

**Chicago Transit Authority**

# **Safety Rules**

**December 2008**



## FOREWORD

The Chicago Transit Authority (CTA) is committed to safety - as a mass transit provider and as a workplace for our employees. Compliance with all work and safety rules is the responsibility of every CTA employee and an obligation each of us has to our co-workers, our customers and ourselves.

It's important that every CTA employee know and follow the rules outlined in this Safety Rules book. In addition to other CTA policies, standard operating procedures, bulletins, manuals and training documents, the Safety Rules help protect the people who work at the CTA, our customers, and the people who live and work in the communities we serve. These rules are also critical to meeting the CTA's goal of providing safe, clean, on-time, courteous and efficient service.

Strict adherence to the rules and regulations in the Safety Rules book is vital to ensuring our CTA employees return home safely after each work day and that our customers travel safely to their many destinations. Any employee with questions about the information in this book should contact an immediate supervisor or manager.

Thank you for helping to uphold the CTA's commitment to safety.

A handwritten signature in black ink that reads "Ron Huberman". The signature is written in a cursive style with a long horizontal stroke at the end.

Ron Huberman  
President  
Chicago Transit Authority

## Table of Contents

Rule	Page
<b>Fire Safety</b>	
1-2	<b>1-2</b>
1. What to Do in Case of Fire (How to Call the Fire Department)	1-2
2. Smoking on CTA Property	2
3. Fire Protection When Using Welding Equipment	2
4. Fire Exits and Equipment	2
5. Fire Hoses	2
6. Ventilation When Using Solvents and Welding	2
7. Gasoline in Subway	2
8. Precautions With Flammable Liquids	2
<b>Operation and Servicing of Vehicles</b>	
3-5	<b>3-5</b>
9. Driver's License	3
10. Authorization to Operate Industrial Trucks	3
11. Passengers Riding on Industrial Trucks	3
12. Reckless Operation of Vehicles	3
13. Speed Limit on CTA Property	3
14. Inspecting Industrial Trucks	3
15. Industrial Trucks as Elevators	3
16. Parking Industrial Trucks	3
17. Moving Vehicles	3
18. Spill Control	5
19. Fueling Vehicles	5
20. Adding Fuel or Engine Oil	5
21. Clamping or Blocking Nozzles	5
22. Fuel and Oil Nozzles Storage	5
23. Boarding or Alighting	5
24. Removing Radiator Cap	5
25. Pushing or Towing Buses	5
<b>Personal Protective Equipment</b>	
6-9	<b>6-9</b>
26. Personal Protective Equipment	6
27. Head Protection	6
28. Eye Protection	7
29. Face Protection	8
30. Respirators	8
31. Gloves	8
32. Safety Vests	9
33. Hair Nets	9
34. Hearing Protection	9
35. Vinyl and Rubber Aprons	9
36. Protective Rain Gear	9
37. Full-Body Harnesses, Lanyards and Life Lines	9
<b>Personal Appearance and Work Clothing</b>	
10	<b>10</b>
38. Clothing, Shoes, Jewelry	10

Rule	Page
<b>General Safety</b>	
10-12	<b>10-12</b>
39. Authority to Terminate Work	10
40. Notifying Supervisor or Manager	11
41. Situations Not Covered by Safety Rules	11
42. Conduct	11
43. Refuse and Debris	11
44. Keeping Work Area Clean	11
45. Ear Plug Phones or Earmuffs with Radios or Earphones	11
46. Sunglasses - Tinted Prescription Glasses	11
47. Being Alert	11
48. Walking Around Pit Area	11
49. Energized Power Cables	11
50. Getting Into and Out of a Pit	11
51. Authorization to Use Welding Equipment	12
52. Exhaust Ventilation Fans or Systems	12
53. Entering Substations	12
54. Entering and Exiting CTA Property	12
55. Suspended Loads	12
56. Walking on CTA Property	12
57. Walking Up or Down Stairs	12
58. Entering Tanks, Manholes, Vaults, Tunnels, Pits, etc.	12
59. Underground Sewer, Telephone, Water, Fuel and Electric Lines	12
60. Excavation Slope	12
61. Storing Materials at Excavation Sites	12
62. Shoring of Excavations	12
63. Proper Fill When Closing an Excavation	12
64. High Pressure Hose Lines	12
65. Handling Windows, Doors, Drawers, Covers, Lids, etc.	12
<b>Tools, Equipment and Machinery</b>	
13-16	<b>13-16</b>
66. Using Proper Tools	13
67. Inspecting Tools, Equipment, etc.	13
68. Authorization to Operate Power Tools, Equipment, etc.	13
69. Guards for Machinery	13
70. Adjustment of Machinery and Power Tools	13
71. Loose Clothing	13
72. Overhead Doors	13
73. Braking or Slowing Moving Machinery	13
74. Lock-Out Tags	13
75. Cutting Cable	13
76. Ladders	13
77. Scaffolds	15
78. Portable Scaffolding	15
79. Using Outriggers	15
80. Locking Wheels on Scaffolding	15
81. Guardrails	15
82. Electric Circuits	15
83. Workbench	15
84. Guards on Portable Power Saws	15

<b>Rule</b>		<b>Page</b>
85.	Ground Plugs	15
86.	Electrically-Powered Tools	15
87.	Gasoline-Powered Tools	15
88.	Compressed Gas Cylinders	15
89.	Oxygen and Fuel Gas Regulators	16
90.	Friction Lighter	16
91.	Compressed Air	16
92.	Tools	16
93.	Impact Sockets	16
94.	Servicing Power Tools	16
95.	Drill Press	16
96.	Cranes, Hoists, Lifting Devices	16
<b>Refrigerant Safety Precautions</b>		<b>17</b>
97.	Maintaining Refrigerant Systems	17
<b>Material Handling</b>		<b>17-18</b>
98.	Stacking Material	17
99.	Lifting Material	17
100.	Moving Heavy Objects	17
101.	Handling of Tools	17
102.	Carrying Materials	17
103.	Hot Solder or Compound	17
104.	Handling Compressed Gas Cylinders	18
105.	Loading and Hauling Material	18
<b>Safety on Rapid Transit Tracks and Yards</b>		<b>18-24</b>
106.	Rail Safety Training	18
107.	SOP Publications	18
108.	Mainline Tracks	18
109.	Working on or Near Rapid Transit Tracks or Yards	18
110.	Working under Slow Zone Protection	20
111.	Working Without a Flagman	20
112.	Jumping to Tracks	20
113.	Stirrups	20
114.	Footwalks	20
115.	Proper Equipment	20
116.	Giving Hand Signals	20
117.	Passing Persons on Track	20
	Hand, Flag, Lantern, Flashlight Signals	21-22
118.	Covering Third Rail	23
119.	Switch Point	23
120.	Track Carts	23
121.	Wheel Stops	23
122.	Drawbar	23
123.	Operating Rapid Transit Cars	23
124.	Blue Cards	23
125.	Hand Washing Rapid Transit Cars	24
126.	Removing 600 Volts on Right-Of-Way	24
	R7.1.1 Emergency Conditions	24
	R7.1.2 Non-Emergency Conditions	24
	R7.1.3 Person Requesting Power Off	24
127.	Restoring 600 VDC	24
	R7.2 Turning Power On	24

## Fire Safety

1. In case of fire, there are five (5) basic actions to take:  
1) sound the alarm immediately, 2) get help, 3) use available fire fighting equipment, 4) evacuate personnel and 5) protect CTA property:
    - (a) Any employee who discovers a fire has the responsibility of alerting the immediate supervisor or manager and calling the Fire Department (911) immediately.
- NOTE: See Page 1 of this book for telephone numbers to call in case of fire.
- (b) Sound the local fire alarm to alert other employees or personnel in that area.
  - (c) Call the CTA Control Center, (312) 432-8030, or CTA extension 28030 for Rail Vehicle and Facility Maintenance locations, or CTA extension 28040 for bus or automotive maintenance locations.
  - (d) Notify System Safety through Control Center.
2. Smoking on CTA property is prohibited.  
  
NOTE: The CTA Board enacted an ordinance (Executive Order #98-06) declaring that the CTA is a smoke-free workplace.
  3. When using heating, cutting and welding equipment: a fellow employee shall stand by with a proper fire extinguisher unless otherwise instructed by the supervisor or manager.
  4. Employees shall keep fire lanes, aisles, doors, Fire Department water connections, sprinkler heads and fire fighting equipment free of obstacles at all times.
  5. Employees shall not use fire hoses for any purpose other than for fighting fires or for fire drills.
  6. Whenever employees use solvents, flammable liquids, heating-cutting and welding equipment, provisions for adequate ventilation shall be made to prevent fire, explosion and health hazards. Use proper personal protective equipment as required.
  7. Flammable materials, including gasoline, shall not be stored in any unventilated areas, including subways.
  8. Employee shall read and understand all warning labels on hazardous material containers prior to use. Employees shall adhere to all safety precautions contained within labels and respective Material Safety Data Sheet (MSDS) of all hazardous and flammable materials.

## Operation and Servicing of Vehicles

9. Only authorized personnel shall be allowed to drive CTA vehicles. All employees driving CTA vehicles on or off CTA property shall comply with the State Rules of the Road, which include having a valid driver's license with proper classification for the type of vehicle driven according to the Executive Order 2001-02. To operate CTA buses, a "CDL" license is required.
  10. Only authorized operators shall be permitted to operate industrial trucks and they shall be given a set of safety rules at the time of certification.
  11. Employees are not permitted to ride industrial trucks as passengers unless the trucks are specifically designed for passengers. Furthermore, operators of industrial trucks shall not permit employees to ride trucks unless the trucks are specifically designed for passengers.
  12. Reckless or unsafe operation of CTA vehicles which include, but is not limited to buses, automobiles, trucks, vans and industrial trucks, such as power sweepers, high lifts, fork lifts, personnel carriers and power operated cars, is not permitted. This rule also applies to private vehicles operated on CTA property.
  13. Driving in excess of 6 MPH is not permitted on CTA property, unless otherwise posted or directed by supervisory personnel for testing purposes. All CTA and private vehicles are affected by this rule.
  14. Employee shall inspect an industrial truck before using it and immediately report any defect or malfunctioning equipment to their immediate supervisor.
  15. Industrial trucks shall not be used as elevators unless the trucks are specifically designed so that the employee being lifted can shut off power to the truck. The truck shall be equipped with an ANSI approved platform or aerial basket.
  16. Before alighting from rider-type industrial trucks, the vehicle shall be taken out of gear and the parking brake applied.
  17. Employees shall observe the following rules and instructions when operating buses, vans, trucks, industrial trucks, trackmobiles and snow vehicles.
    - (a) Before starting an engine:
      1. Check around and under the vehicle to make sure that no individual is working on it.
      2. Adjust the seat and mirrors.
      3. Make sure the parking brake is set and the shift selector is in park.
      4. Blow the horn.
- NOTE: No attempt shall be made to start vehicles that are tagged "DO NOT START ENGINE".

- (b) After starting a bus engine, do not move the bus until the air pressure has reached at least 100 psi as indicated by the air pressure gauge, or by the low air indicator light and buzzer alarm going off.

A bus may then be moved in the following manner:

1. Before driving off a pit or hoist position (be sure the hoist is fully depressed), check for obstructions or workers around or under the bus.
  2. Depress the brake pedal.
  3. Place the shift selector in desired position.
  4. Release the parking brake.
  5. Release the brake pedal and drive with restricted speed of 6 MPH (unless otherwise posted).
- (c) Employees operating CTA vehicles shall wear safety belts.
- (d) Make a complete stop at the following locations:
1. STOP before entering or leaving a garage or shop building.
  2. STOP before entering fueling lanes; one bus length (40') from fuel island entrance.
  3. STOP before passing any door opening or crossing lanes.
  4. STOP before entering or leaving a wash rack.
  5. STOP at all STOP signs.
  6. STOP before entering a vault area.
  7. STOP ONE (1) bus length behind an employee working at rear of a bus.
- (e) Take the following precautions when backing vehicles:
1. Before backing up, circle the vehicle to make sure personnel, equipment and tools are clear.
  2. Turn off interior lights.
  3. Turn on distress flashers.
  4. Back up at idle speed with the foot positioned lightly on the brake pedal (foot off the accelerator pedal).
  5. Blow the horn intermittently when backing a vehicle in a maintenance area.

NOTE: If it is possible, ask a co-worker for assistance to spot you as you back up the vehicle.

- (f) Anytime an employee releases the brake locking device on a bus, the wheels must be chocked, and a sticker which states "BRAKES RELEASED: DO NOT OPERATE VEHICLE" must be affixed to the windshield. The sticker should be placed in the center of the driver's windshield with this instruction facing inward. The sticker should be removed after the brake adjustment has been made by the employee who placed it on the windshield.
- (g) Before leaving the operator's seat, the shift selector shall be placed in park and the parking brake shall be applied. If the vehicle does not have a park position, the shift selector shall be placed in neutral and the parking brake applied.

NOTE: Maximum restricted speed, mandatory complete STOPS and backing procedures are the same for all vehicles.

## 18. Spill Control

- (a) Maintenance manager or a qualified designee shall be present during fuel delivery by the supplier.
- (b) In case of a hazardous material spill, inform the emergency coordinator or first responder at the site and follow the procedures included in the latest revision of Safety Bulletin #5001 "Hazardous Material Spill Control Procedures."

## 19. Fueling Vehicles

- (a) When fueling vehicles equipped with an open fueling system, the fuel nozzle shall be attended.
- (b) When fueling vehicles equipped with a closed fueling system, the closed fuel nozzle shall not be disconnected from the vehicle until all pressure has been released from the system.
- (c) After fueling a vehicle, the fuel nozzle shall be removed and secured in its proper storage location prior to moving the vehicle.

NOTE: Empty cylinders for starting fluid must be stored in a designated container to be returned to the supplier.

20. A vehicle engine shall not be operating when adding any fuel or engine oil to the vehicle.
21. Employees shall not clamp or block open fuel or oil nozzles.
22. Employees shall keep fuel and oil nozzles in proper storage locations and off working surfaces.
23. Employees shall not board or alight from any moving vehicle.
24. Before removing a radiator cap, the following precautions shall be adhered to:
  - (a) Wear gloves selected in compliance with latest revision of the Safety Equipment Catalog.
  - (b) Relieve the cooling system pressure by depressing the relief valve until all the pressure is exhausted.
  - (c) Stand to the side of the radiator cap or surge tank cap.
  - (d) Turn the cap slowly or pull snap catch on the cap to relieve pressure or steam.
  - (e) After pressure has been relieved, remove the cap.
25. Employees shall not push or tow a disabled bus with another bus, or with an unauthorized vehicle. Only proper equipment shall be used when pushing or towing disabled equipment.

## **Personal Protective Equipment (PPE)**

26. Employees shall wear proper personal protective equipment when performing a job requiring its use. Personal protective equipment must be selected based on a hazard assessment of the job. All required PPE worn by employees must be approved and issued by CTA. This equipment shall not be altered or abused in any way.
27. **Head Protection** - Head protection shall be worn in designated compliance area and whenever necessary.
- (a) Protective bumpcaps shall be worn whenever there is a possibility of striking the head against an object.  
Typical examples of when protective bumpcaps shall be worn include, but are not limited to, the following:
1. Performing repair and maintenance work under rail vehicles, rail track equipment, buses and other CTA vehicles.
  2. As instructed by location supervisor or manager.
  3. In areas where it is posted that head protection must be worn.
  4. While working in construction areas.
- (b) Protective hardhats shall be worn whenever there is a possibility of being struck by falling objects.  
Typical examples of when protective hardhats shall be worn include, but are not limited to, the following:
1. While working or walking beneath an overhead structure.
  2. All personnel performing maintenance or inspection on or under structures, in subways and on all right-of-ways.
  3. Wherever it is posted or otherwise instructed that head protection must be worn.
  4. While working in construction areas.
- (c) In addition, employees who work near or around exposed electrical conductors shall wear protective helmets that are specifically designed to protect the head from electrical shock.
- (d) All employees are to wear appropriate head protection when entering designated compliance areas within vehicle maintenance locations. Protective helmets shall be worn at all times by vendors, manufacturer's representatives, visitors and others entering designated compliance area within CTA vehicle maintenance locations.
- Proper use of protective helmets:
1. The suspension system which supports the shell of the helmet shall be intact and undamaged. Helmets with cracks or severe dents are not acceptable and must be replaced.
  2. Employees shall not wear anything underneath the protective helmet which will impair his or her vision and hinder the proper fit of the equipment.

28. **Eye Protection** - Eye protection devices shall be worn whenever there is a possibility of eye injury and whenever it is posted that eye protection must be worn.
- NOTE: Eye protection shall be worn at all times by vendors manufacturer's representatives, visitors and other employees entering designated compliance area within CTA vehicle maintenance shops.
- (a) **Safety glasses or safety spectacles** with side shields provide eye protection against flying objects or particles. Typical examples of when safety glasses or safety spectacles shall be worn include, but are not limited to, the following:
1. Operating rivet guns, cutting rivets, and using power tools and spike mauls.
  2. Whenever working under rail vehicles, rail track equipment, buses and other CTA vehicles.
  3. Wherever it is posted to wear safety glasses.
  4. While working in construction areas.
- NOTE: If an employee wears corrective lenses, he or she should consult his supervisor or manager for information on how he or she may obtain prescription safety glasses at a nominal cost.
- (b) **Safety goggles**, including chemical splash goggles, shall be worn when additional eye protection is required. Typical examples of when safety goggles shall be worn include, but are not limited to, the following:
1. Changing storage batteries and working at storage battery areas.
  2. Working in industrial areas, handling refrigerant gas, making 3rd rail insulators and dismantling scaffolding.
  3. Operating pneumatic tools, grinding, using drills, using power saws and breaking concrete.
  4. Operating power spray washing, cleaning of structures, cleaning overhead, spraying insecticides, spray painting and whenever subject to splashing of cleaning solutions including the operation of parts cleaning tanks and graffiti removal.
- NOTE: Eye wash station areas shall be free of obstacles and functioning at all times.
- (c) **Welding goggles or helmets** properly rated shall be worn when using oxygen fuel gas, welding, cutting and heating equipment.
- (d) **Filter glass** with the proper shade number shall be installed in the employee's welding helmet when performing any heliarc or arc welding. A clear lens shall cover the filter glass to protect the filter plate.
- NOTE: Consult the CTA Safety Equipment Catalog for the proper shade number of the lens to use with welding goggles and welding helmets.
- (e) Sunglasses and tinted prescription glasses may be worn outside during sunny days and for snow glare.
- NOTE: If safety glasses are required, wear only tinted safety glasses.

29. **Face Protection** - Employees shall wear face protection devices whenever there is a possibility of face injury and whenever it is posted that face protection must be worn.
- (a) **Face shields** shall be worn over suitable basic eye protection devices - (Safety glasses, spectacles or goggles). Typical examples of when face shields shall be worn include, but are not limited to the following: woodworking, metal machining, buffing, polishing, wire brushing or grinding operations when flying particles may strike the face. In addition, face shields shall be worn when performing chassis and motor washing, when using high pressure cleaning equipment; when splicing cable and using hot compound; during overhead cleaning with chemicals; and when drilling a hole to release hot gas and pressure from a spliced cable.
  - (b) **Welding helmets** shall be worn when using heliarc or arc welding equipment.
  - (c) **Special fiberglass shields** with multiple windows shall be worn by ironworkers when busting rivets.
30. **Respirators** - Employees shall wear respirators with the necessary air purifying cartridges based on the airborne chemical hazard to which they are exposed at their workplace. The following job tasks require respirators: sanding of fiberglass materials, pesticide application, rail car motor blowing, working with asbestos, lead paint removal, abrasive blasting, cleaning and spray painting.
- NOTE: a) In addition, designated emergency responders responding to chemical spills may require respirators.
- b) Respirators shall be used, selected, issued and maintained according to the latest revision of Safety Bulletin #2007 for "Respirator Use, Selection, Fitting, Issuance and Maintenance."
31. **Gloves** – Gloves shall be chosen and required to be worn based on the hazard assessment to which the employee is exposed. Employees shall wear gloves to protect the hands against hazards including skin absorption of a harmful substance, severe cuts or lacerations, severe abrasions, punctures, chemical burns and harmful temperatures. Employees shall wear gloves when performing the following duties:
- (a) Removing a radiator cap or surge tank cap from a vehicle cooling system.
  - (b) Performing general cleaning of vehicles.
  - (c) Servicing refrigeration systems.
  - (d) Using heating, cutting or welding equipment; gloves shall be selected according to the latest revision of the CTA Safety and Fire Equipment Catalog.
  - (e) Handling creosote treated material.
  - (f) Greasing machinery.

- (g) Working with wet-cell batteries, acids, chemicals, solvents or other irritants.
  - (h) Handling trash.
  - (i) Using insecticides.
  - (j) Lineman activities involving electrical hazards. Gloves shall be in compliance with the latest revision of the safety and Fire Equipment Catalog.
  - (k) Bloodborne pathogen cleanup - only authorized personnel equipped with proper equipment shall clean up blood-borne pathogen materials in accordance with the latest revision of Safety Bulletin #6003 for "Procedure for Cleanup of Blood and Other Potentially Infectious Materials".
  - (l) Vibrating tools - use anti-vibration gloves as liners beneath protective gloves.
32. **Safety Vests** - Employees shall wear safety vests during day and night hours and remain alert whenever there is a possibility of being struck by a moving vehicle. Typical examples of when safety vests shall be worn include, but are not limited to the following: working in rail yards and garage yards; working on rapid transit rights-of-way, structures, subways; servicing buses; road testing buses; making street calls and working in streets; etc.
- (a) Vests shall not be altered in any way.
    - 1. Unauthorized writing on the outside of the vest or on the stripes is not allowed.
    - 2. Patches, stickers or other attachments are not allowed on the vest.
  - (b) Book bags, backpacks, knapsacks, or other items that may reduce visibility to operators, may not be worn over the vest.
33. **Hair Nets** - Employees shall wear hair nets when there is a danger of fire or hair entanglement in moving machinery or equipment.
34. **Hearing Protection** - in areas where required, employees shall wear approved hearing protection.
35. Employees shall wear vinyl or rubber **aprons** when working with either caustics or corrosives, power spray washing of parts, vehicles or structures, or when adding fluid to any storage battery.
36. **Protective Rain Gear** - such as jackets, pants, boots and hats, shall be worn while cleaning canopies, washing walls in rapid transit stations, washing chassis and motors, or washing the exterior of rail cars and buses.
37. **Full-Body Harnesses, Lanyards and Life Lines** - Employees working at a height of 6 feet or more must wear properly secured fall protection (according to the latest revision of Fall Protection Safety Bulletin #2011), including, but not limited to the following:

- (a) Full-body harness attached to a life line or personal fall arrest system when working on suspension scaffolding.
- (b) Full-body harness attached to a lanyard when performing an interior window wash over stairwells and escalators in rapid transit stations away from moving vehicles.
- (c) Full-body harness attached to a lanyard when working in aerial baskets.

### **Personal Appearance and Work Clothing**

38. The following rules apply to employees working on the right-of-way, shops, garages, terminals and other field locations:
- (a) Employees exposed to momentary electric arc must wear natural fiber clothing (wool, cotton), as synthetic clothes are highly combustible.
  - (b) Employees using welding, heating and cutting equipment shall wear natural fiber long-sleeved clothing.
  - (c) Employees are not allowed to work in shorts or cut off pants except when permitted by a work clothing or uniform bulletin.
  - (d) It is the employee's responsibility to have suitable work shoes with defined heel and nonslip soles. Employee shall not be permitted to work on CTA property when wearing athletic shoes, sandals, moccasins, open-toed shoes or shoes with heels over 1" high.
  - (e) Employees shall wear suitable work clothing, which shall include a shirt or T-shirt. Sleeveless shirts and halter tops are not permitted.
  - (f) When using oxygen fuel gas or arc welding equipment, employees shall not wear pants with cuffs.
  - (g) Employees shall not wear belts with sashes or pendants hanging from them.
  - (h) Bracelets, rings and hanging rings (e.g., ear, nose, mouth, etc.) shall not be worn.
  - (i) Neck jewelry, such as pendants, beads and chains shall not be worn outside the employee's clothing.
  - (j) Loose, ill-fitting, unfastened or unbuttoned clothing shall not be worn.
  - (k) When handling acid, caustic, toxic chemicals, solvent, or materials treated with creosote or other irritant:
    1. Review the Material Safety Data Sheet.
    2. Have all body parts covered.
    3. Avoid spilling and remain clear of a spillage.
    4. Avoid touching any part of the body while handling or exposed to the irritant.

### **General Safety**

39. When any representative of the CTA System Safety Department determines that any site on CTA property is unsafe, or any employee of the CTA, its contractors or subcontractors have failed to take prompt and decisive action to correct safety deficiencies identified at a work or other CTA site, the

representative of the System Safety Department shall have the authority to direct closure of the site and/or terminate work by employees, contractors or subcontractors and secure the site. The closure of the site and/or termination of the work shall remain in effect until all safety deficiencies have been corrected to the satisfaction of the representative of the System Safety Department and he or she authorizes the reopening of the site.

40. Employees are responsible to follow all safety rules, procedures, policies and adhere to safe work practices to avoid injuries. Prompt notification of the employee's supervisor or manager shall occur for any of the following reasons:
- (a) An unsafe condition.
  - (b) Any tool, machine or piece of equipment not in good working order.
  - (c) Any personal injury, no matter how minor.
  - (d) Any unsafe practice.
41. Employees shall ask their immediate supervisor or manager for direction regarding any situation not covered by CTA rules, SOPs, special orders, bulletins or other instructions.
42. Employees' conduct shall be free from scuffling, practical jokes or horseplay while on duty or on CTA property.
43. Refuse and debris shall be placed in proper containers.
- NOTE: The employee shall clean up his or her area before starting and ending the work shift.
44. Employees shall immediately clean up any spilled oil, grease or other fluid in their working area. Immediately notify the area manager and manager of Environmental Affairs of any spill that may cause a safety, health, fire or environmental hazard.
45. Ear phones or earmuffs equipped with radios or other electronic devices shall not be worn by CTA employees while on duty.
- NOTE: Use of cellular phones or any other unauthorized appliances and devices for non-CTA business (personal business) including text messaging is prohibited while performing job duties. Use of the telephone is permitted during employee break and lunch periods.
46. Sunglasses, sun-sensitive lenses (photochromic lenses) or tinted prescription glasses shall not be worn indoors or outside during hours of darkness.
47. Employees shall be alert at all times when working and when walking from one area to another; watch for moving vehicles.
48. When going from one side of a pit to the other, employees shall walk around or use the crosswalk; jumping over pits is prohibited.
49. While working near energized power cables, employees shall avoid contact with the cables to avoid creating an unintended electrical ground.
50. Employees shall use steps or ladders to get into or out of pits; jumping down or climbing out is prohibited.

51. Employees using heating, cutting or welding equipment are required to have authorization to do so.
52. Employees are not permitted to turn off exhaust ventilation fans or systems without authorization to do so.
53. Only authorized employees are allowed to enter substations. Control Center must be notified prior to any entry into a substation.
54. Employees shall enter and exit CTA property only at approved entrances and exits and shall sign themselves in and out as necessary.
55. Employees shall not walk or stand under suspended loads. Keep clear of hoisting equipment boom or suspended loads on hoisting equipment.
56. Employees shall walk, not run.
57. When walking up or down stairs:
  - (a) Keep to the right.
  - (b) Use handrails when provided.
  - (c) Use each step.
58. Employees shall follow the CTA Confined Space Entry Program. Before entering tanks, manholes, vaults, tunnels, pits or other confined spaces, employees shall check for oxygen deficiency, toxic gases and flammable vapors and gases. An employee entering a confined space must be attended by a trained competent person who will not enter the confined space.
59. Prior to opening an excavation, employees shall determine the location of existing underground sewers, telephone, water, fuel and electric lines. Avoid damaging these lines while digging. If necessary, the immediate supervisor shall contact the proper utility company to determine the exact locations of utility lines.  
NOTE: Prior to digging, alert the appropriate parties by calling Julie or Digger.
60. When opening an excavation, the slope ratio should be minimum 1½' horizontal for every 1' vertical.
61. In excavations where employees are required to enter, all material shall be stored and secured at a minimum of two (2) feet from the edge of the excavation.
62. Employees shall not enter excavations more than four (4) feet deep until the walls or faces are properly shored or sloped.
63. Employees shall use only the proper fill when closing an excavation so as not to damage lines.
64. Employees shall handle high-pressure hose lines with a firm and steady grip to prevent the hose from whipping around and causing an injury.
65. When handling windows, doors, drawers, covers, lids or other hinged devices, use the provided handles or knobs. Be certain that the device is properly secured before placing any portion of your body in the opening. Upon completion, close all devices carefully and avoid pinch points. Do not open more than one drawer of a tool or filing cabinet at a time.

### Tools, Equipment and Machinery

66. The proper tools shall be used in the performance of the job.
67. Inspect all tools, equipment, machines and accessories prior to use. Document defects to the immediate supervisor or manager. Damaged or defective tools, equipment, machines, accessories or tools must be removed from service.
68. Only authorized and trained employees shall be permitted to operate power tools, power equipment or machinery.
69. Employees are not permitted to remove guards or modify machinery and power tools. It is imperative that guards must be in place during operation. Defects are to be reported to superiors.
70. Employees shall keep machinery and power tools properly adjusted as required. This includes tool rests for grinders. Loose jewelry should be removed.
71. Clothes shall be tucked in at all times to prevent them from being caught by moving machinery and objects.
72. Employees shall take the following precautions when moving through overhead doors:
  - (a) Ensure proper clearance.
  - (b) Before closing the door, make sure all personnel and equipment are clear.
  - (c) Remain at the door control until it is completely closed.
  - (d) Do not drive through an overhead door while it is closing or opening.
73. Employees shall not brake or slow down moving machinery by foot, by hand or with any makeshift devices.
74. Employees shall use warning tags and lockout devices on the energy source control when machinery or equipment is being repaired. The employee who placed the tag/lock is the only person who may remove it.  
NOTE: Employees shall follow the latest revision of OSHA Lockout/Tagout Procedures.
75. Employees shall not cut cables, rails or other objects which are under tension or compression until precautions have been taken to guard against backlash.
76. **Ladders** - Employees shall use a ladder for climbing (the use of barrels, boxes, kegs, chairs or any other makeshift equipment is not permitted). When using a ladder, the following precautions shall be observed:
  - (a) Inspect ladders prior to use. Make sure the rungs and side rails are in good condition.
  - (b) Place the ladder against a solid object, at the proper and safe angle and on a secure footing.

1. The horizontal distance from the base of the ladder to the vertical plane of the support should be approximately 1/4 the ladder length between supports. (For example: place a 12- foot ladder so that the bottom is 3 feet away from the object against which the top is resting.)
  2. Do not place a ladder in front of a door which opens toward the ladder, unless the door is locked, blocked or otherwise guarded.
  3. Do not place a ladder against a window pane or sash. Securely fasten a board (not with nails), across the top of the ladder to give a bearing at each side of the window. On wide windows with metal sashes, the bearing may be the mullion or between window jamba.
  4. When using a ladder for gaining access to higher places, securely lash or otherwise fasten the ladder to a permanently secured object to prevent it from slipping.
  5. In areas where a ladder is subject to vibration, the ladder must be secured properly and checked frequently by employees to ensure its stability.
  6. Use safety shoes on portable, non-self-supporting ladders.
  7. When using a step ladder in an open area, the legs must be extended fully and locked in place.
  8. The ladder shall extend at least 3 feet above the alighting surface.
- (c) Always face the ladder when ascending or descending. When working on a ladder, always face the ladder.
  - (d) An employee shall not climb higher than the third rung from the top on straight or extension ladders or the second tread from the top on step ladders.
  - (e) Ladders equipped with safety devices must have them in good condition.
  - (f) Employees shall not overextend themselves beyond the side rail of the ladder.
  - (g) Employees shall not exert excessive force when working on a ladder.
  - (h) When ascending or descending a ladder, hold on with both hands. If material must be handled, raise or lower it with a rope, before ascending or descending.
  - (i) Never allow more than one employee on a ladder at any one time, unless you are employing a special two man unit.
  - (j) Never use a ladder in the horizontal position.
  - (k) Never extend the ladder's range by setting it on blocks or other supports.
  - (l) Never adjust extension ladders at the top or while someone is standing on them.
  - (m) Do not splice ladders together.
  - (n) Portable metal ladders shall not be used where they may contact electrical circuits. Only use wood or fiberglass ladders.

- (o) Damaged ladders shall not be used and must be reported to the supervisor.

NOTE: Ladders are considered an egress, not a working platform; if used as a working platform, fall protection is required.

77. **Scaffolds** – Scaffolds need to be erected by a trained, competent person. Inspect scaffold devices prior to use and document inspection to supervisor. Tubular scaffolding shall be rigid, plumb and square with toe boards and guard rails attached. Scaffolds shall be secured to a structure or building at intervals not to exceed 26 feet vertically and at intervals not to exceed 30 feet horizontally.

NOTE: During winds of 20 mph or greater, employees shall not work on scaffolding, except in emergency situations and while wearing proper fall protection.

- (a) Bus air conditioning maintenance fall protection scaffold shall be secured by locking all wheels.
  - (b) Bent, dented or otherwise damaged scaffolds shall not be used and should be reported to the supervisor.
  - (c) Do not attempt to extend the height of a scaffold by adding boards, boxes, etc.
78. Employees shall not be permitted to ride portable scaffolding while it is being moved.
  79. Employees shall use outriggers to support portable scaffolding when the height exceeds 4 times the minimum base dimension and when using telescoping portable ladders.
  80. Employees shall lock wheels before climbing on or working off any movable scaffold.
  81. Before starting to work in a manhole, trench, hole, etc., employees shall place a protective guardrail or other device around the opening.
  82. Employees shall consider all electrical circuits to be live circuits at all times.
  83. Employees shall keep workbenches in an orderly manner in order to prevent injuries and breakage.
  84. The upper and lower guards of portable power-operated saws shall be in place when the saw is in use.
  85. Employees shall not remove or alter the ground prong on electrical plugs.
  86. Electrically-powered tools shall be either grounded or an approved double insulated type.
  87. Gasoline powered tools shall not be used or stored in unventilated areas including all subways.
  88. Compressed gas cylinders shall be closed and pressure relieved from the regulator when work is finished or cylinders relocated.

89. Oxygen and fuel gas regulators shall have the proper check valve placed in line between the regulator and hose.
90. Employees shall use only an approved friction lighter for lighting the torch on oxygen-fuel gas equipment.
91. Employees are not permitted to use compressed air unless the following safety precautions are observed:
  - (a) Before opening the air valve, be sure the coupling is tight and the hose is in good condition (with no crack or cut).
  - (b) Compressed air shall not be used for cleaning purposes except where reduced to less than 30 p.s.i. and only used with effective chip guarding and personal protective equipment.
  - (c) When opening the air valve, hold the discharge end of the hose to prevent whipping.
  - (d) Wear eye and other protective equipment required for the particular job.
  - (e) When changing pneumatic tools, use the supply valve to shut off the air; do not kink the hose.
  - (f) Use compressed air only for its intended purpose.  
Do not use compressed air for the following reasons:
    1. To blow dust off clothes or clean work area.
    2. To dry off hands or body.
    3. To play practical jokes.
  - (g) Compressed air shall not be discharged from hoses without standard pressure reduction or air discharge nozzles attached.
92. Employees shall not leave their tools on the floor when not in use. When finished using a tool, it shall be returned to its proper place.
93. Only impact type sockets shall be used with impact wrenches. All impact wrench shanks, extensions and adaptors must be equipped with locking devices. On square drives, 3/4" and 1" sizes, a retainer pin and a rubber retaining ring must be used on sockets and extensions.
94. Tools shall be disconnected from the power source when not in use, before servicing and when changing attachments.
95. When using a drill press, material being drilled shall be secured with a drill press vise or other securing equipment.
96. Only trained, authorized and qualified operators shall be permitted to operate cranes, hoists or lifting devices. Operators of these devices shall be given a set of operating instructions and safety rules related to these devices' operation. Certification may be required for specific devices.

### **Refrigerant Safety Precautions**

97. The following precautions shall be taken when maintaining and servicing refrigerant systems:
 

NOTE: Only authorized and certified HVAC personnel shall be allowed to handle refrigerant.

  - (a) Safety chemical splash goggles shall be worn.
  - (b) 12 inch minimum gauntlet, Neoprene coated super-flexible gloves shall be worn.
  - (c) Open flames and high temperatures on charged refrigerant systems are prohibited.
  - (d) Refrigerant cylinders shall be capped when not in use.
  - (e) Cylinders shall be securely positioned at all times.
  - (f) When refrigerant cylinders are empty they must be purged (recovered) and properly disposed.

NOTE: Apply a tag or label to the discharged container that reads: "Empty - Refrigerant Removed." Dispose of the cylinder in regular trash or recycle as scrap metal. Drill a hole into the cylinder if it is to be recycled.

### **Material Handling**

98. Employees shall observe the following precautions when piling or stacking material:
  - (a) Use proper blockings, spacers or supports.
  - (b) Keep at a safe height.
99. When lifting heavy objects, employees shall use care and proper lifting techniques to avoid any back injury.  
Employees shall lift heavy objects in the following manner:
  - (a) Bend knees.
  - (b) Keep back straight.
  - (c) Push upward with legs.
100. Employees shall obtain help when moving objects which are too heavy for them to lift or push.
101. Employees shall not throw tools, parts or equipment. Tools, parts or equipment shall be handed to other employees or a material bag or a similar device shall be used to raise or lower the tools, parts or equipment.
102. Employees shall not carry material either by hand or by industrial truck in such a manner that the employee's vision is obscured or obstructed.
103. Hot solder or compound shall not be lowered or raised into or from a manhole or vault until all employees in a manhole or vault have been warned and the employee on top has been instructed from below to proceed.

104. Employees handling compressed gas cylinders shall:

- (a) Not throw, bump, jolt or drag them.
- (b) Not handle cylinders without a protective cap over the valve on cylinders that require a valve cover.
- (c) Keep cylinders away from heat sources, elevators, gangways, stairwells and other places where they can be knocked down or damaged.
- (d) Not use cylinders as rollers.
- (e) Secure cylinders from falling, e.g., by chain, in an upright position to a permanent structure.

NOTE: Gas cylinders (oxygen and acetylene) shall be stored separately at least 20 feet apart and the protective caps over cylinder valves shall be installed.

105. When loading or hauling material on a truck, trailer or with a flat car:

- (a) Make sure the load is secure.
- (b) Block all material.
- (c) Place a red flag on end of materials extending beyond the rear of such equipment.

#### **Safety On Rapid Transit Tracks and Yards**

106. Non-operating CTA Personnel assigned to work on, over, under or near the CTA rail right-of-way must successfully complete the CTA Rail Safety Training Course. The Rail Safety Tour Identification Card must be renewed every three years.

107. Employees working on the rail system must comply with all the Rail System Standard Operating Procedure (SOP) publications and CTA Safety Bulletin #3026, CTA Employees on Rail System Right-of-Way.

108. Mainline tracks are under the supervision of the Control Center. Any activity on mainline tracks (e.g., repairs, maintenance, or taking tracks out of service) shall not be performed without prior authorization of the Control Center or rail service bulletin.

109. Employees shall wear the approved safety vest and safety equipment and observe the following precautions when working on or near rapid transit tracks or yards:

- (a) Work at track level or adjacent to a mainline track, shall be performed outside of "rush hours," except in emergencies (Rush hours are from Monday through Friday from 0500 to 0900, and 1500 to 1900 hours, except holidays).
- (b) Before entering or working adjacent to the right-of-way, an employee shall notify, via radio, the rail controller for that specific route.
- (c) Stop and look in both directions before crossing a track. Remain in clear and unobstructed view facing

the approaching train.

- (d) Expect trains to operate in either direction, on any track, at any time. If possible, walk against the normal flow of traffic.
- (e) Step over rails, never step on any rail.
- (f) Employees are not allowed to wear steel toed shoes when working on or near rapid transit right-of-way tracks or in the yards.
- (g) Do not allow any part of the body, any article of clothing or tools to contact the third rail or trolley blocks of rapid transit cars.
- (h) Employees are not allowed to wear contact lenses when working on or near rapid transit right-of-way tracks or in the yards.
- (i) Consider the third rail to be energized at all times.
- (j) When a track or other area is not clear, signal the rapid transit operator to STOP.
- (k) Use footwalk, unless work requires you to walk between tracks.
- (l) Watch for moving switch points.
- (m) On the approach of a train, employees shall signal the rapid transit operator well in advance (See Safety Rule 116 for proper signals). When there are other persons in the area, they shall be alerted to the presence of the train.
- (n) If a flagman is present, employees shall stop work as soon as possible after flagman's train approaching signal is given. Only one person shall be designated to give the proceed signal to the flagman after all equipment and employees are in the clear.

NOTE: In the absence of the assigned flagman, the foreman/roadmaster shall be responsible for the proper protection of persons and equipment along the right-of-way.

- (o) In the absence of a flagman, one trained, designated person shall give the proper signal for the train to proceed when all equipment and employees are in the clear.
- (p) Do not allow two trains to pass at the same time, while persons are between tracks (Trains bound for the Loop should be given the right-of-way.)
- (q) Stand and face an approaching train; remain stationary until the entire train has passed.
- (r) Report rapid transit operator's violations as soon as possible.
- (s) Stand clear of the car overhang on curves.

- (t) Stand clear of areas of no clearance.
- (u) Vests shall not be altered in any way.
  1. Unauthorized writing on the outside of the vest or on the stripes is not allowed.
  2. Patches, stickers or other attachments are not allowed on the vest.
- (v) Book bags, back packs, knapsacks, or other items that may reduce the visibility to operators, may not be worn over the vest.

**NOTE:** Worker Ahead (WA) system shall be activated when entering the tracks if the work area is equipped with a WA system, and deactivated when leaving the area so protected.

- 110. Employees who are working in a group of three (3) or more shall work within a protected area, including a portable strobe light placed ahead of the work area, as per latest revision of the Standard Operating Procedure (SOP) for Slow Zones.
- 111. Employees working on or adjacent to rapid transit tracks without the protection of a flagman, between dusk and dawn and at all hours in the subway, shall wear an approved type portable flashing yellow warning light or flashing helmet light while operating in a defined work area.
- 112. Employees shall not jump from a station platform, footwalk or rapid transit car to track level.
- 113. Employees shall not ride on the stirrups of rapid transit cars or work trains, outside of doors or between cars.
- 114. Employees shall not run on footwalk or at track level.
- 115. Employees whose duties require them to give signals must provide themselves with the proper equipment, in good order, ready for immediate use.
- 116. Hand, flag, lantern, flashlight signals shall be given in accordance with the Rail System Rule Book, Rule **R8.25**:
  - R8.25.1** Employee must face approaching trains, place themselves, their tools and equipment in safe position, and then signal the operator to proceed. Remain standing until the entire train has passed.
  - R8.25.2** Employees must not cause a train to be stopped unnecessarily.
- 117. **R8.26.1** Passing Persons On Tracks Upon receipt of a proceed signal from authorized persons near the track, operators may proceed at 6 mph, unless otherwise instructed, until the entire train has passed.

## Flashlight Signals

To be used after dark or in the subway flashlight signals with their respective indications, are illustrated in the following diagrams:

### Flashlight

**STOP or REMAIN STANDING**-Swung horizontally at right angle to the track.



**REDUCE SPEED**  
Held horizontally at arm's length.  
*Note: During periods of darkness and in the subway, motion is necessary to ensure recognition.*



**PROCEED** - Raised and lowered vertically.



**BACK** - Swung vertically in a circle at half-arm's length at right angle to the track.



## Hand signals

The hand or a flag moved the same as the flashlight gives the same indication.

ASPECT: Swung horizontally across the body.

INDICATION: STOP OR REMAIN STANDING



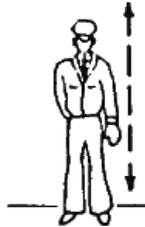
ASPECT: Held horizontally, at arms length, when car is moving.

INDICATION: REDUCE SPEED.



ASPECT: Raised and lowered vertically, in the direction of the Train Operator.

INDICATION: PROCEED.



ASPECT: Swung vertically in a circle at half arm's length across the body, below the shoulder.

INDICATION: BACK.



118. Employees shall cover the third rail with an approved cover when using tools and metal objects while working adjacent to the energized third rail.
119. Employees shall not place any part of their body within the moving portion of a switch point.
120. Employees shall not ride on track carts.
121. Wheel stops (derailers) shall be in the up position at all times, except when a car or cars are being moved in or out of a building on that track.

NOTE: Wheel chocks should be used if a train is on an incline for an undetermined length of time.

122. Employees shall not step on the drawbar in order to board or alight from rapid transit cars.
123. Maintenance employees are not permitted to operate rapid transit trains except in the following circumstances:
  - (a) In case of fire or other emergency, any trained employee may move a car or train to prevent damage to it.
  - (b) For test purposes (within yard limit), only maintenance manager, supervisor, instructor and car repairer who have been qualified by the Training and Instruction Department must operate test trains.
  - (c) Rail cars shall not be moved in yard except when authorized by yardmaster, yard leader or supervisor III.

NOTE: Rail cars shall not be moved until the employees working on or around the car or cars are notified that the car or cars are to be moved. Employees in the pit under the car or cars to be moved shall exit the pit. The horn shall be sounded before moving the car or cars.

124. When a third rail switch is opened to de-energize 600 VDC traction power, the employee opening the switch shall place a BLUE HOLD CARD, identified with his or her name or number, at the open switch. The only person permitted to close the switch is the employee who placed the BLUE HOLD CARD on that switch.

NOTE: a) Never open or close a third rail switch without notifying Power Control.

- b) In case of emergency, only an authorized qualified employee may close a switch after failing to locate the person who opened the switch, ensuring that all tracks are clear and that the person who opened the switch will not be subject to injury due to the closing of the switch.

c) Never open a third rail switch under load.



# System Safety