

## **Rescue Squad Responsibilities At Metro Incidents**

This manual is not intended to replace regular and hands-on training in and on the METRO system. Metro incidents can be rather complex and require that all parties adhere to the SOPs and that they take their assigned positions without fail.

### **Rescue Squad Responsibilities**

- Go to dispatched location
- Proceed to the Command Post for instructions
- Note the location of ETEC cart and be prepared to obtain it if necessary and/or appropriate.
- Ensure the completion of a systematic search.

### **Incident within a Tunnel**

Assemble at the designated entry point and prepare to assist with fire attack/rescue or patient care as appropriate. Await instructions from IC. The crew will be assigned to either the first engine work group or the fourth engine work group.

#### **Equipment Needed**

- Full PPE 45 or 60 min. SCBA
- Portable Radio
- ETEC when appropriate
- METRO bag
- Consider rescue/extrication equipment. *(Remember that the tunnel is a confined space and that the running of gas-powered tools may not be the best idea. CO build-up and low O2 levels could create a hazard.)*
- Consider Stokes basket/Reeves Stretcher/SKED/ etc.
- O2 and aide bag.

### **Rescue Squad Responsibilities on a Metro Task Force**

*A METRO Task Force is the assignment dispatched on tunnel incidents to the next closest station or entry point.*

- Report to the dispatched entry point.
- Proceed to kiosk/Command Post to get instructions.
- Obtain ETEC cart if appropriate.
- Be prepared to function as the METRO Task Force RIC.

#### **Equipment**

- Full PPE 45 or 60 min. SCBA
- Portable Radio
- ETEC when appropriate
- METRO bag
- Consider rescue/extrication equipment. *(Remember that the tunnel is a confined space and that the running of gas-powered tools may not be the best idea. CO build-up and low O2 levels could create a hazard.)*
- Consider Stokes basket/Reeves Stretcher/SKED/ etc.
- O2 and aide bag.

## Lifting Metro Rail Cars



METRO cars weigh around 80,000 pounds, which is approximately 40 tons. Every so often, for one reason or another someone gets trapped underneath the wheels of one of these trains.

This guide is designed to:

1. To provide a risk/benefit framework for rescue decision making
2. Refresh your memory about how to lift rail cars.

A patient who is trapped underneath one of the wheels may be trapped by an arm or leg or their entire body may be underneath the wheels. While it is likely that any trapped appendage will be lost given the weight of the rail car our priority must be the rescue of the patient. If

the victim is not alive on arrival, or at any point meets the PDOA requirements of the Maryland State EMS Protocol, the operation will shift from rescue mode to recovery mode. If the event becomes a recovery operation, the scene will become a crime scene and will need to be treated as such.

The operation of lifting a rail car involves placing personnel under the train and is inherently risky. Rescuers must be careful to avoid allowing the stress of having a live victim under a train detract from their exercising sound judgment and/or their adherence to safety rules and procedures.

### **AIR BAG LIFT (*Preferred method*)**

The objective is to generate between 1/8" and 1/4" of even lift on the rail car, just enough to free trapped appendages.

#### **Equipment Needed:**

- (2) Airbags - 20 tons minimum.
- Enough cribbing to build approximately four feet of solid box cribbing.
- Wedges
- Air bag tools (SCBA adapters, hoses etc.)
- Lights
- Other tools as appropriate and deemed necessary by the officer.

#### **Accessing the rail car lift point:**

Perhaps the most dangerous part of the lifting operation is accessing the spot where the lift will take place. This is usually done by inserting a rescuer from each end of the train. Do not have personnel make access until the third rail has been secured, the rail car has been chocked, WASDs have been placed, and any other safety issues have been managed.

#### **Lifting points:**

Each series of rail car has designated lifting points on the underbelly of the car. These points are not marked, and given the prevalent light conditions and limited mobility under the car, they will not be easy to spot. Rescuers should attempt to locate a point on the rail car underbelly adjacent to where the lift will need to take place. Every attempt should be made to locate the gear box as shown in the photo on the next page.

Position on the frame portion of the underbelly to support the lift.

**Lifting caution:**

At no point should the flange of the wheel of the rail be lifted above the running rail. The only thing that holds the train on the track is gravity and the flange. **Your maximum lift is going to be in the 1/8" to 1/4" range.** You will only be lifting on one side of the car, 1/2 of the weight of the car.



**Things to remember:**

- Establish a Safety Officer.
- Before starting check third rail status.
- Use volt-probe to confirm third rail status.
- Place WASDs on either end of the incident.
- Use the minimum number of people.
- Chock every wheel on the rail car except the one at the truck you are lifting.
- Two people have to be under the rail car. They approach the incident from opposite ends.
- There needs to be a spotter. This is the only person relaying messages from the persons under the train to the person at the air bag controller.
- Remember that the rail cars are self-leveling. The air bags on the opposite side of the train will fight you. (On the 2000 and higher series cars you can disable the self-leveling airbags.)
- If you are at the platform you should chock the rail car. Use step chocks between the car and the platform. (This keeps the car from falling back against the platform.)
- Have the chosen method of patient removal prepared before you begin to lift.
- You must cover the top of the air bags with cribbing; puncture of the bag is a real possibility.
- Demobilize safely.
- Know the lift points. As a reminder reference the picture of the underside of a rail car below.

**USING BOTTLE JACKS**

Bottle jacks are an alternative to the airbag method of lifting rail cars. You must have, at least, a 20 ton bottle jack. Like with air bags the object is not to lift the entire car off of the rail. You are trying only to lift enough to get the trapped body part out.

**Equipment-**

- 1 bottle jack at least 20 tons
- Cribbing enough to build about four feet of solid box cribbing.
- Wedges
- Lights
- ...other tools as appropriate and determined by the officer.

**Things to remember:**

- Establish a Safety Officer.
- Before starting check third rail status.
- Use volt-probe to confirm third rail status.
- Place WASDs on either end of the incident.
- Use the minimum number of people.
- Chock every wheel on the rail car except the one at the truck you are lifting.
- Remember that the rail cars are self-leveling. The air bags on the opposite side of the train will fight you. (On the 2000 and higher series cars you can disable the self-leveling airbags.)
- If you are at the platform you should chock the rail car. Use step chocks between the car and the platform. (This keeps the car from falling back against the platform.)

- Have the chosen method of patient removal prepared before you begin to lift.
- Demobilized safely.

See following page for a picture of a properly placed bottle jack with appropriate cribbing. Jack plates are found at the ends of the rail cars. Use the jack plate closest to the victim. Know the lift points. As a reminder reference the picture of the underside of a rail car with a properly placed bottle jack.

### ETEC Carts

ETEC carts are found in many stations and in other places along the ROW. They are folding platforms with wheels that fit on the running rails of the METRO system. They are designed to move patients and equipment on the rails.

Reference your METRO maps find out where the carts are kept in a particular station. The door to the room where they are stored will be marked like the one to the left.



This is what an ETEC cart will look like in the stored position. Note: The cart is locked in position with a chain and padlock. (Disregard the trash bag tied to the bottom of the cart. If you run across something like this in the field you will just have to remove it from the cart before using it.)

**ETEC cart in its deployed position.**



## Command Action Guidelines

### FIRST ARRIVING UNITS

*If any Fire/Rescue or EMS unit encounters a situation that appears to be a terrorist incident or a poisonous gas release they should evacuate the surrounding area at least 200 yards and call for specialized assistance.*

- ❑ Begin all Metro incidents with the proper level of PPE and equipment. Place required equipment in stokes baskets for ease of movement – remember one hand light for each responder entering a tunnel.
- ❑ Have responding units assemble at the nearest ENTRY POINT (kiosk, portal or ROW gate.) Proceed to the incident site as one or two task forces. The First Due Unit Officer should immediately find a wayside phone in the kiosk or a Blue Light Box (BLB) and:
  - Place all units on Channel 7. Dial “O” or **1652** to contact OCC
  - Determine the nature and location of the incident.
  - Determine the status of 3<sup>rd</sup>.rail.
  - Determine the status of the tunnel ventilation system.
  - Verify if all the trains stopped in the vicinity of the incident (including CSX.
  - Assign Truck Crews to function as Safety Control Units. Have Rescue Squad crews obtain the ETEC Carts (located at the ends of platforms and tunnel portals.)
  - Establish a conference line (**dial 2218**) advise OCC and the IC that units are proceeding in the tunnel. 3<sup>rd</sup>. rail must be de-energized.
  - Provide a detailed situation report to the IC at the incident site.
- ❑ Water Supply Units (WSU) are to charge the standpipe system immediately. Advise the IC if the system does not charge within 10 minutes. WSU should open but not enter Tunnel Shafts. Advise the IC if tunnel fans are operational from that shaft.

### INCIDENT COMMANDER CHECK LIST

- ❑ Establish Command. Set up a command post at a kiosk or other safe location. Set up a direct phone link with OCC by dialing **1652**, and advise them the location of the Command Post. Request a WMATA police officer to respond to the Command Post to assist you. The first arriving Duty Officer should immediately:
  - Establish a **Command Conference Line** with the OCC supervisor. Dial **1652** to contact OCC supervisor to start this process.
  - Determine the nature and location of incident.
  - Determine the exact distance and direction of 3<sup>rd</sup>.rail power outage.
  - Determine the disposition of passengers, type and amount of cars, and train movement in the area (including CSX.)
  - Determine the status of the ventilation system.
  - Ensure WSAD placement has occurred on all sides of the incident area.
  - Establish a conference line (**dial 2218**) advise OCC that units are proceeding in the tunnel.
  - The 3<sup>rd</sup>. rail must be CONFIRMED de-energized to enter the trackbed.
  - Provide a detailed situation report to ECC.
- ❑ Announce the location of the Incident Crew if IDLH is present. (3<sup>rd</sup>. due Eng. Co. has this function, and they are labeled the Metro RIC)
- ❑ Position the Metro RIC at the end of the Station Platform or a tunnel shaft.

## OTHER METRO INCIDENT MANAGEMENT CONSIDERATIONS

- Establish an additional sector at the second entry point of a tunnel incident.
- Prepare for scene communication systems to overload and degrade quickly.
- Rapidly estimate the number of victims – one rail car can carry up to 200 patrons. Figure 1/2 of the total amount of riders (*directly involved in the collision*) will be non-ambulatory.
- Request Additional resources based on anticipated need. Order BIG and Order EARLY. Command Support, Manpower, Diesel locomotives, Flatcars, Rail Supervisors, More ETEC Carts, Rescue Trains, Buses. Haz.Mat Teams, Medivac Helicopters etc. Quickly setup an equipment staging area.
- Try to keep Victims on the Train. Keep riders informed. Move injured from damaged rail cars to unaffected cars. Do not let victims self-evacuate. Put Metro police on the train to control passengers if necessary. Consider a rescue train on an adjacent track.
- Walking Victims down the tracks is of last resort. If this maneuver must be performed ensure that 3<sup>rd</sup>. rail power is removed and patrons stay between the running rails. (*Figure an evacuation rate 150 per hour for this maneuver.*)
- Divide the incident into manageable sectors. (geographic and/or function)
- Quickly assign liaison officers to the command post to coordinate media, rail, local, state, and federal agencies.
- Provide a site plan and /or area map of the incident label train cars 1,2,3 or A, B, C, etc
- Consider instituting a Unified Command System based on the potential escalation of the incident.
- Assess the feasibility of safety “single tracking” around the incident. This action will reduce the regional magnitude of the incident.
- Terminate the incident properly. Restore power only after the Safe Control units advise IC when all personnel are out of the incident area. Perform an accountability check.
- Monitor for Mental and Physical fatigue. Consider Critical Incident Stress Debriefing Team.

**REVIEW THIS REFERENCE PERIODICALLY TO IMPROVE RECALL.**



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