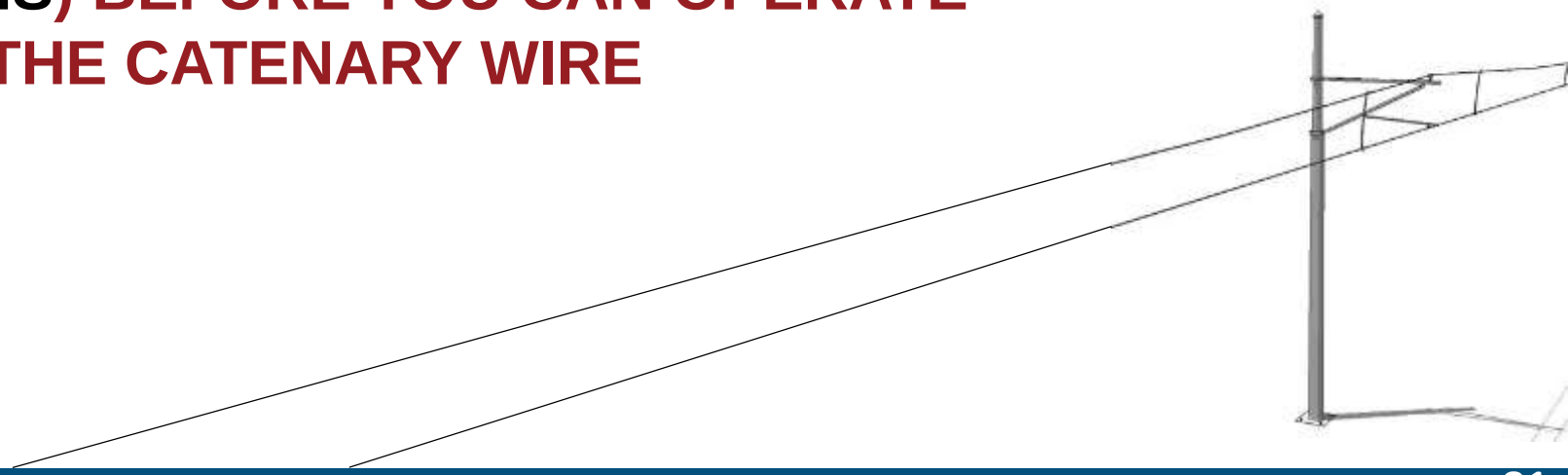
STAY OFF OF THE ROOFS OF ALL TRAIN EQUIPMENT, EVEN IF YOU HAVE RECEIVED CONFIRMATION THAT CATENARY POWER HAS BEEN REMOVED AND GROUNDED

Fiberglass panels on the roofs of some engines.

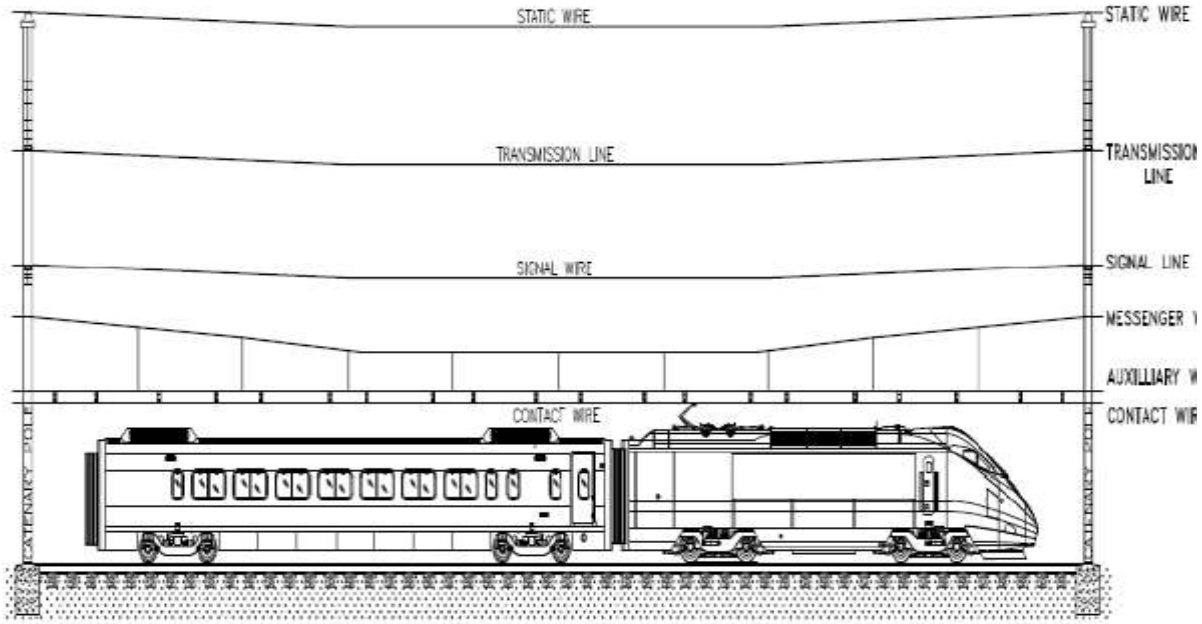
Catenary wires are under constant tension

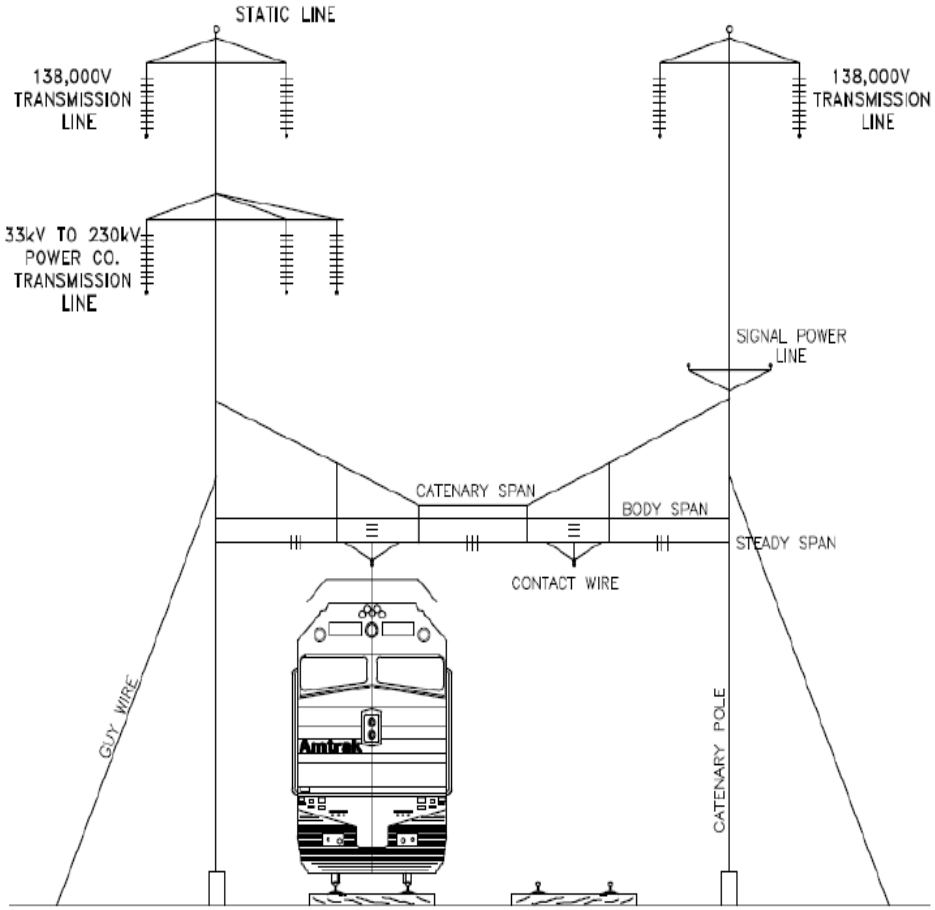
Catenary System

- 12,000 Volts AC Power
- An arc can travel 3.3 feet from the wire and can cause electric shock or electrocution (Serious Injury or Death).
- When power is removed, approximately 3000 volts or residual power remains in the catenary wire. **IT MUST BE GROUNDED BY A QUALIFIED AMTRAK "CLASS A" ELECTRICIAN (OR REMOTE GROUND SWITCHES FOR TUNNEL OPERATIONS) BEFORE YOU CAN OPERATE WITHIN 15 FEET OF THE CATENARY WIRE**



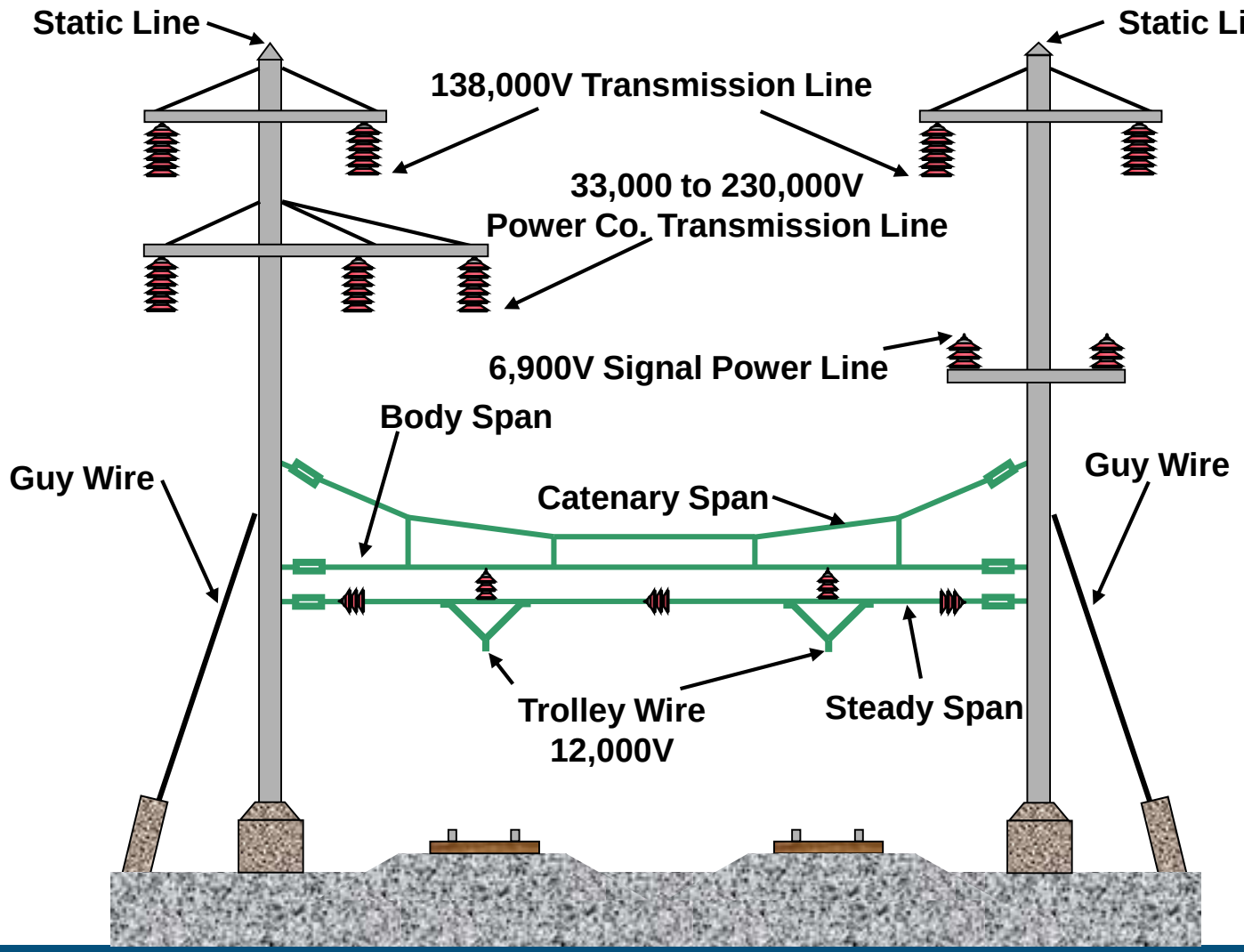
Catenary System






PS-TOC Platform 2 Track 4B
12/3/2006
3:26:49 AM
PLAY

Northeast Corridor Catenary System



Look for the Pole Number

SUBSTATION

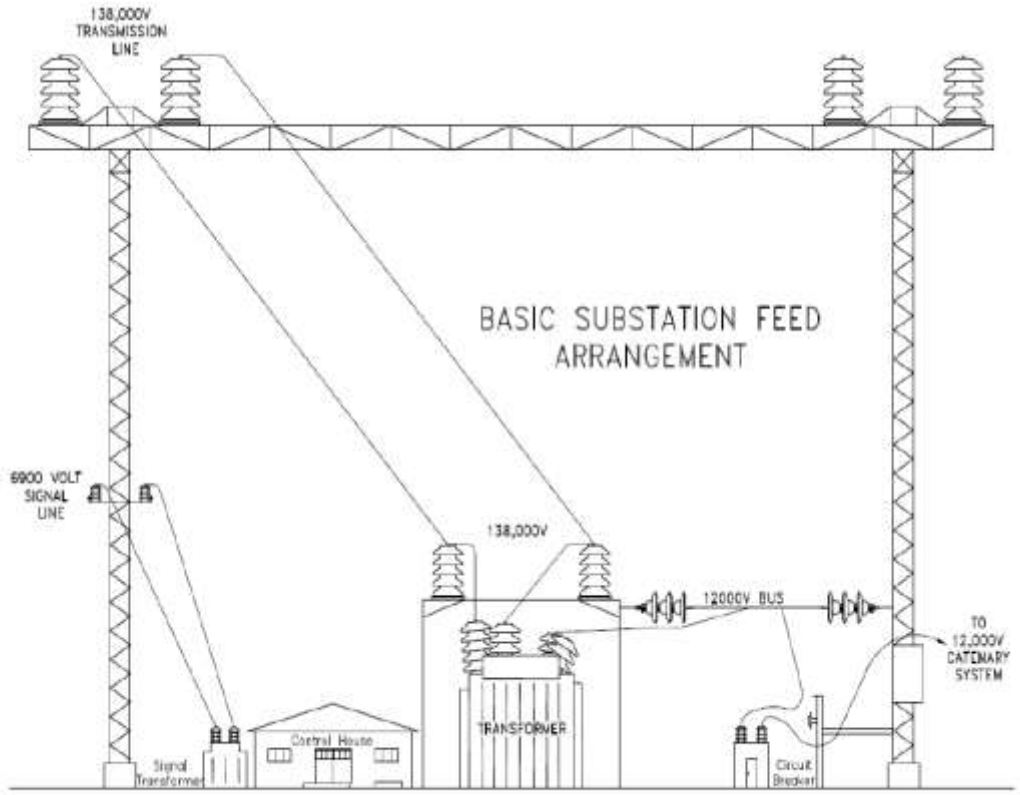


Figure 2 - BASIC SUBSTATION FEED ARRANGEMENT

How far will electricity jump?

OPERATING CURRENT
= 12,000 VOLTS AC.

CATENARY SYSTEM

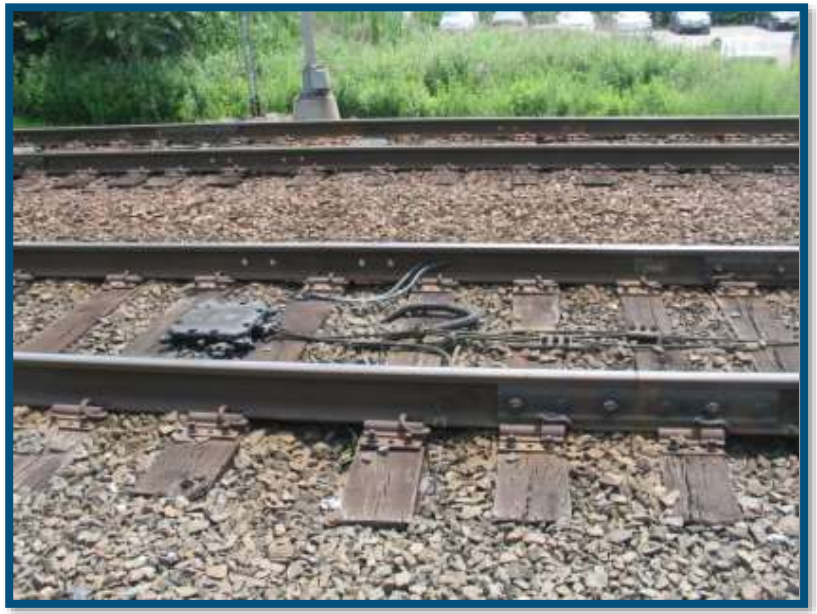
SUPPLY or TRANSMISSION LINES
= 138,000 to 230,000 VOLTS AC.

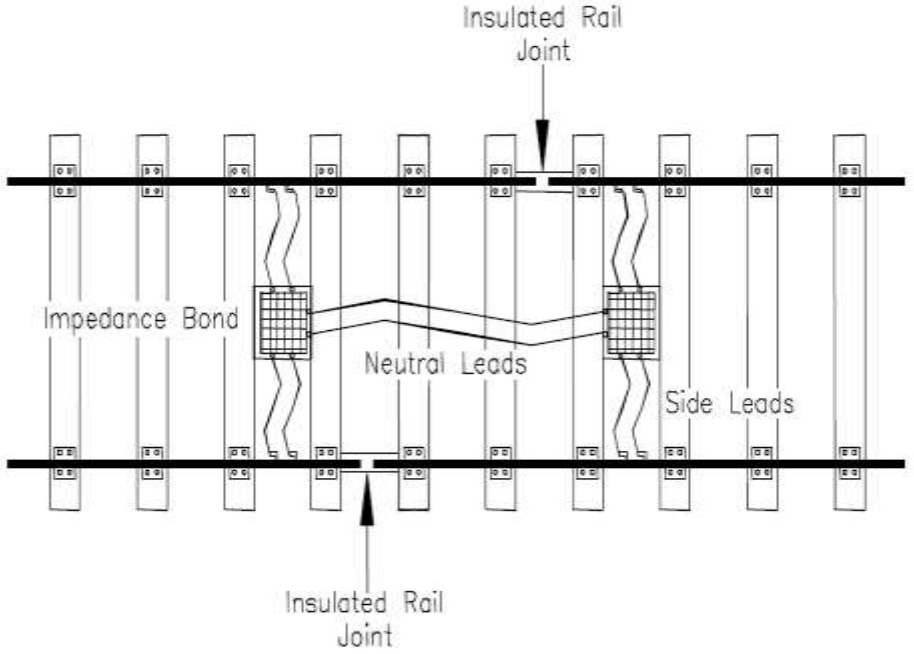
SUB STATION

AC TRANSMISSION IS ALWAYS SEEKING GROUND!

Impedance Bond

- A device which separates signal track circuits from traction return circuits by providing a path for traction return current around insulated block joints.
- Impedance bonds are located in the station and the tunnels.
- **DO NOT STEP ON IMPEDANCE BONDS OR ANY WIRES CONNECTED TO THEM!**





STANDARD IMPEDANCE BOND ARRANGEMENT

Grounding the Catenary System

Ground Stick

Ground stick cable attached to rail

Ground stick hung on catenary (trolley) wire, residual power runs down cable into rail.

Catenary wire checked with tick tracer

Grounding the Catenary System on the Northeast Corridor

Power Off Confirmation Procedures

When necessary:

- Prior to operating on or within 15’ of the tracks, “Request ALL TRAIN MOVEMENT STOPPED”
- Prior to operating within 15’ of the catenary wire, “Request AC Catenary Power Off”
- **IMPORTANT –** Detail the tracks (in priority order, and the limits (example; Point A to Point B) of your request and **WAIT FOR CONFIRMATION!**
- **These notifications go through the Amtrak 40 Office, 212-630-7777**

Emergency Response Operations

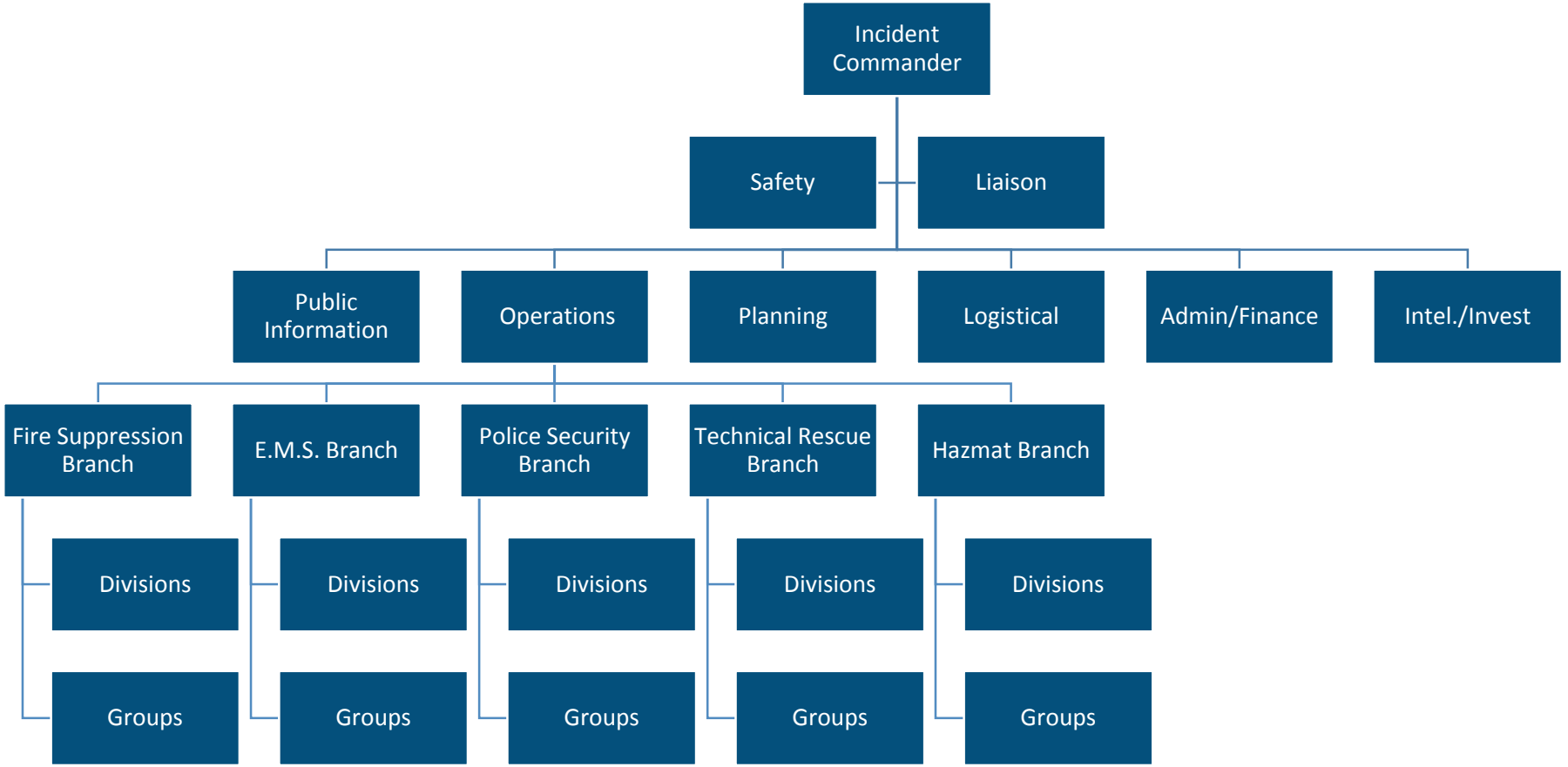
NIMS/ICS

RAILROAD INCIDENTS: RESPONSE AGENCIES

- FIRE DEPARTMENTS
- EMS
- LOCAL POLICE
- STATE POLICE
- AMTRAK
- AMTRAK POLICE
- NJT
- NJT POLICE
- LOCAL AND STATE EMERGENCY MANAGEMENT
- SEPTA
- PROSECTORS OFFICE
- FBI
- ENVIORNMENTAL AGENCIES
- ATF
- NTSB
- FRA
- TSA
- MEDIA
- POLITICIANS
- AND MORE

USE THE INCIDENT COMMAND SYSTEM !!!!!

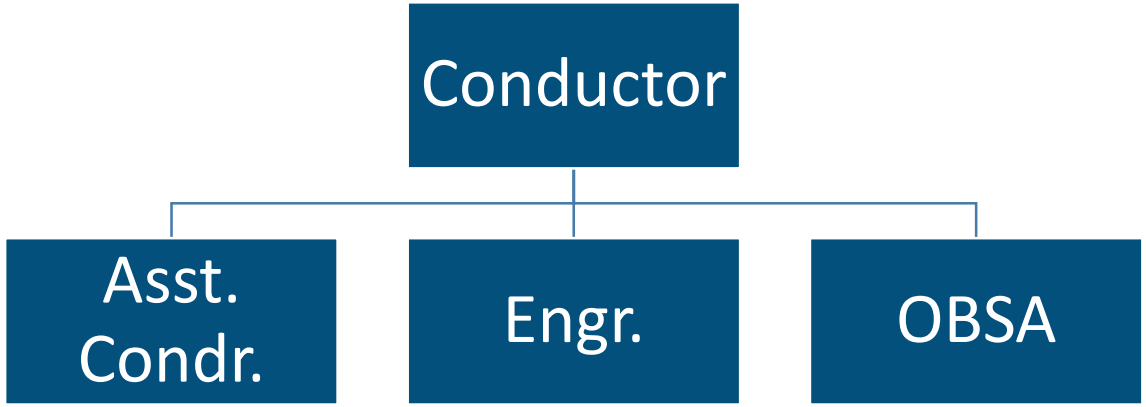
RR Incidents: National Incident Management System Use (NIMS) Incident Command System (ICS)



Emergency Response Operations

Confer with the Train Crew:

- **CONDUCTOR** – In general charge of the train
- **ASSISTANT CONDUCTOR**
- **ENGINEER** – In command of the locomotive and operates the train
- **ON BOARD SERVICE ATTENDENTS** – serve food, sleeping car attendants, ETC.



Railroad Supervision

- **Trainmaster / Road Foreman**

✓ **Responsible for supervising train crew and train operations in a specific geographic area**

✓ **Usually will take some time to arrive on scene**

✓ **Will be your official contact with the railroad**

Terrorism – Criminal Acts


EXCLUSIVA
Explosiones en Atocha 11-M
Telecinco
Programa Día a Día

Rail Road Equipment that can be mistaken for suspicious devices - SHUNTS

Emergency Response Operations
Application of Hand Brakes

Amfleet Equipment

Amtrak Viewliner Sleepers/NJT

Make Sure; Hand Brakes are Applied (ALL CARS)
and chock the wheels


Lac-Mégantic
July 2013
Transportation Safety Board of Canada
Bureau de la sécurité des transports du Canada

Emergency Response Operations

IF A TRAIN IS INVOLVED AND IT IS NOT AT A PLATFORM, AND THE TRAIN IS STABLE, AND THERE IS NO IMMEDIATE DANGER TO THE PASSENGERS, CREW OR EMERGENCY RESPONDERS:

1. Move the passengers out of the car(s) involved AND
2. Keep the passengers on the train (in a controlled\environment), until the train is brought to a platform or a rescue train is put in place.

Personal Accountability

- Know what companies/units are on the scene.
- Know where your companies/units are operating at all times.
- Have someone track the companies/units operating at your incident, on some type of command board.

Stretching Hose Lines Across the Rail Road Tracks

- Notify the host railroad and request that all train movement be stopped from _____to_____ before stretching the lines across the tracks.

- Extended operations; ask the railroad to assist you with trenching to place the lines under the tracks.

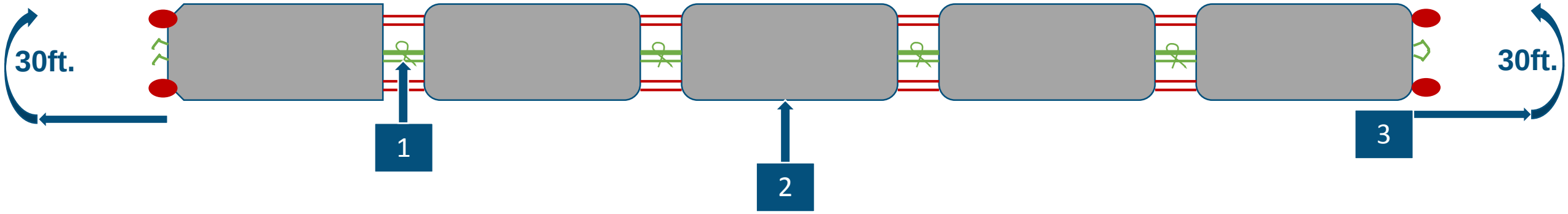
Emergency Response Operations – Incident Safety

RailRoad = Time = $$ Money $$

VS.

Public Safety = Time = Mitigate Emergency

Emergency Response Operations – Incident Safety

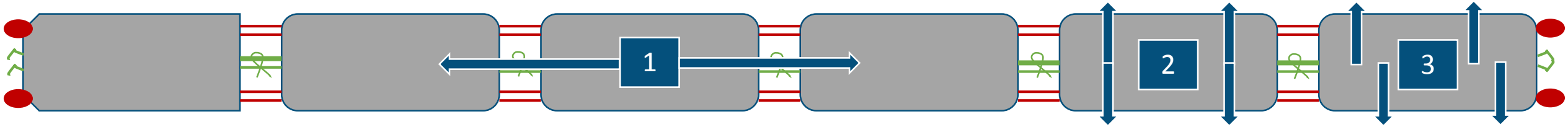


NEVER

1. Climb Between Cars
2. Crawl Underneath Cars
3. Cross Around the end of a train at a distance less than 30ft.

Unless you know absolutely/positively that the train is secure & will not move

Emergency Response Operations - Evacuation Options



1 To an adjacent car

2 To outside through doors

3 Through Lexan emergency exit windows

Difficult Access Areas

Bridges — Open Deck; Closed Deck; Exit through train via end car

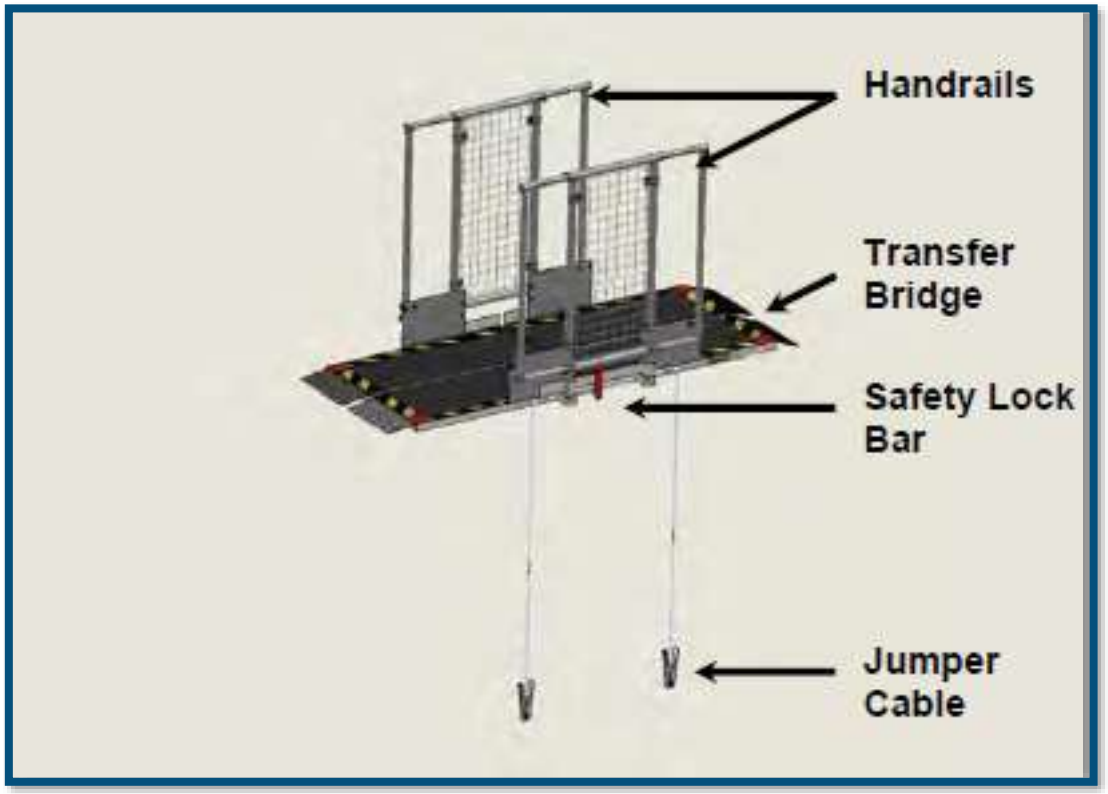
Tunnels — Length; Width; Close Clearances; Smoke & Fumes

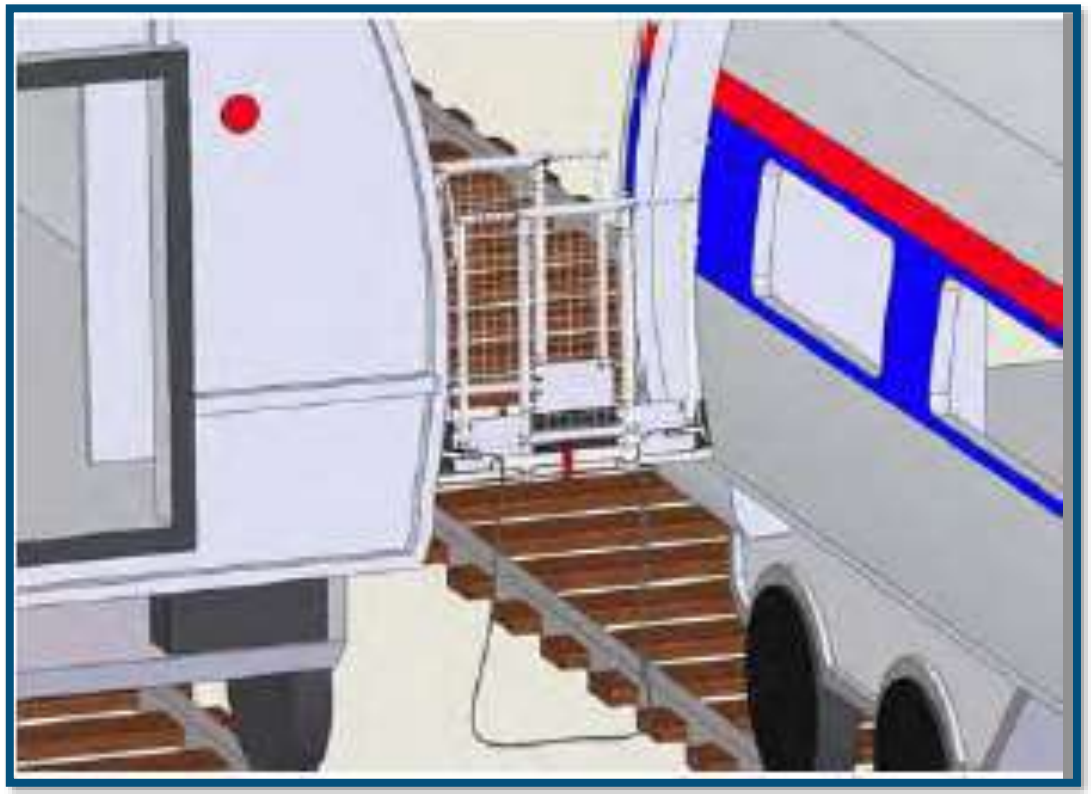
Evacuation from the train is always a LAST resort

Persons with Special Needs - Mobility Impaired/Disabled Passengers

G2 Transfer Bridge

If the train is equipped with a G2 Transfer Bridge, the train crew can use it to transfer/evacuate passengers from one train to another.





Amtrak train crews are trained in the operation of the G2 Transfer Bridge

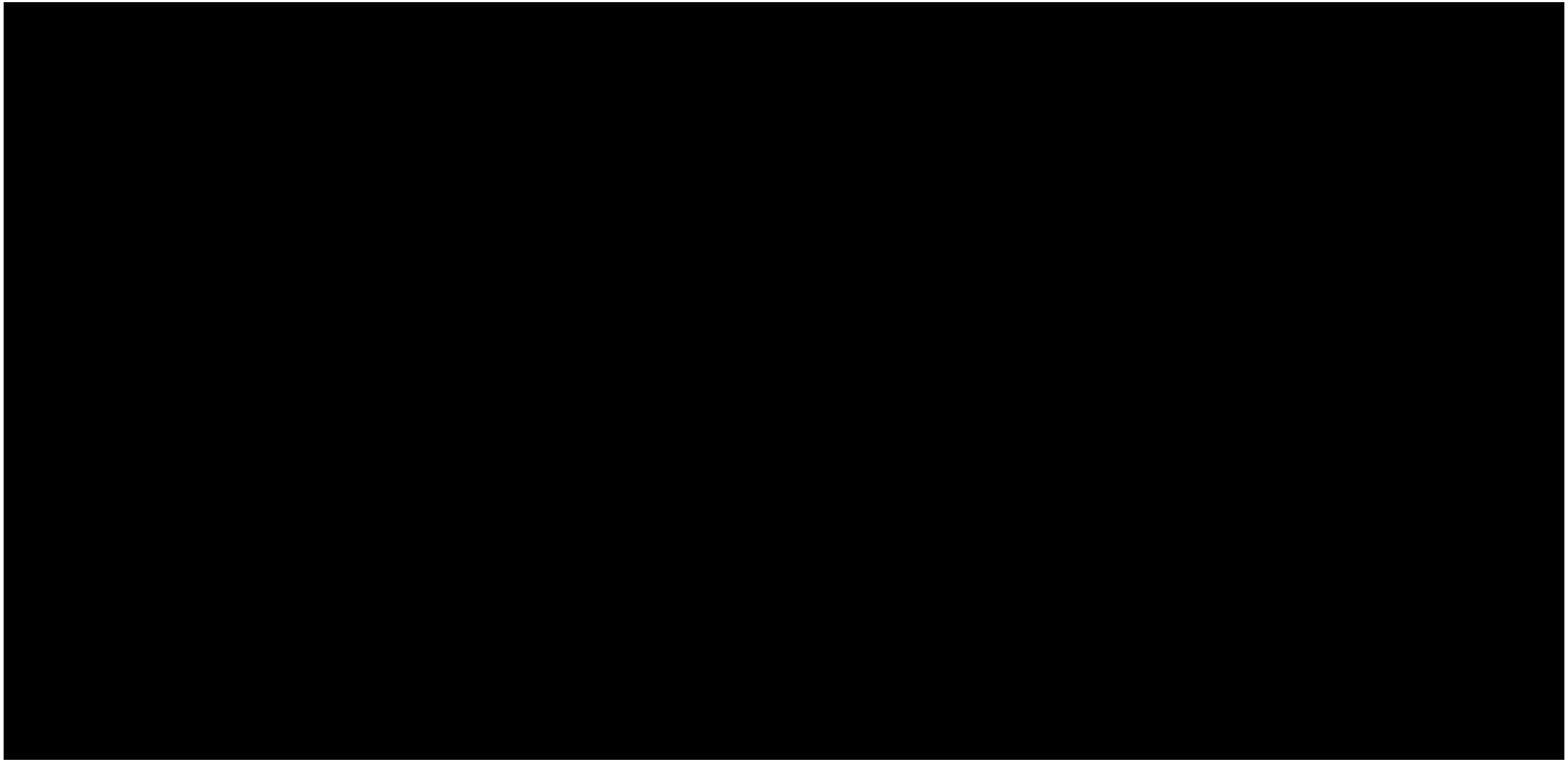
Stryker Evacuation Chair

Searches


Luggage Racks
Seating Area
Floor Area/Under Seats


Bathrooms
Luggage Racks

Searches



Passenger Train Fires

- Passenger car fires are very hot, with little to no ventilation.
- Use the reach of the hose stream.
- Stay off the roof of the equipment.
- Close and secure end doors between cars to isolate the fire.

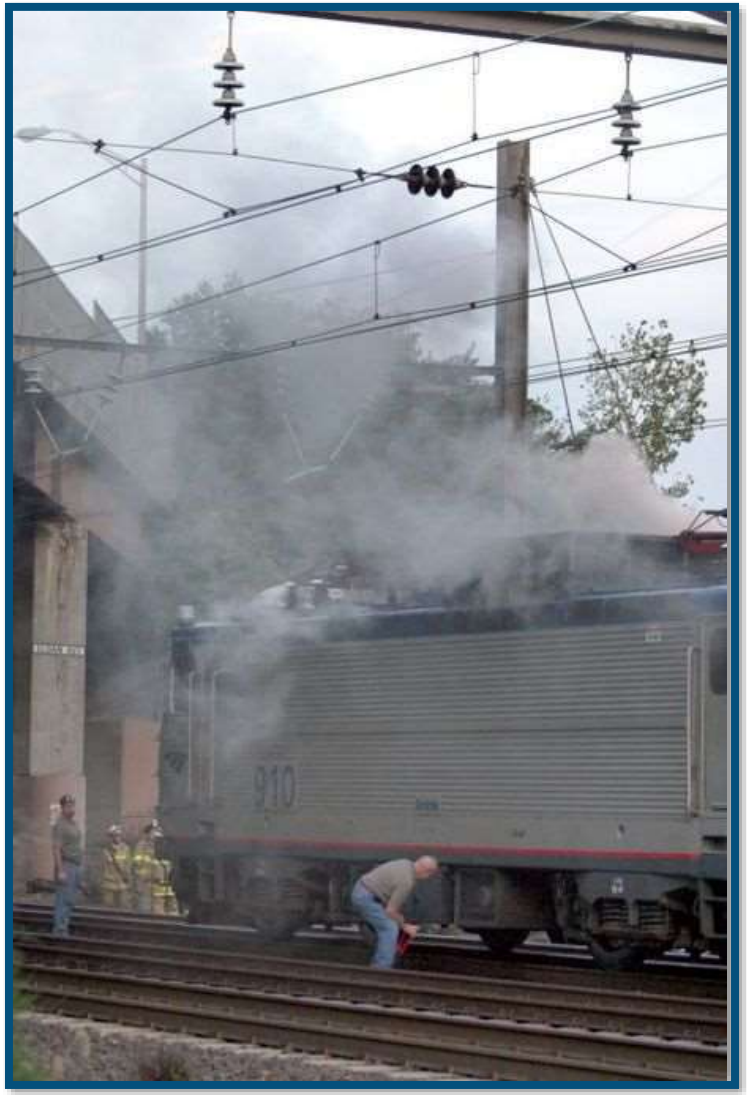
What happens when a passenger train car burns?

WHENEVER POSSIBLE, KEEP HANDLINES AND EQUIPMENT ON THE FIELD SIDE OF THE TRACKS UNTIL TRAIN TRAFFIC IS CONFIRMED STOPPED AND ALL OF YOUR PERSONEL ARE PROTECTED

Diesel Engine Fire

IS THERE A CHANCE THE WIRES WILL FAIL? WHAT WILL HAPPEN TO THE TRAIN?

Electric Motor Fire



Amtrak Catenary Car Fire – Hamilton, New Jersey


R


A 13001
R

Pre-Plan the Rail Road response in your area(s)

- Topography
- Access points
- How big is the incident scene?
- Divide the incident into Divisions (I.C.S. – Span of Control)

Emergency Information

- Record the name of the railroad contact person
- Maintain communications and update the rail road of the Incident status
- If the rail road representative must leave the Command Post for any reason, send a firefighter, equipped with a radio, with him or her, or get their cell phone number.

Crowd Control

- If Train Crew is unavailable, crowd control is a must for everyone's safety
- If not necessary to evacuate, all passengers must be kept on board, seated, informed
- If you must leave a door (s) open, post a guard (s) to keep the passengers on the train and spectators off the train.
- If train crew unavailable, make announcements, control doors, chains, bars to control passengers
- Keeping passengers informed and up-to-date keeps them calm

Determining the location of the incident

- Mile Post Markers
- Catenary Pole #
- Signal/Communications Hut ID markings
- Signal number
- Bridge Marker

Reminder for Police Personal

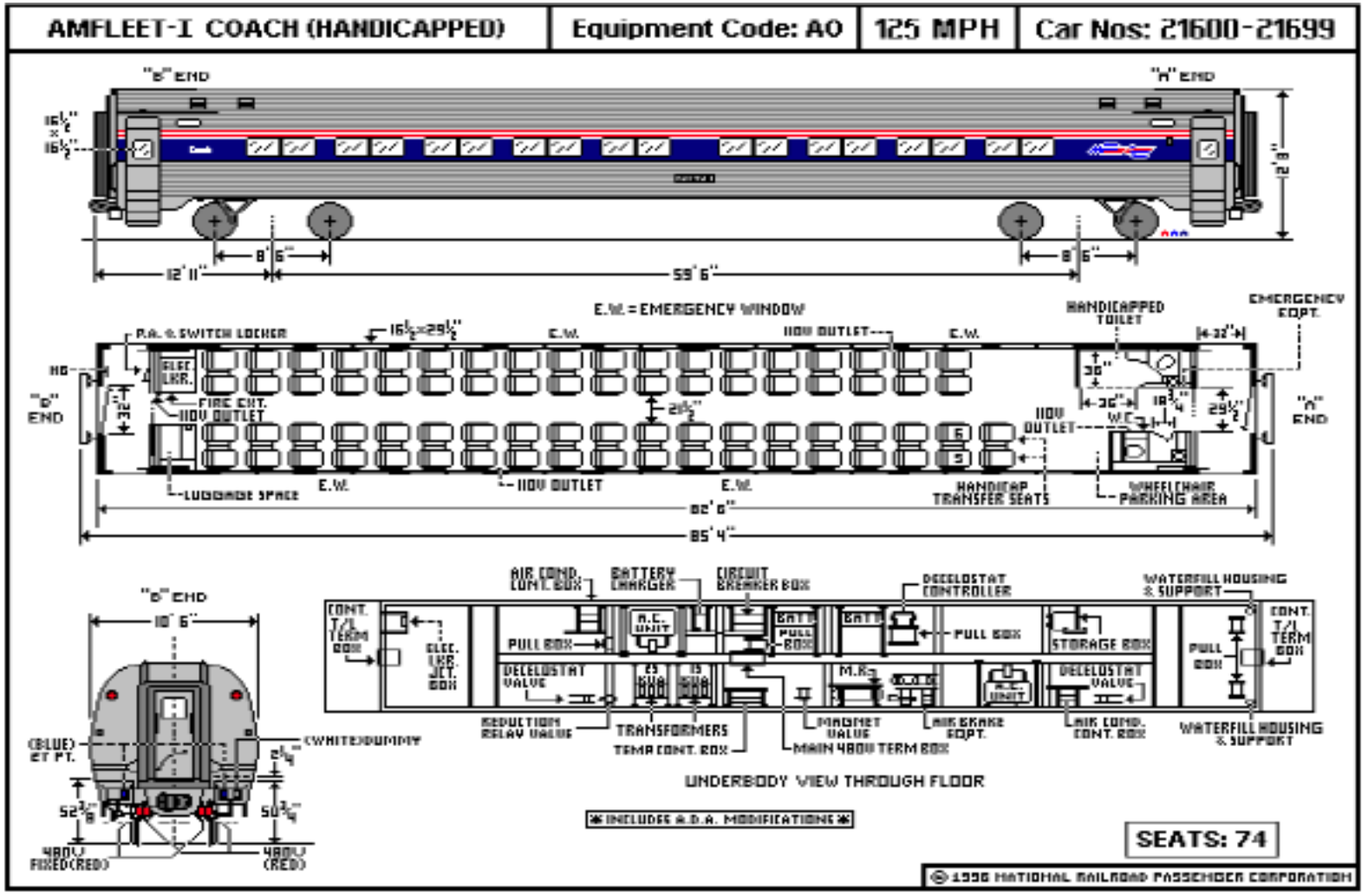
- Trains are not “vehicles” as in motor vehicle law.
- Only the Engineer can move the train. The only time an engineer can leave his/her train is when in danger or relieved of duty by a qualified railroad employee.
- Employees will cooperate as much as possible, and will be available for interview at the first opportunity when passengers and equipment are safe.

On-board Emergency Equipment

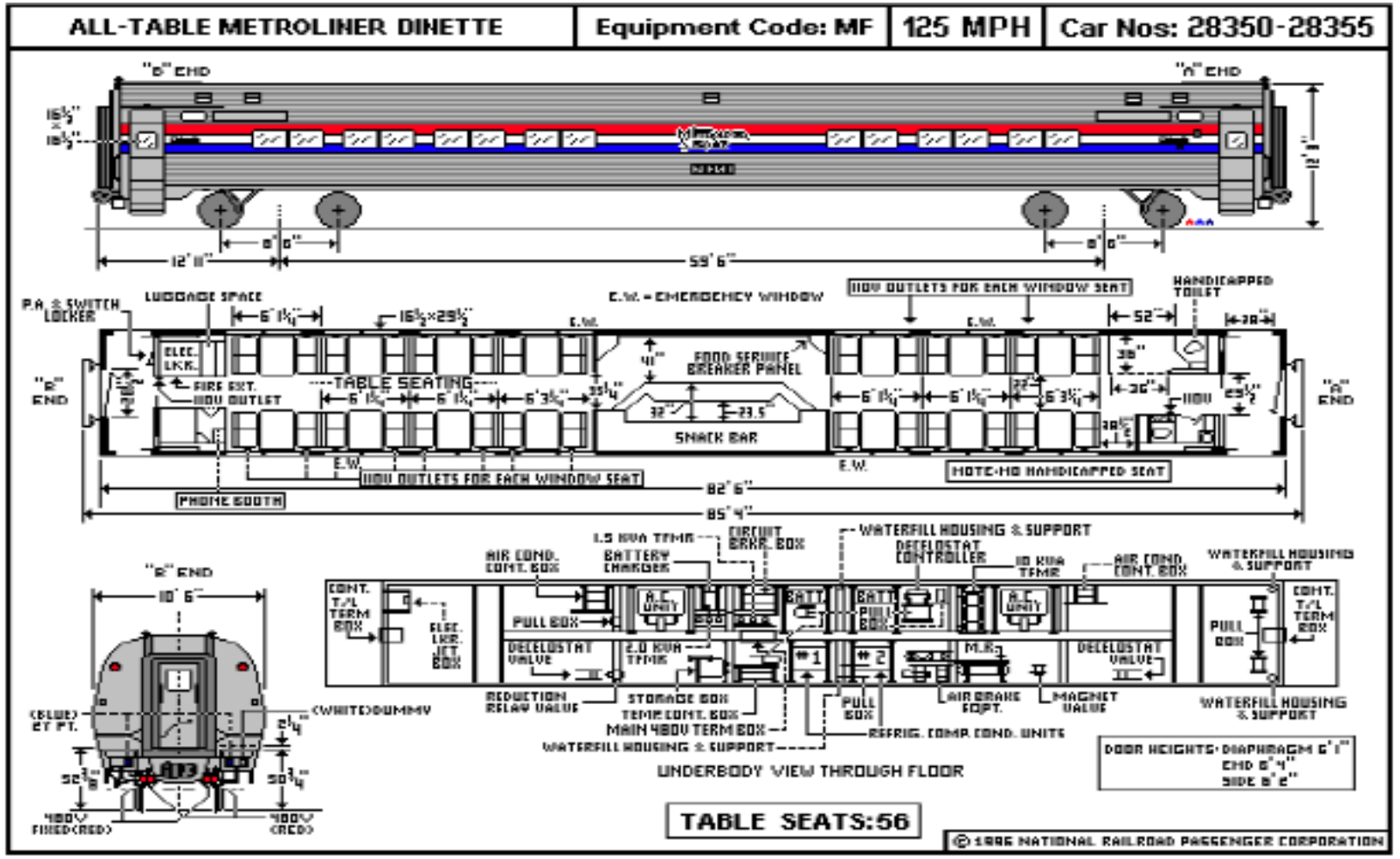
- 10lb dry chemical A-B-C fire extinguisher
- Sledge hammer
- First Aid kit
- Light Sticks
- Pry Bar

Glow Sticks

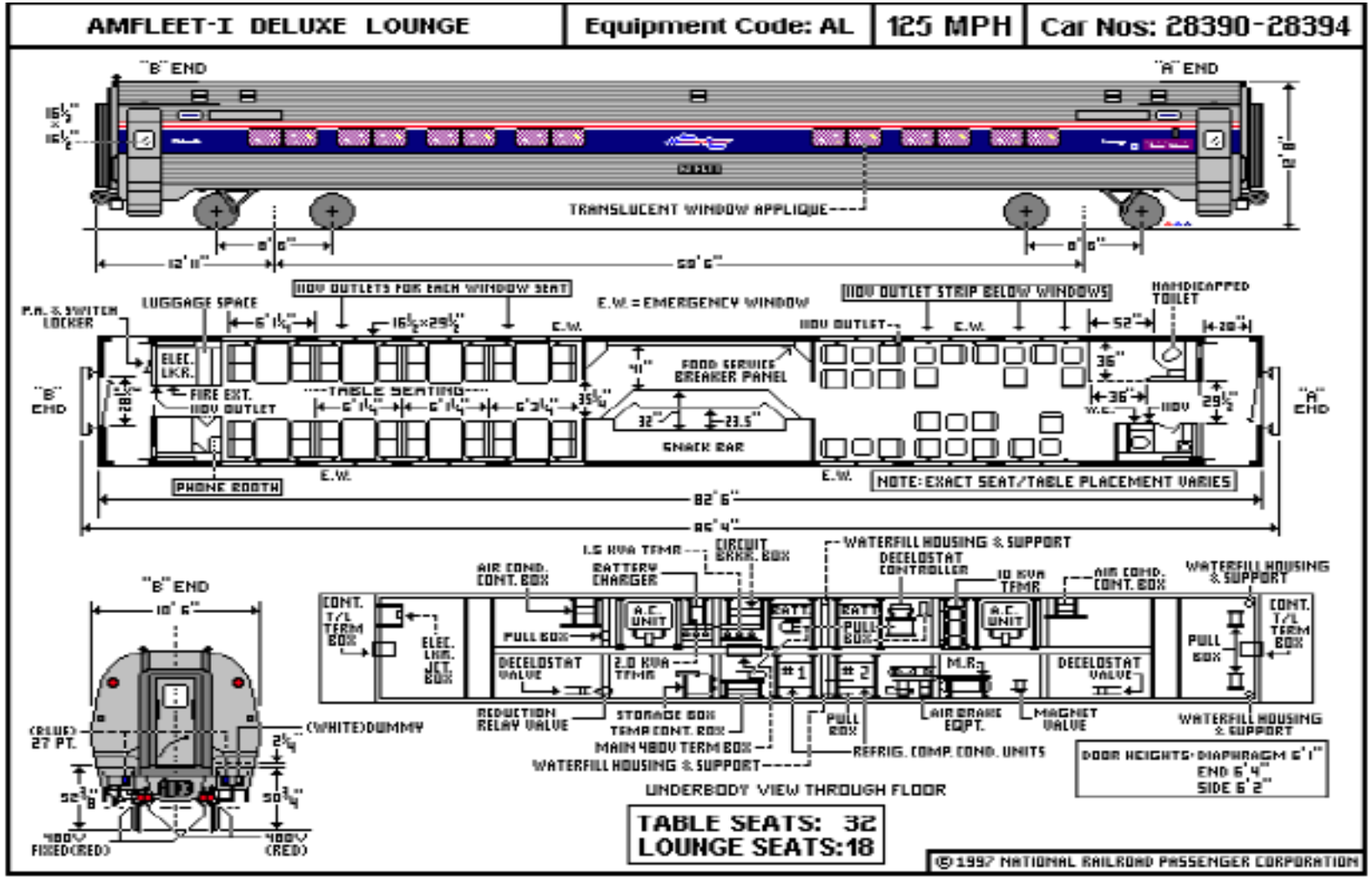
AMFLEET COACH



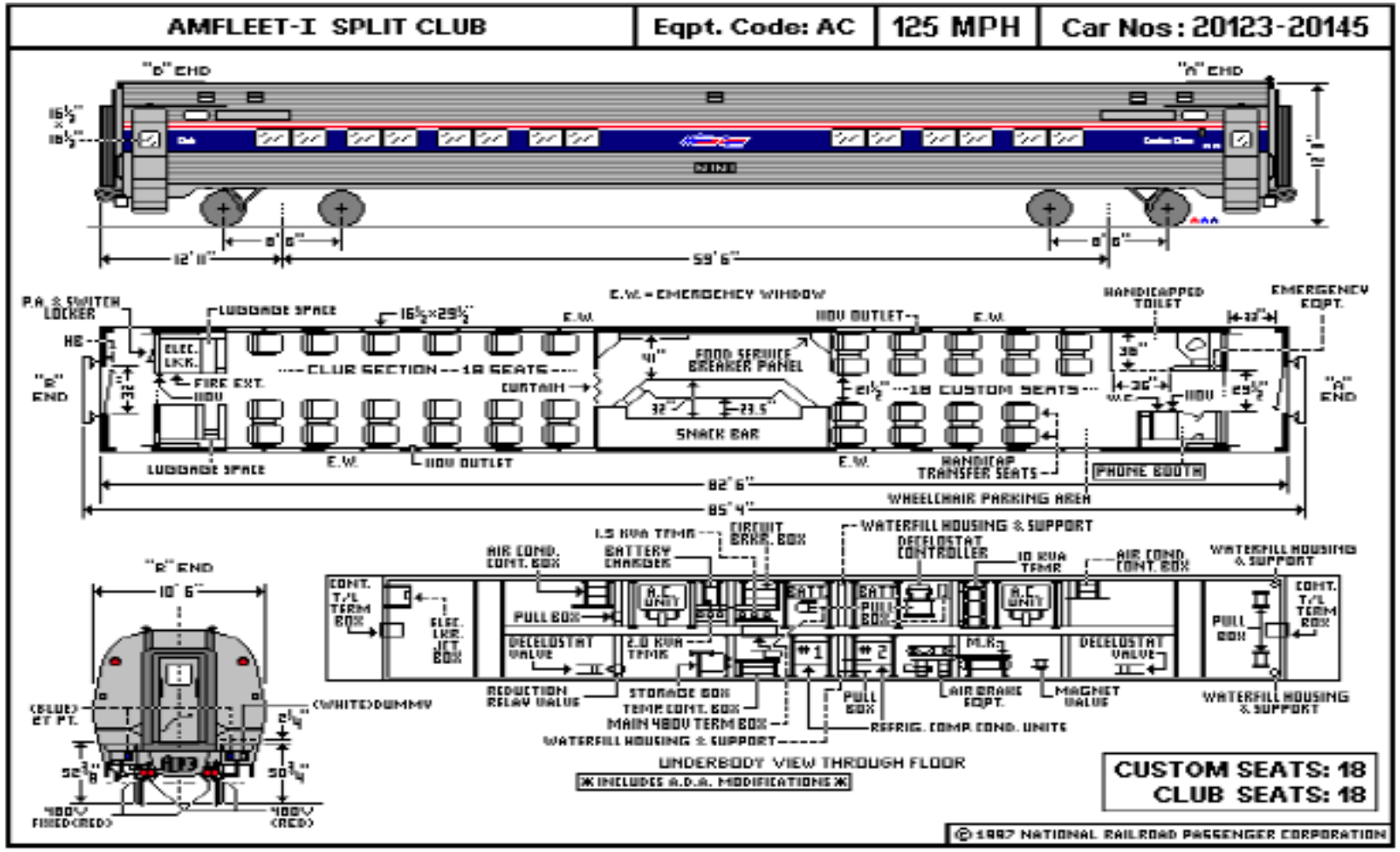
METROLINER DINETTE



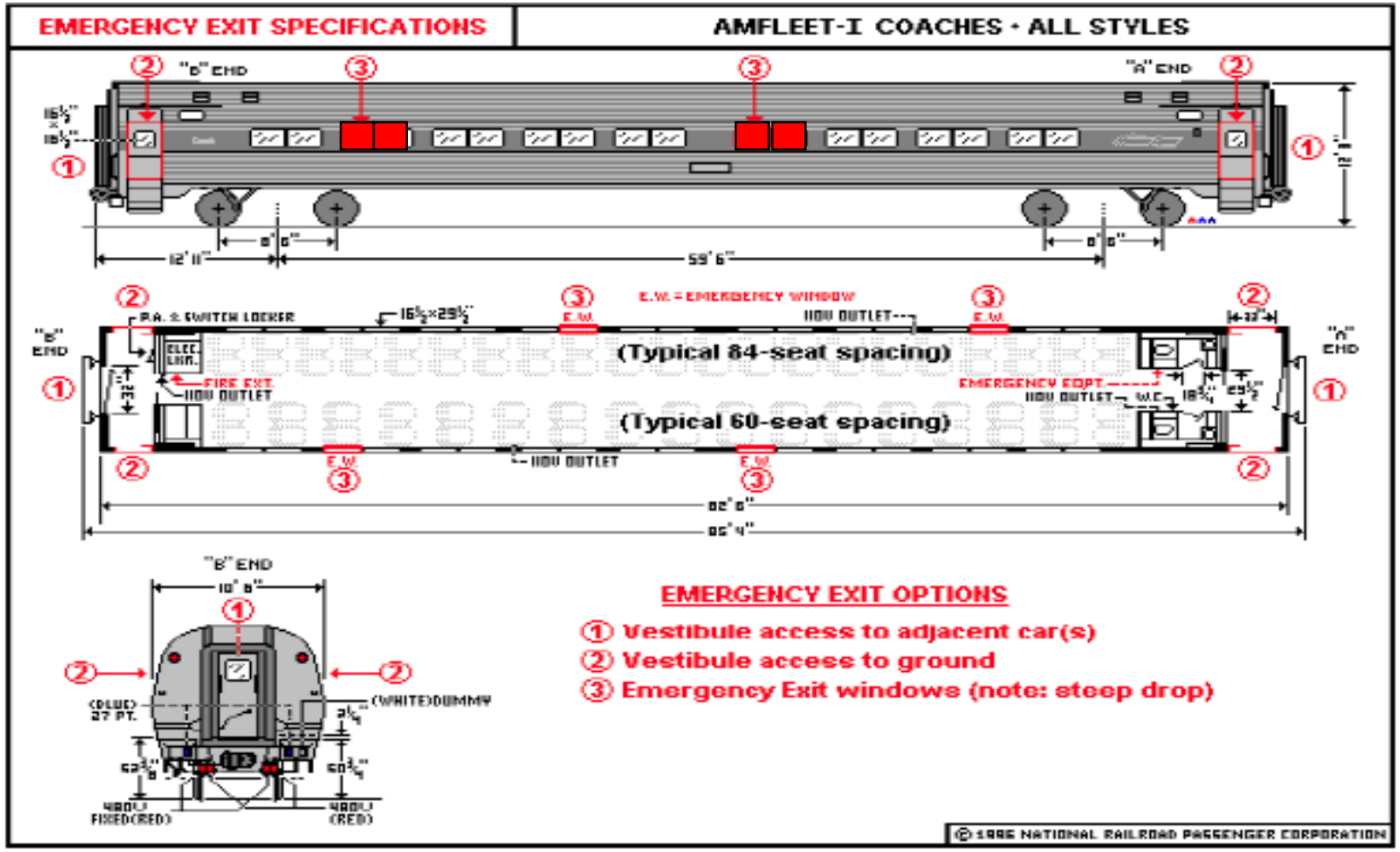
AMFLEET DELUXE LOUNGE



AMFLEET SPLIT CLUB



Emergency Exits – AMFLEET Series



Leaves and debris sometimes get caught up under the truck and ignite.

DO NOT GO UNDER THE TRAIN TO EXTINGUISH A FIRE.

Use the reach of the stream of an ABC multi-purpose dry chemical extinguisher to extinguish a fire in this area.

- Catenary Wires
- Lexan Windows Melted
- Main Track & Switches
- Fire extending to exposed car

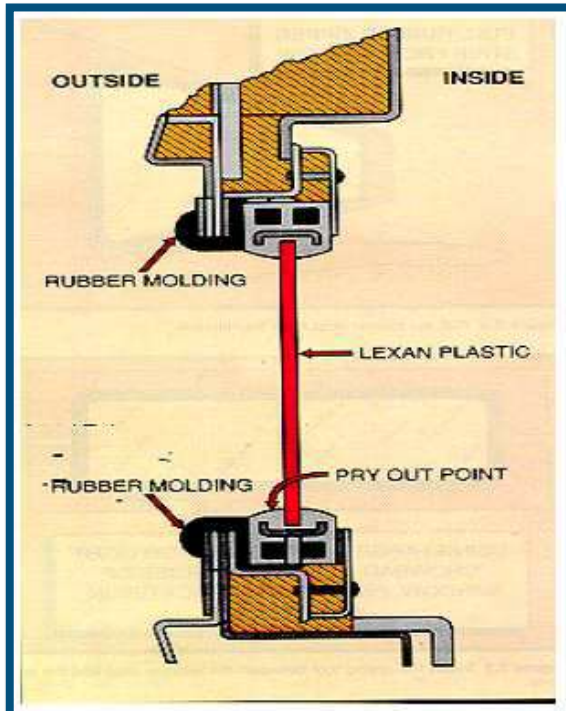
HAS TRAIN MOVEMENT BEEN STOPPED???

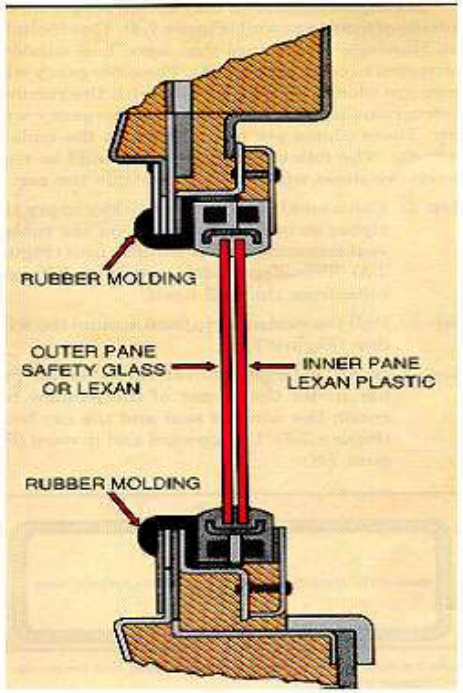
Lexan® windows, do not attempt to cut/saw, will bind equipment

All coach cars have emergency access windows

EMERGENCY WINDOW REMOVAL - INTERIOR

Emergency Windows





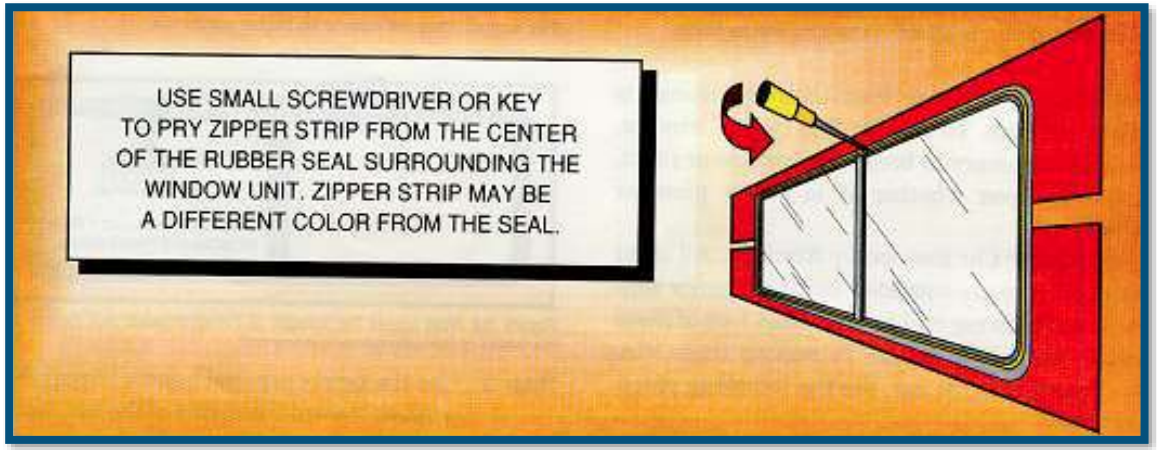
Passenger Car Emergency Windows. All passenger cars are equipped with emergency window exits. Each car will have at least four of these window exits. To remove these windows from inside the car, use the following procedure:

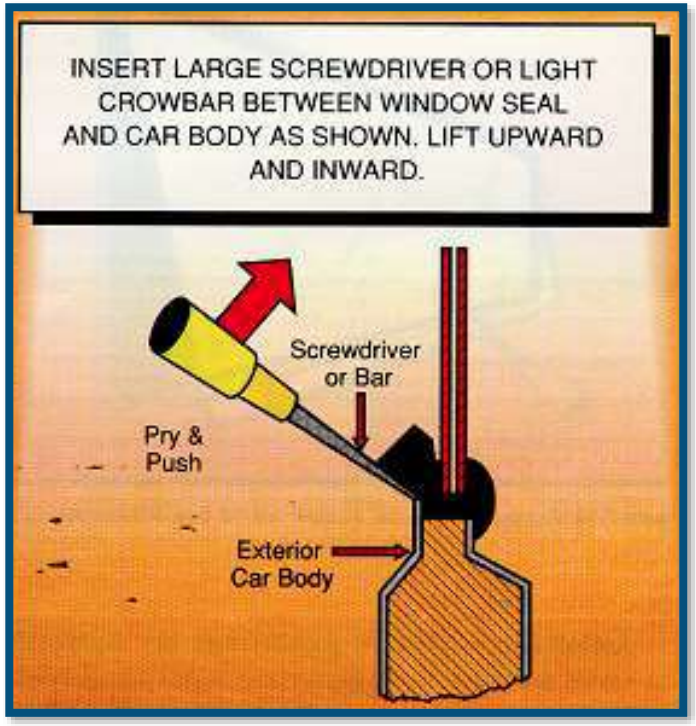
Step 1: Pull the red emergency handle in and remove the rubber molding.

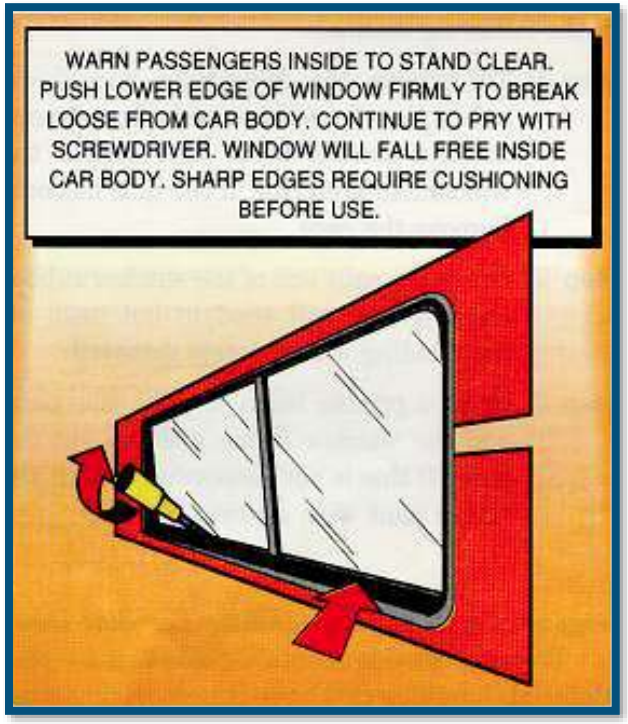
Step 2: Use the newly exposed metal handle to pull the window toward the inside of the car. Note that only one-half the window is designed to come out.

EMERGENCY WINDOW REMOVAL - EXTERIOR

Removal of Windows from Exterior





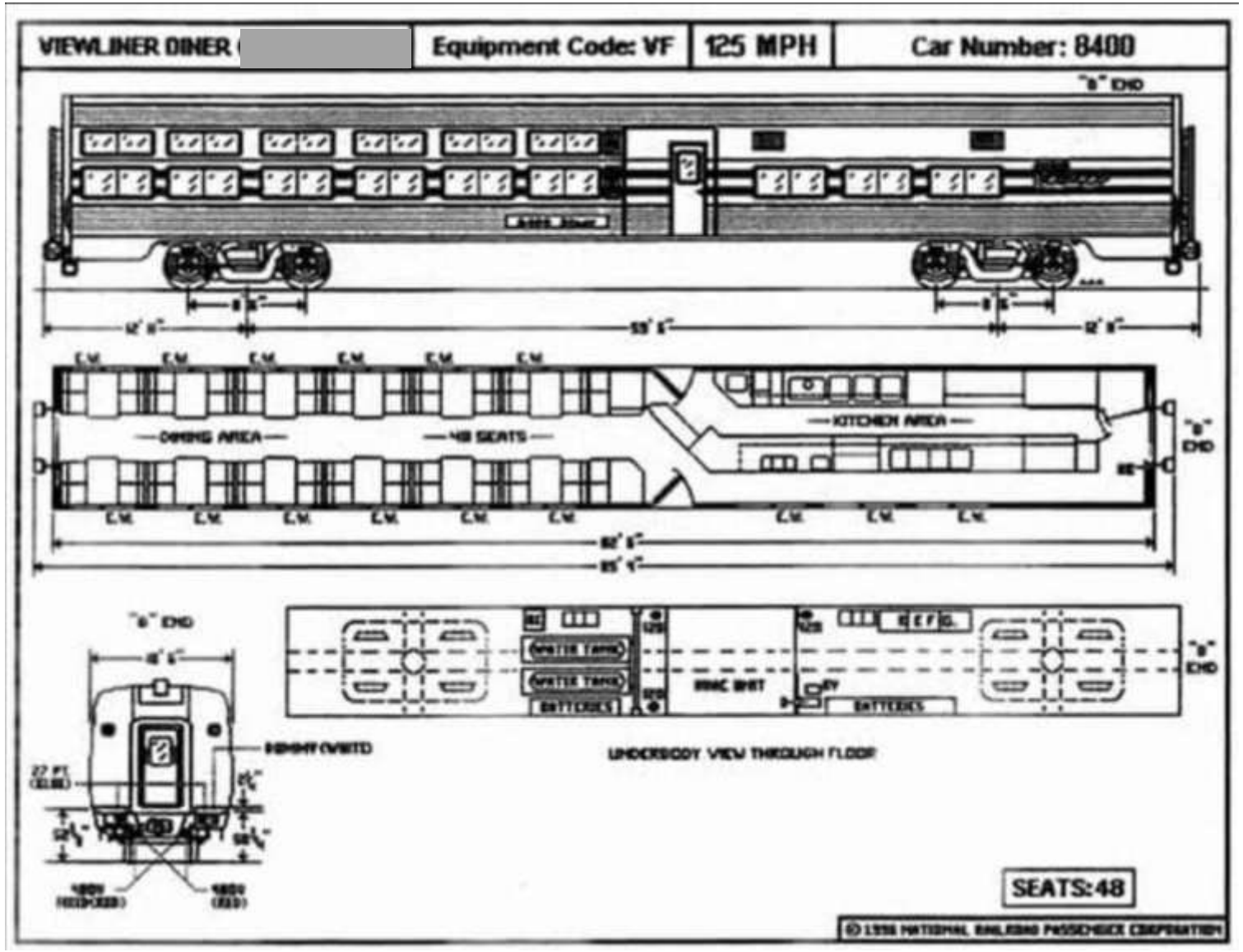


DO NOT, DO NOT….. PLACE PORTABLE LADDERS AGAINST THE TRAIN UNTIL YOU RECEIVE CONFIRMATION THAT POWER HAS BEEN REMOVED AND THE CATENARY WIRE HAS BEEN GROUNDED!!!!!!

AMFLEET SERIES-DOORS

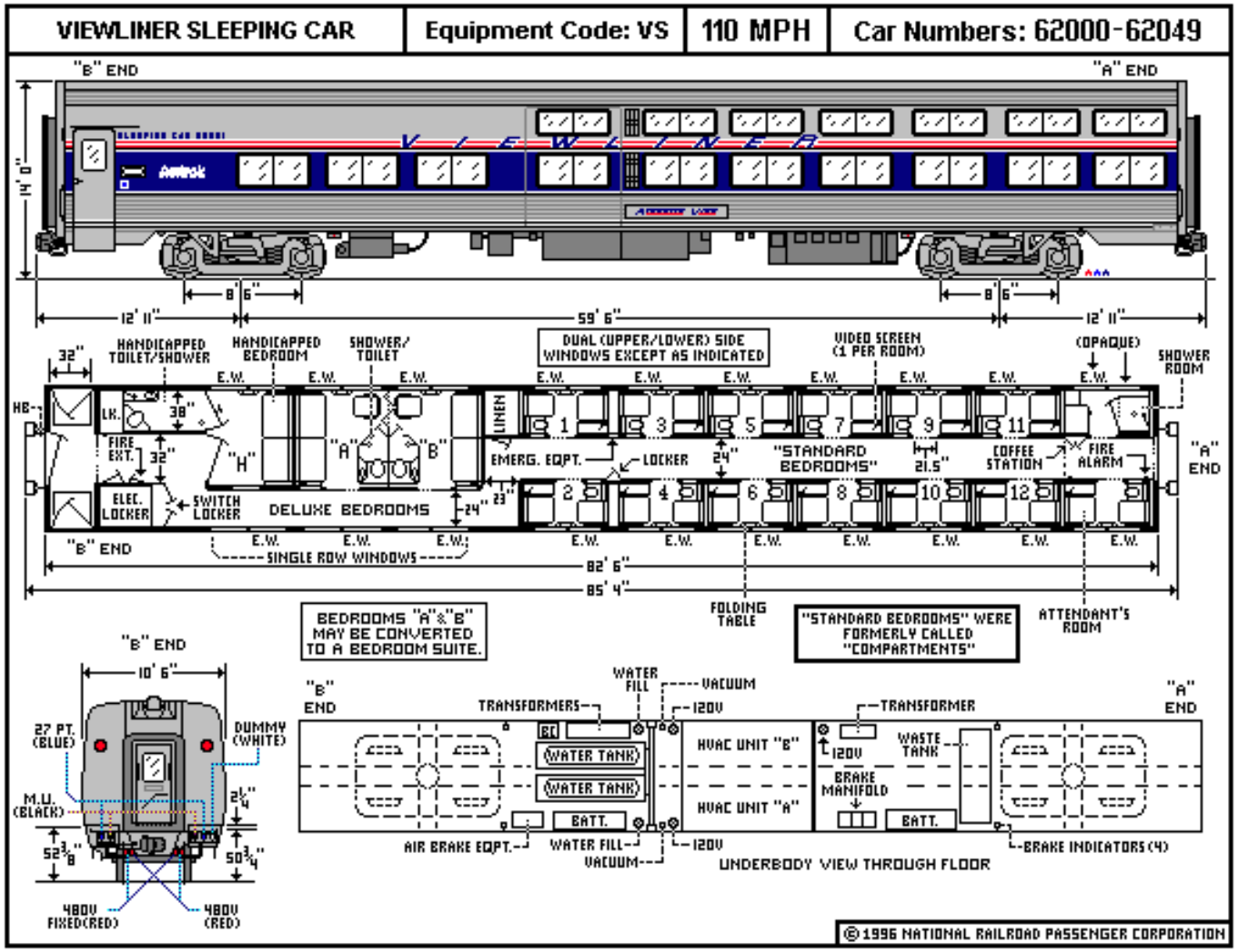
AMFLEET STEPS

AMFLEET Series – Emergency Brake

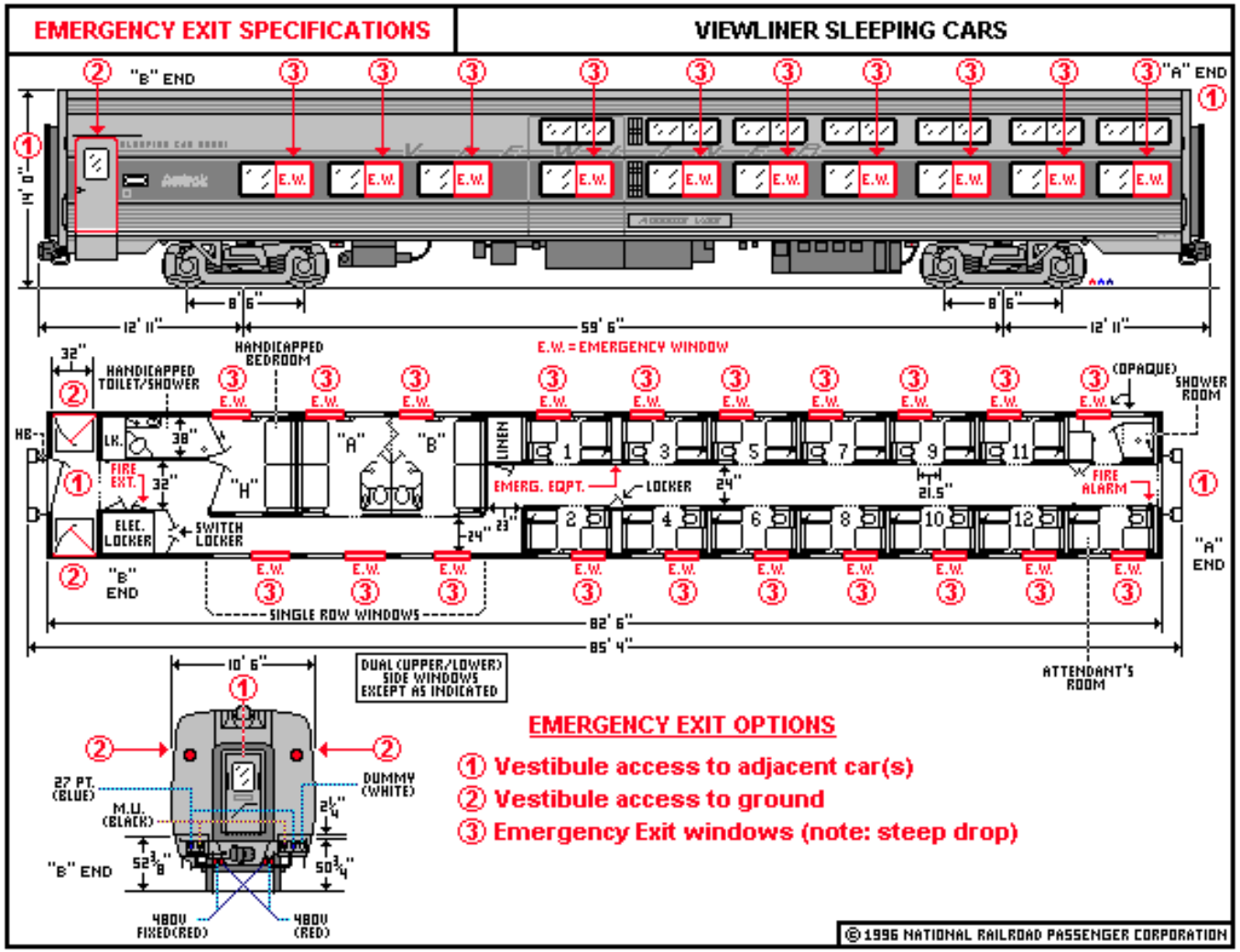

VIEWLINER DINER
Equipment Code: VF
125 MPH
Car Number: 8400
DINING AREA
48 SEATS
KITCHEN AREA
SEATS:48

VIEWLINER DINNING CAR

Viewliner Sleeper



Viewliner Sleeper – Emergency Exits



VIEWLINER SLEEPER

24 inch wide corridor between the two person sleeping compartments

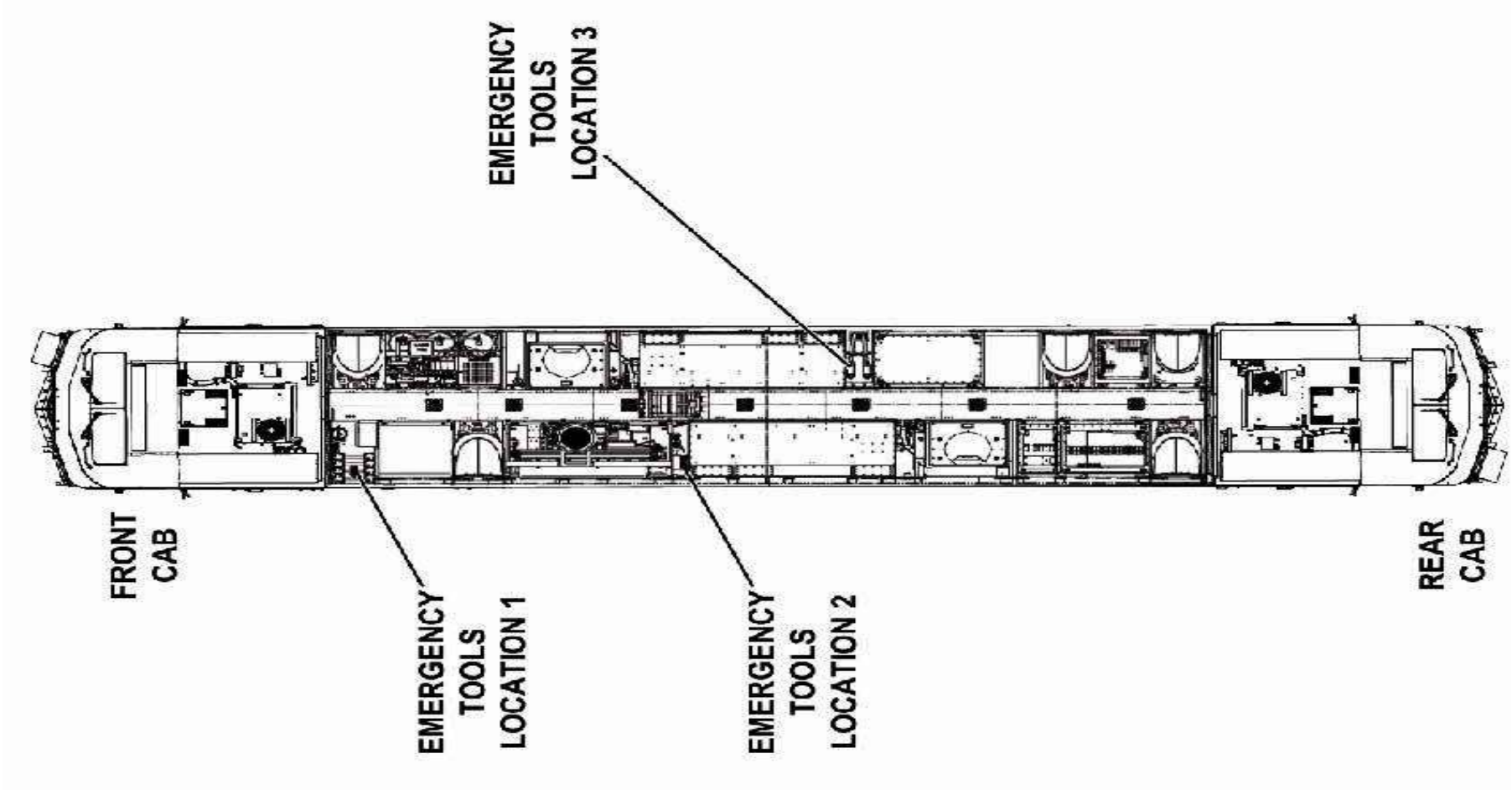
24” between outside wall and 4 person sleepers

BAGGAGE CARS

Amtrak ACS-64 Locomotive

2 ½” National Standard FD Connection.
DO NOT USE UNTIL AUTHORIZED BY AMTRAK

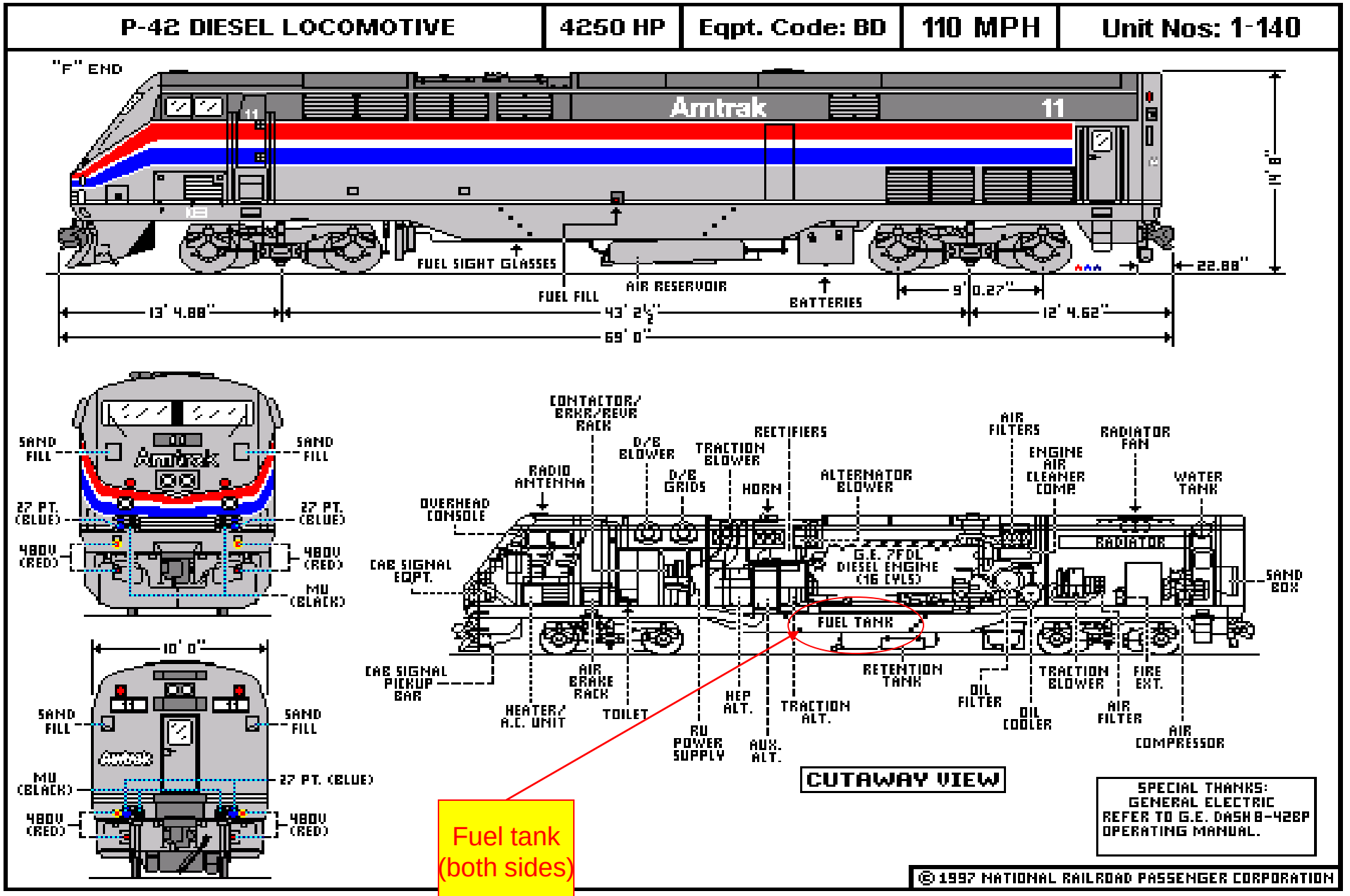
ACS-64 Electric Locomotive



Traction Motors

P- 42 Diesel Locomotive

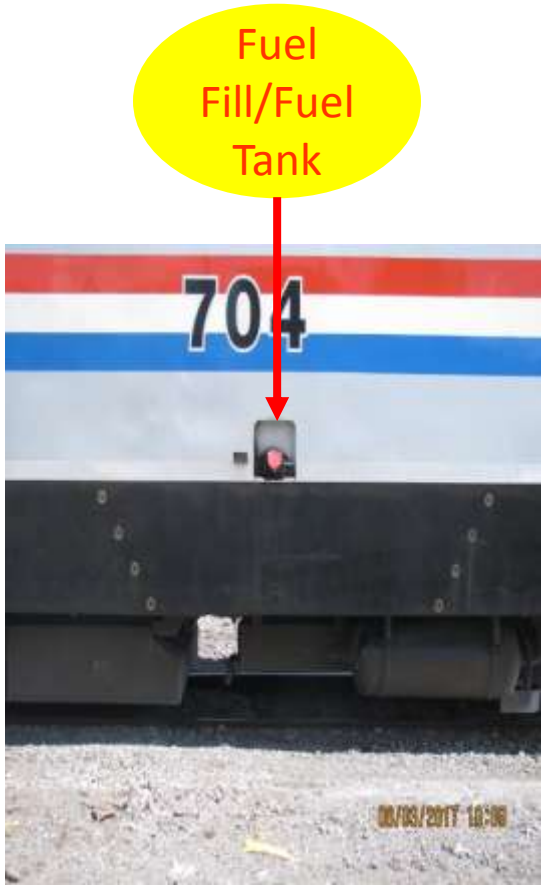
Generally, If you see headlights, the train is coming towards you.



Fuel tank (both sides)

P-42 Locomotive-Emergency Fuel Shutoffs

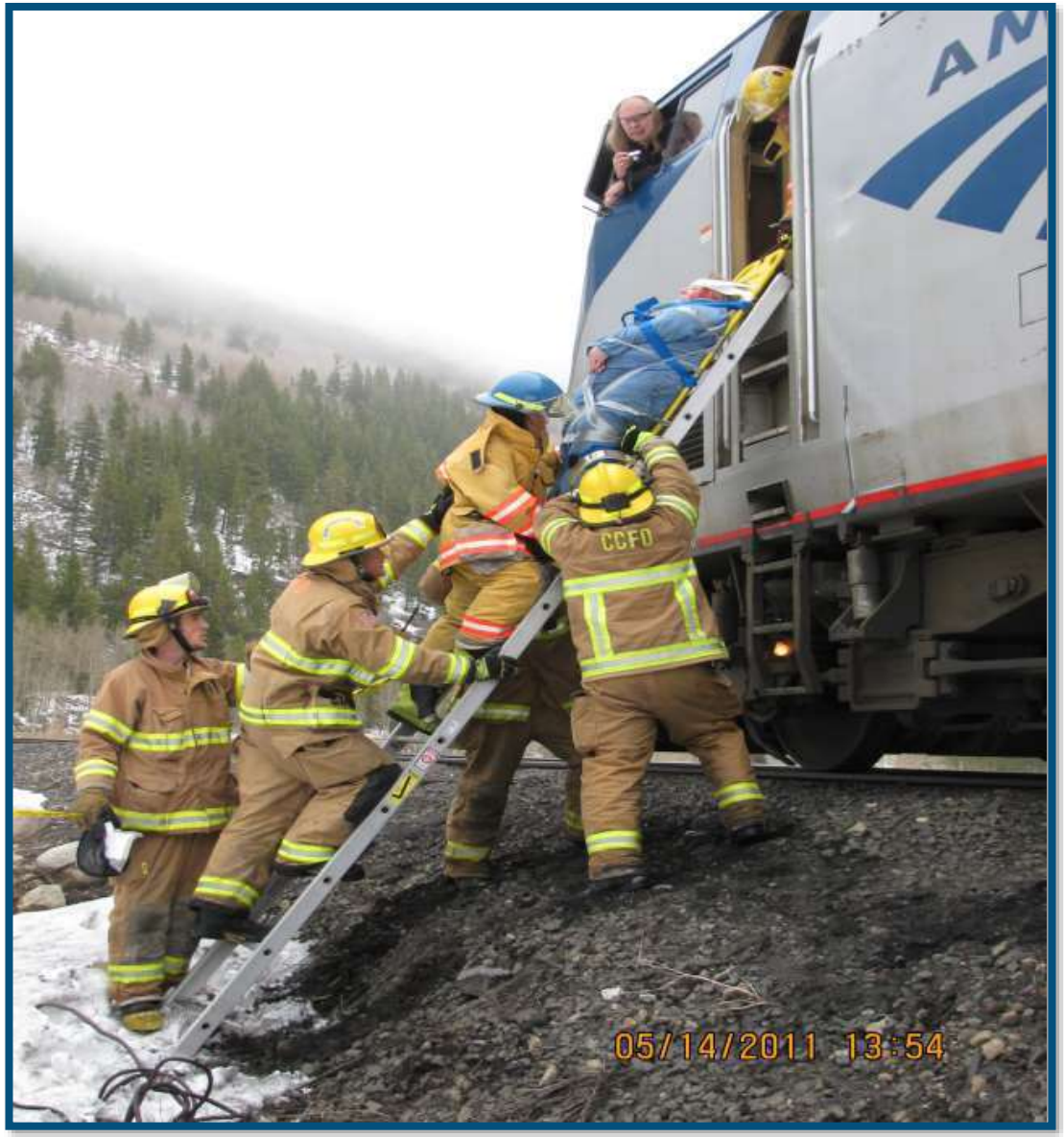
Emergency Fuel Trips (shut offs) on each side of the locomotive.



Emergency fuel Trip (shut off) on the panel on the rear wall of the engineers compartment

Marker Lights – Rear End of the Train

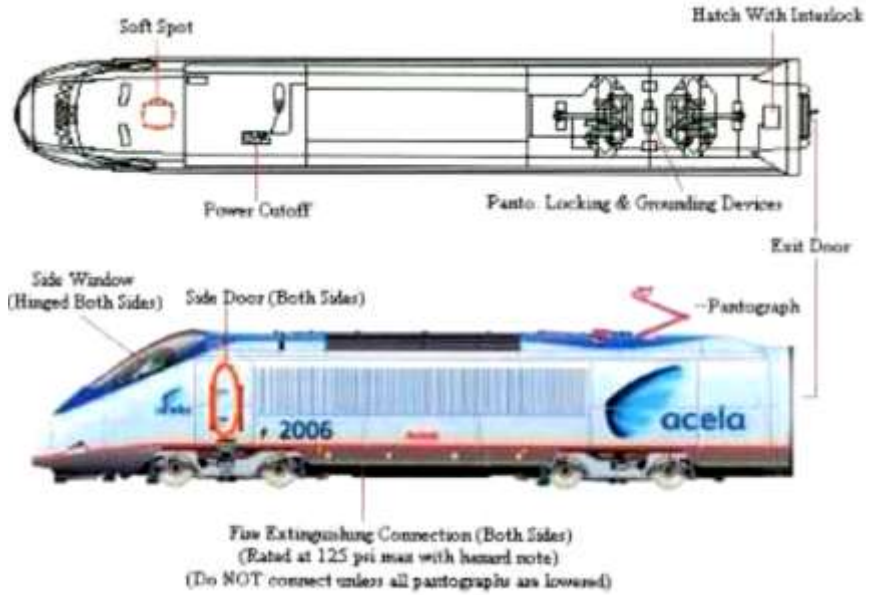

AMTRAK
12/24/2006


CCFD
05/14/2011 13:54

Acela Locomotive

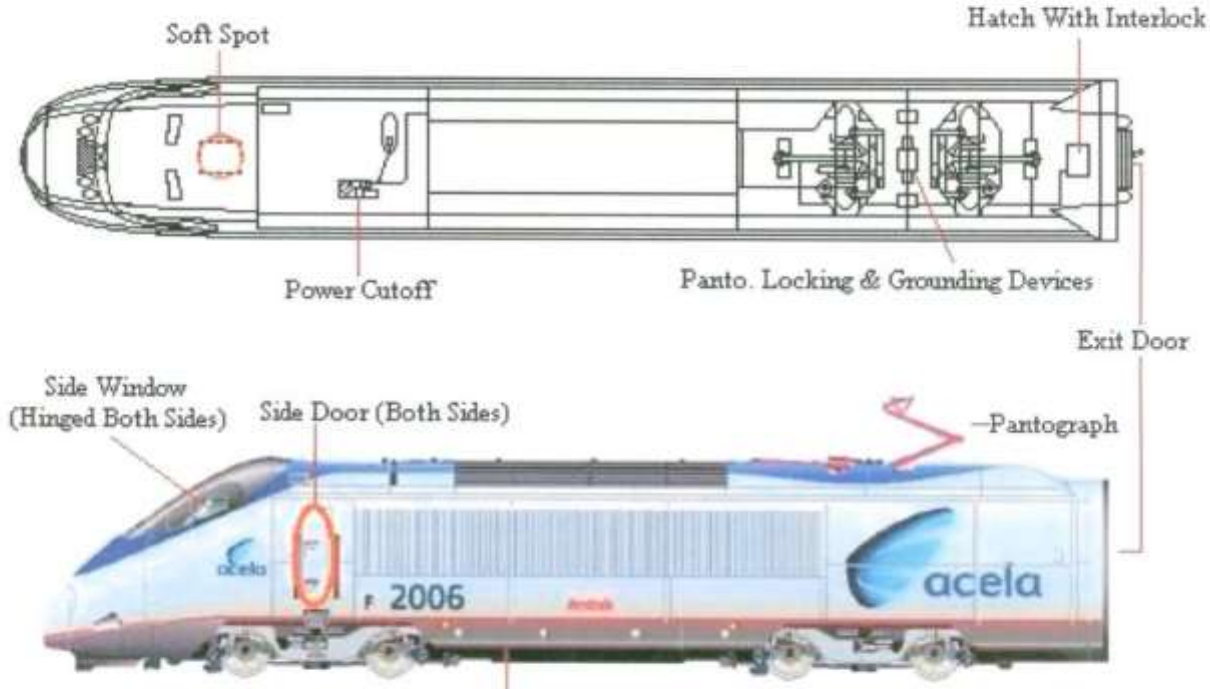
EQUIPMENT (20 TRAINSETS) HAVE A POWER CAR/LOCOMOTIVE ON EACH END. THE END DOORS OF THE COACH CARS ON BOTH ENDS OF THE CONSIST ARE NOT ACCESIBLE DUE TO THE POWER CARS.

These trainsets are semi-permanently connected and can only be broken down in a shop environment by Amtrak High Speed Rail Mechanical personnel.



Acela Locomotive

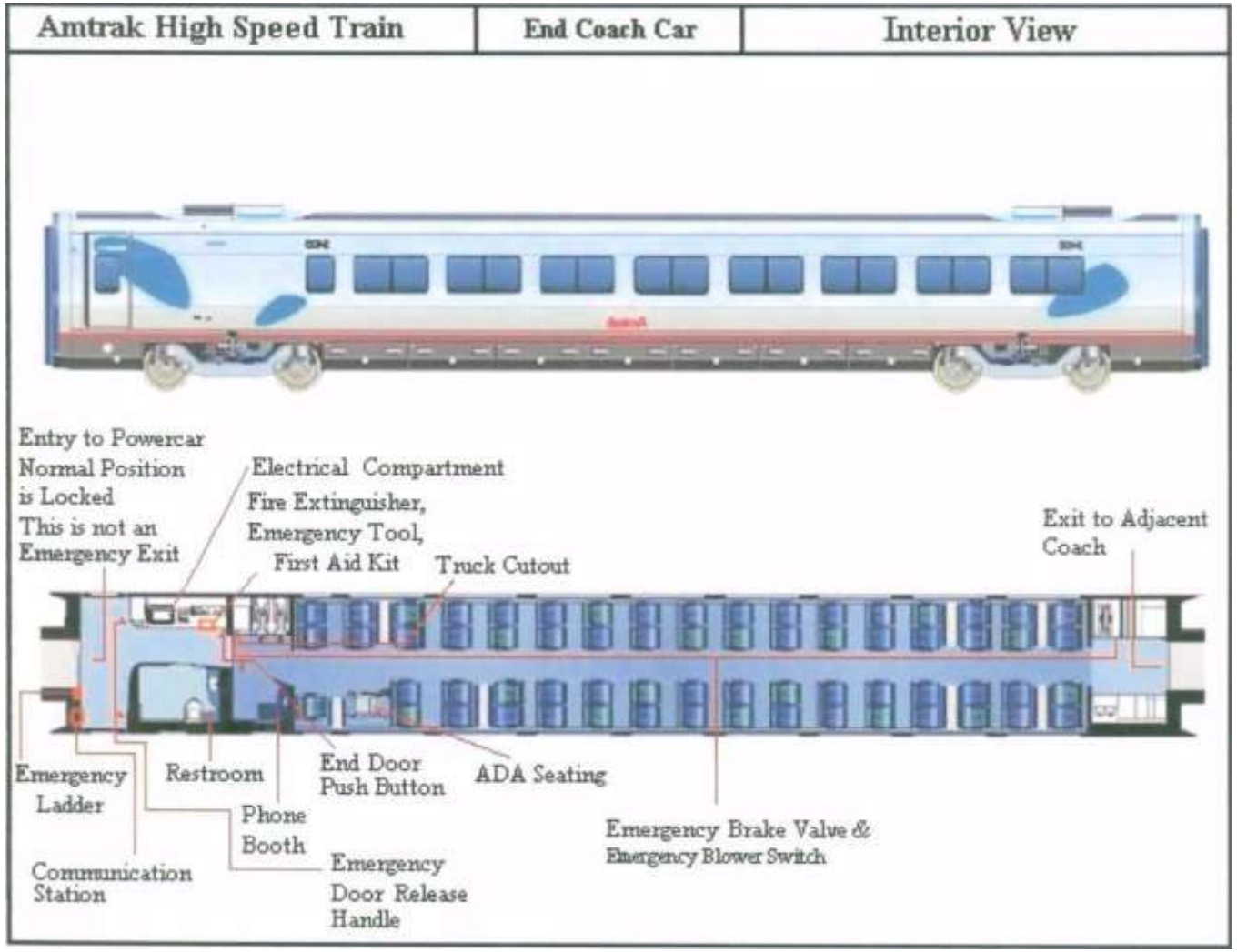
Amtrak High Speed Train	Power Car	Exterior View



Dining Coach

Amtrak High Speed Train	Café	Interior View

Acela Coach


Amtrak High Speed Train
End Coach Car
Interior View
Entry to Powercar
Normal Position
is Locked
This is not an
Emergency Exit
Electrical Compartment
Fire Extinguisher,
Emergency Tool,
First Aid Kit
Truck Cutout
Exit to Adjacent
Coach
Emergency
Ladder
Restroom
End Door
Push Button
ADA Seating
Phone
Booth
Communication
Station
Emergency
Door Release
Handle
Emergency Brake Valve &
Emergency Blower Switch

Acela Exterior Door Release

Interior Emergency Door Release

Emergency Brake & Track Access/Egress Ladder

Acela Emergency Egress Ladder

These collapsible stairways are located in every vestibule in all cars.

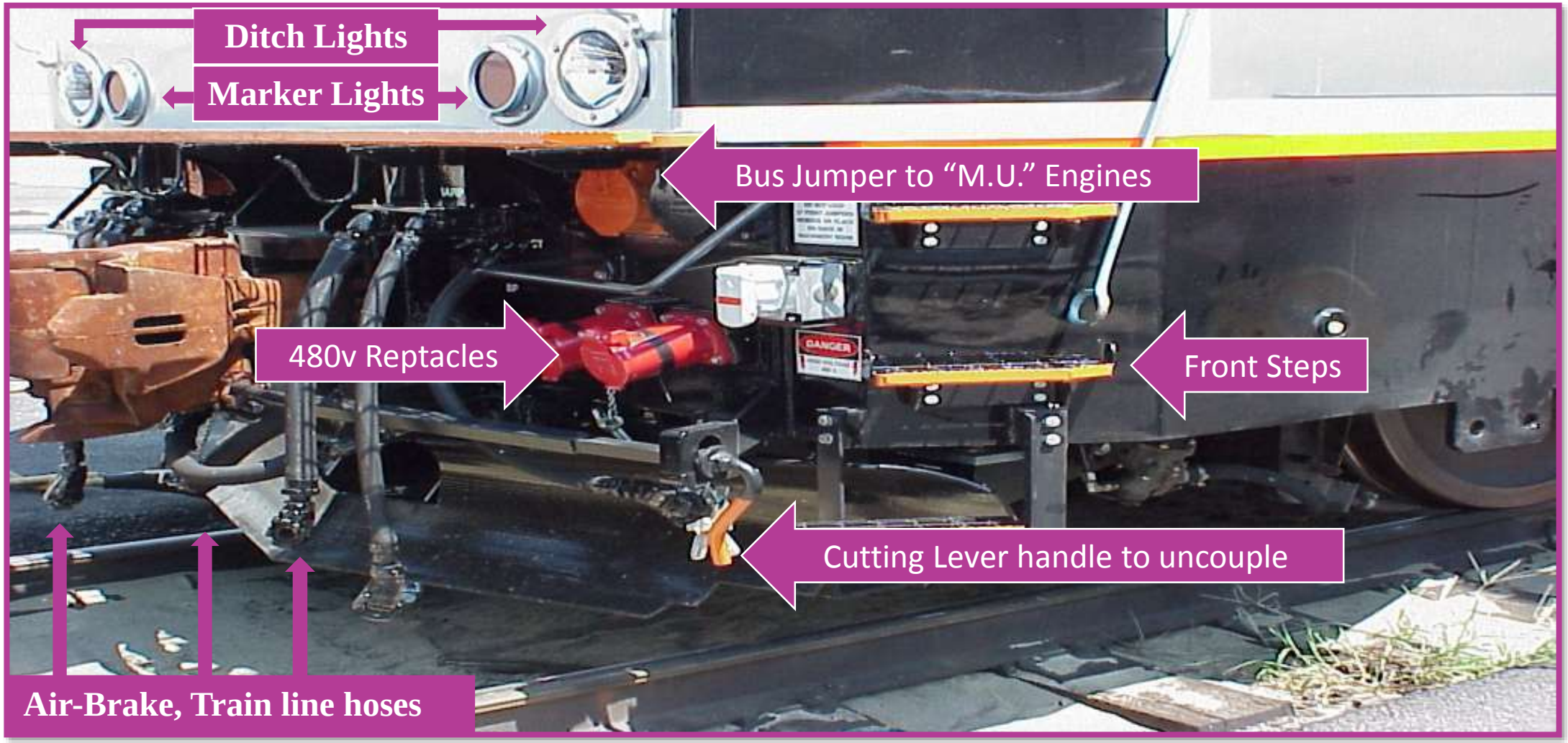
2017 Sideswipe/Derailment, New York

Passenger Reception Center, Triage Area/Treatment Area
Amtrak's Incident (Major) Response Team

ACELA 2021: Coming Late Fall of 2021

Electric Locomotive - ALP46 Series

ALP46 Features – Exterior Front & Rear



NJTRANSIT ALP46 Features

ALP45 DP (Dual Power)

NJTRANSIT Multi-Level Cab/Coach

NJTRANSIT Multi-Level Interior

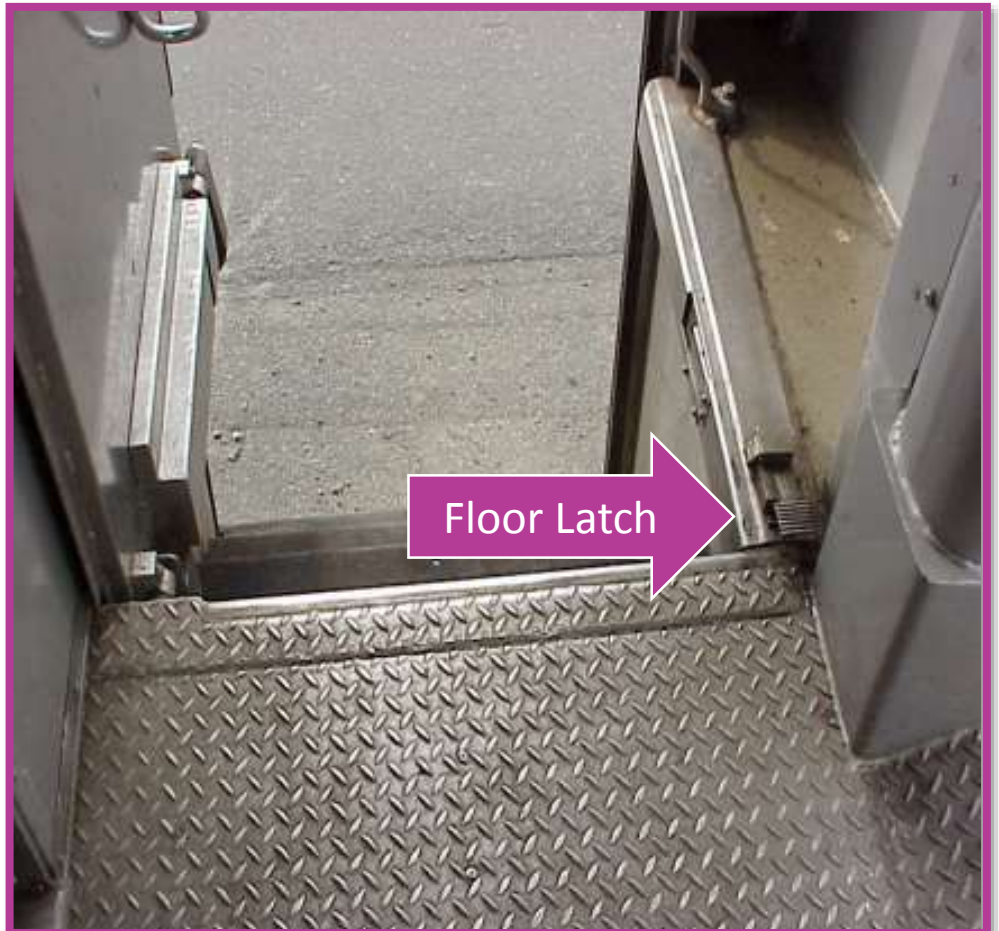
NJTRANSIT Multi-Level & Comet 5 Emergency Door Release

NJTRANSIT Multi-Level Cab/Coach Emergency Interior Door Release

When in doubt, read the instructions!

Types of Emergency Door Release Handles

Trap Door Operations



Trap Door in Raised/Locked Position

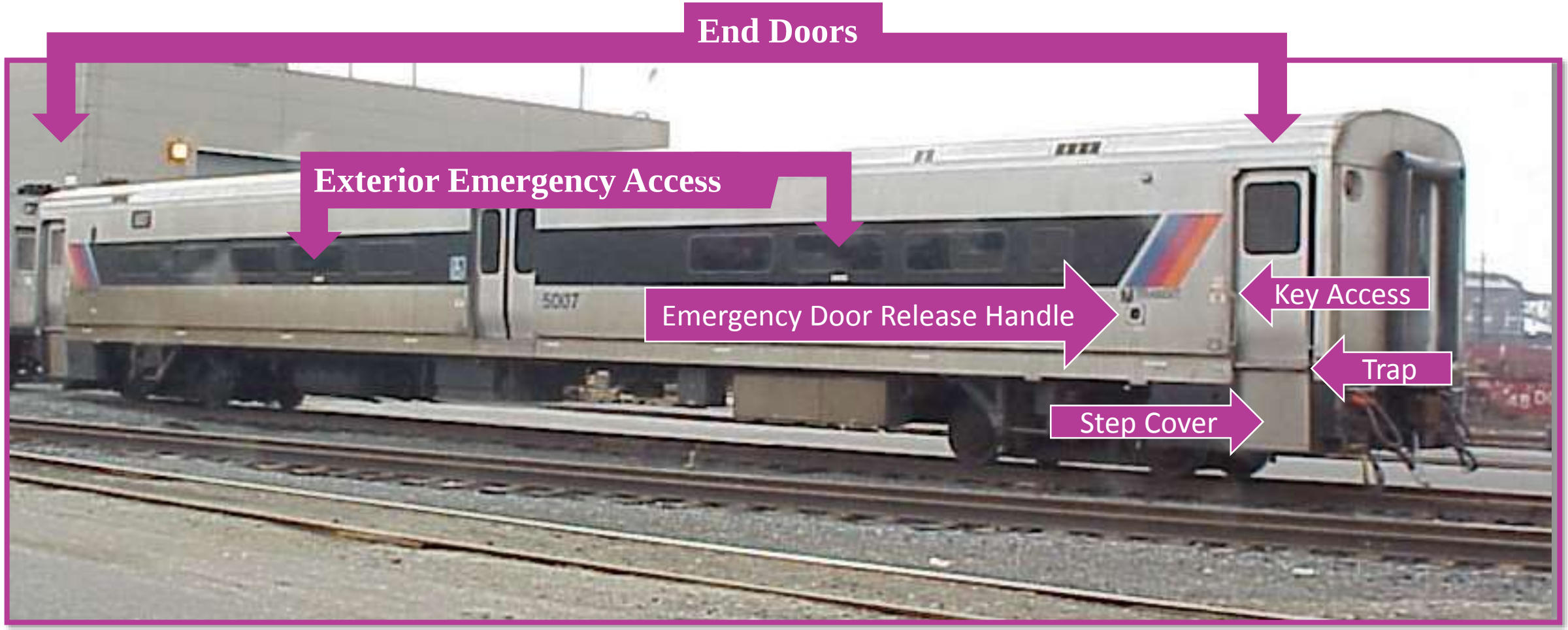
- With a secure handhold, step on floor latch (various types),keep heel over trap to keep from springing up
- Keep body clear
- Take hold of grab iron on trap bottom
- Secure against wall latch to reveal steps

NJTRANSIT Common Features:

Comet Arrow & Multi-Level cars

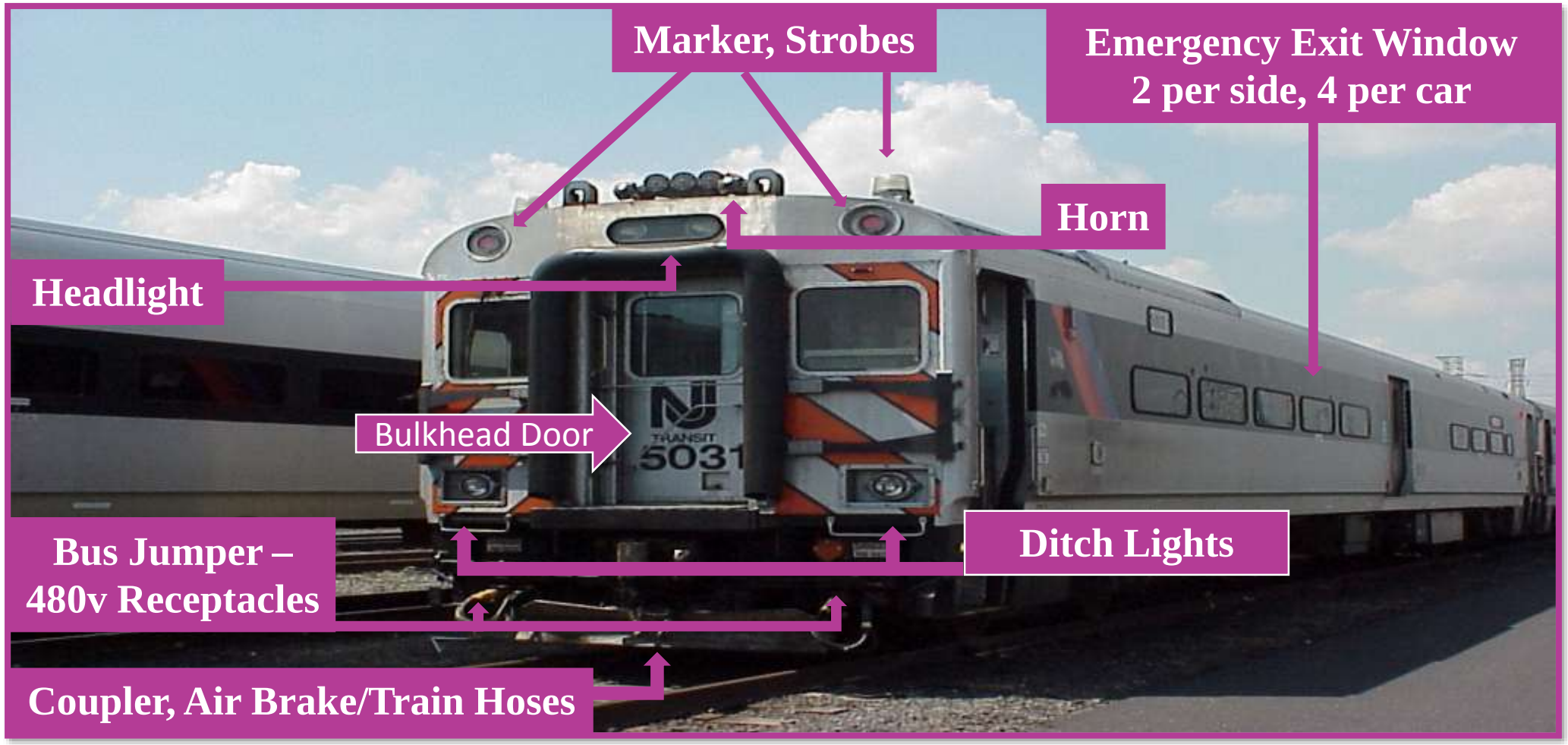
- Battery Compartment
- Stand-by Power for radios and lights
- Same hazards as a Car or Truck Battery - Contains Corrosive Acid

NJTRANSIT Comet III, IV & V Common Features



Equipped with center doors

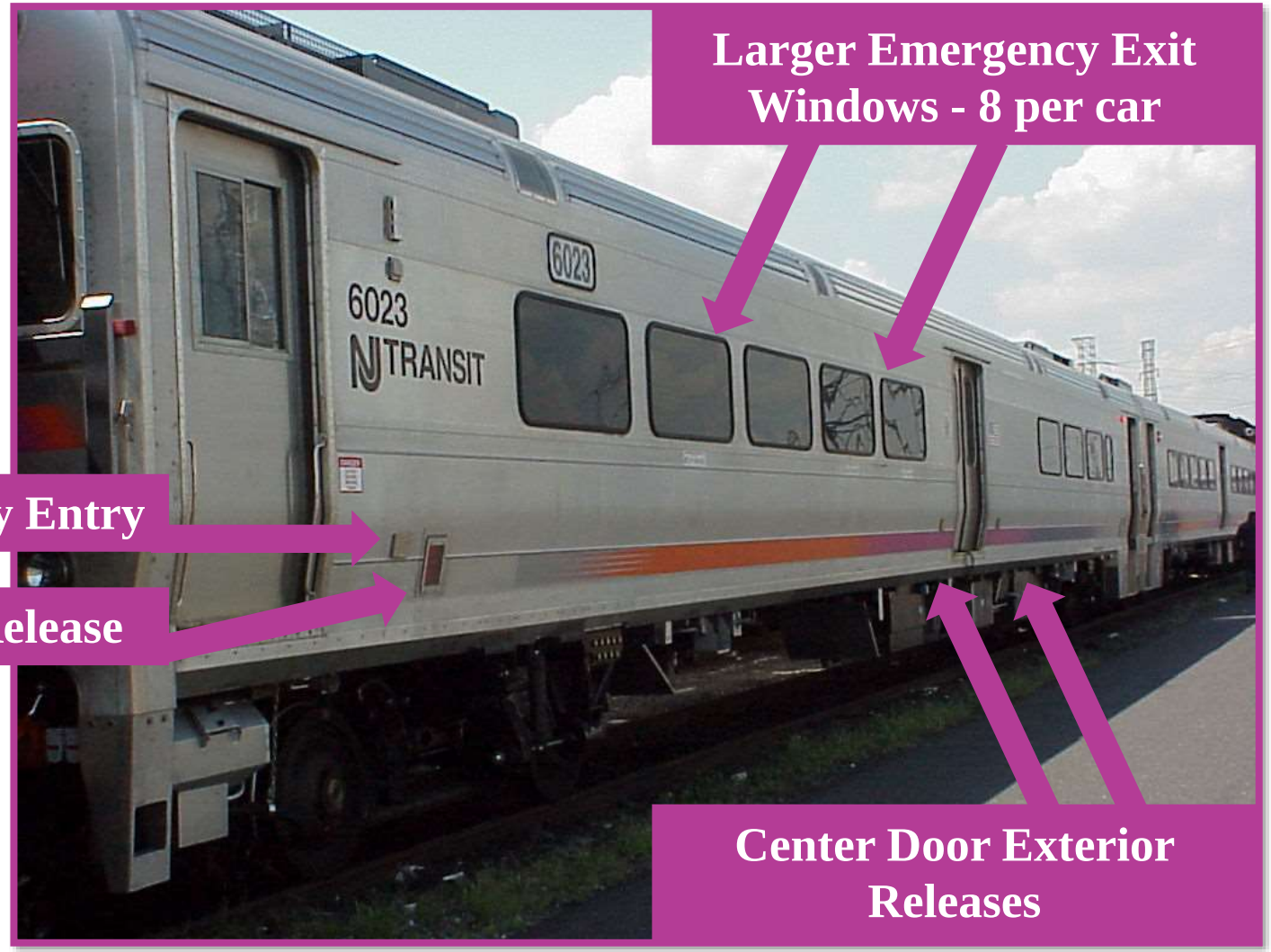
NJTRANSIT Comet IV Cab Car



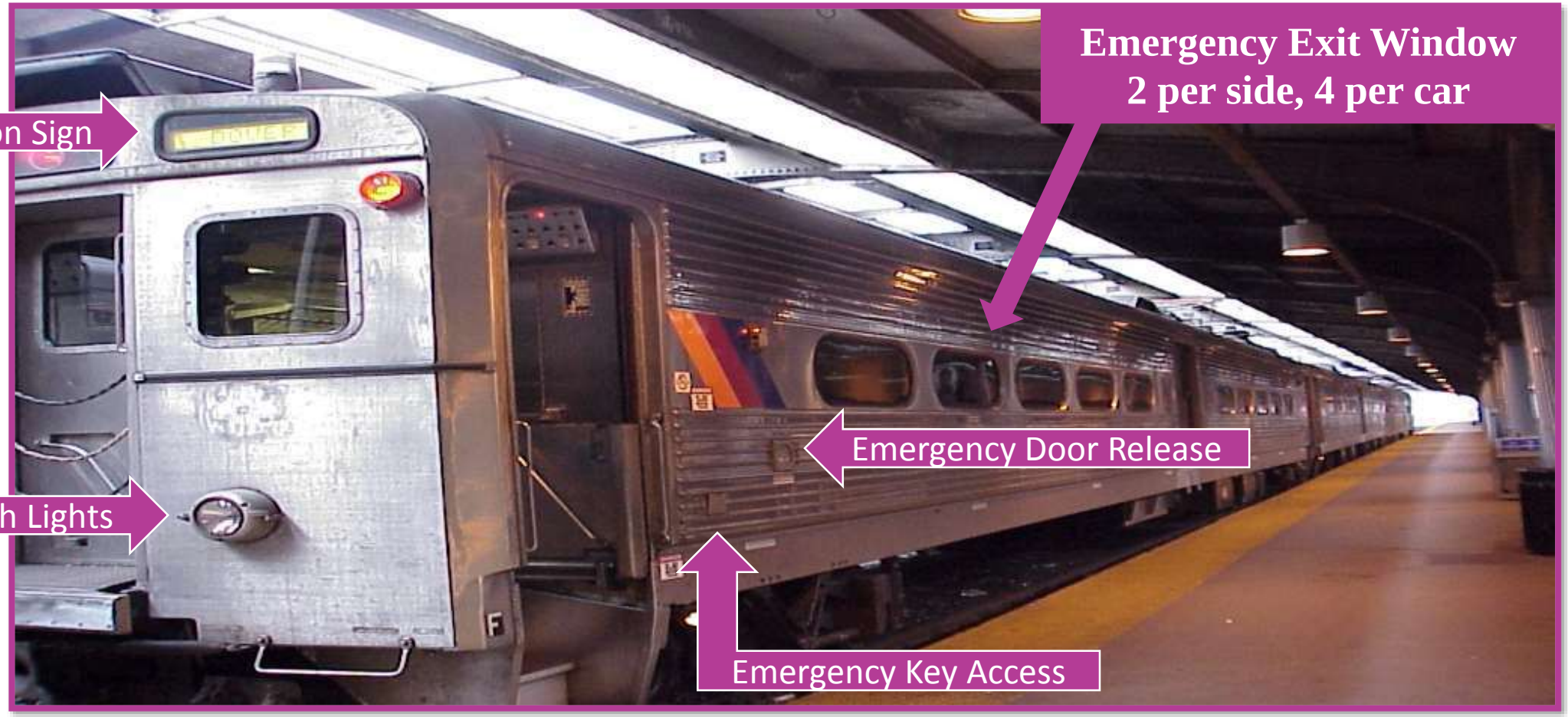
Comet IV Emergency Door Cabinet

- Like others, located adjacent to each exterior door
- Place door switch on cutout
- Read instructions on cabinet door – operate red ring
- Opens door part way
- Go to adjacent side door and open manually

NJTRANSIT Comet V



NJTRANSIT Multi-Level & Comet 5



SEPTA EQUIPMENT

Recommended Guidelines for Fire Suppression Operations Involving Engine Compartment Fires on P-32 and P-42 Locomotives

Over the past few years there have been a number of fires involving P-42 and P-32 Genesis Locomotives across the country.

This training/safety bulletin was put together to assist fire service personnel prepare for their responses to a fire involving one of these locomotives. This document provides basic recommended guidelines for dealing with fires within the engine compartment of a P-42 or P-32 locomotive.

This bulletin is not a substitute for a structured railroad emergency response training program. It is recommended that all fire service personnel in New York State, with the potential of being involved a passenger train emergency, participate in the New York State Passenger Train Emergency Response Procedures Course. For more information about this training in New York State, contact the following:

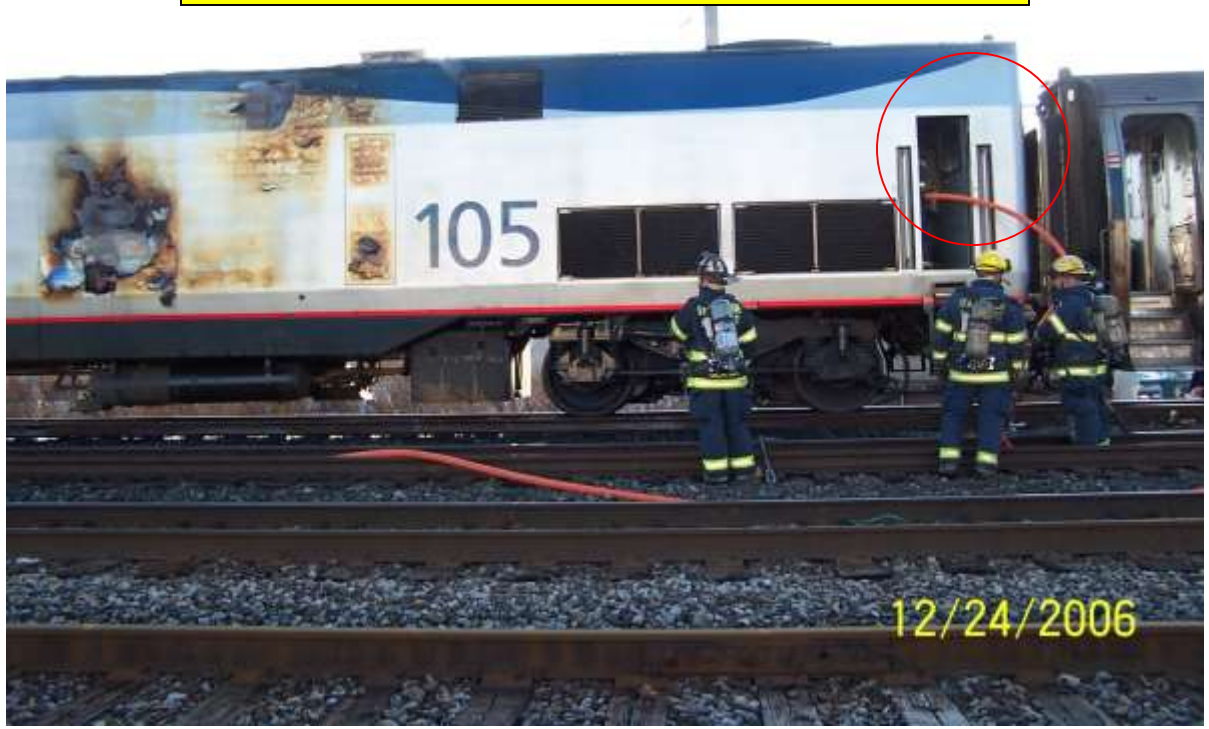
- **Amtrak**: Chief Gary Hearn, Fire Safety – Emergency Management, 212-630-7163

It is recommended that all fire service personnel in New York State with the potential of being involved in an incident involving a *freight* train, participate in the Rail Safety for Emergency Responders Course. For more information about this training, visit www.oli.org. This program is administered through Operation Lifesaver and all inquiries can be directed to the New York State Executive Director via email at NYSOPLIFESAVER@aol.com.

- Confer with the train crew (Conductor & Engineer).
- Create a safety zone and request that train movement be stopped on the tracks that impact incident operations, or are impacted by the incident. WAIT FOR THE CONFIRMATION THAT TRAIN MOVEMENT IS STOPPED BEFORE OPERATING WITHIN 15' OF THE TRACKS, OR STRETCHING HOSELINES ACROSS THE TRACKS.
- **If the train crew is not there, check the cab and the bathroom.**
- Make sure the Engine was shut down. If the crew is not present, use one of the emergency fuel shut off's on either side of the locomotive.
- These locomotives can carry between 1800 and 2400 gallons of diesel fuel

Recommended Fire Suppression Operations

Stretch a foam line (Class B Foam) to the rear door.



Recommended Fire Suppression Operations

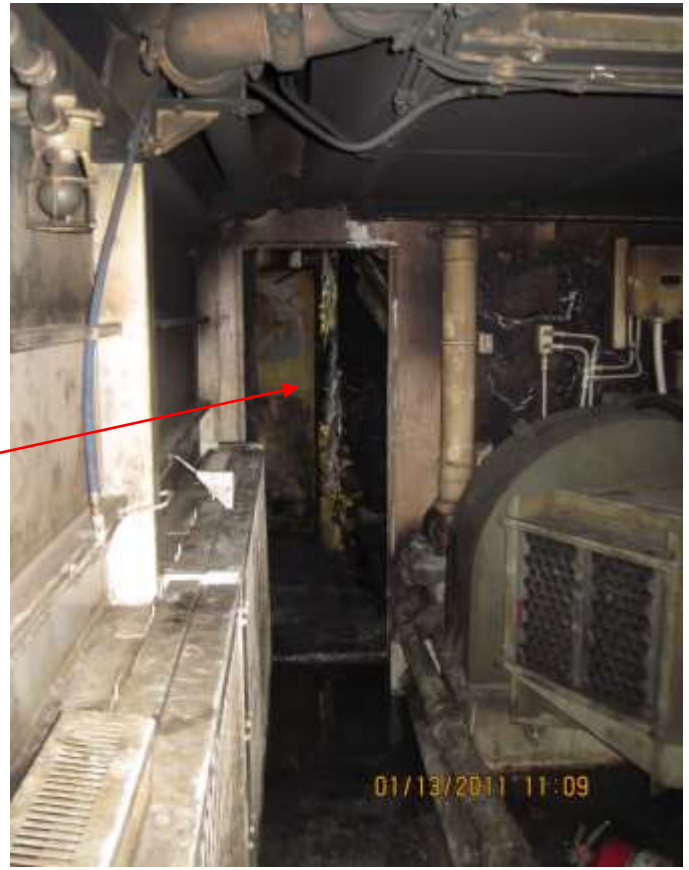
If necessary, stretch a handline(s) to protect the fuel tanks and extinguish burning paint on the side(s) of the locomotive.

If this door is locked, have the train crew unlock the door. If there is no one on the scene with a key (in a yard, for example), place a ladder against the locomotive, remove the gasket from around the window, remove the window, reach in and open the door.

Don your face piece, enter the rear door, and stay low

Operate the foam line from this door into the engine compartment.

NOTE – There is more equipment in this area on a dual mode P-32 locomotive, making it a “tighter” area to operate in.



Metro North Railroad Derailment/Collision
May 17, 2013

QUESTIONS

For additional information on railroad operations or railroad emergency procedures contact:

Gary Hearn
Office: 212-630-7163
Cell: 646-773-6311
E-Mail: hearng@amtrak.com