

MINNESOTA STREETCAR MUSEUM



COMO-HARRIET STREETCAR LINE
Excelsior Streetcar Line

OPERATING RULES AND REGULATIONS

GOVERNING THE OPERATIONS OF STREETCARS AT THE

Como-Harriet Streetcar Line

and

Excelsior Streetcar Line

REVISION NUMBER:

4th Edition

EFFECTIVE DATE:

May 1, 2019

APPROVAL DATE:

March 14, 2019

Written By:

Bill Arends, Dave Higgins, Rod Eaton, Bruce Gustafson,
and James Vaitkunas

Published By:

Minnesota Streetcar Museum
Operations Department
Safety and Training Departments

TABLE OF CONTENTS

INTRODUCTION	4
ACKNOWLEDGMENTS	4
GENERAL STATEMENT OF POLICY	5
DEFINITIONS	6
I. GENERAL RULES	9
1.0 APPLICATION OF RULES	9
2.0 OPERATOR QUALIFICATIONS	9
3.0 GENERAL CREW REQUIREMENTS AND SCHEDULING	10
4.0 REPORTING FOR DUTY	10
5.0 CONDUCT OF MUSEUM PERSONNEL	11
6.0 PEDESTRIANS AND BIKERS IN DANGER; TRESPASSERS	12
7.0 OPERATIONS AND SAFETY BULLETINS	13
II. SIGNALS AND COMMUNICATIONS	14
8.0 HAND SIGNALS	14
9.0 USE OF RADIOS	15
10.0 FIXED SIGNALS	16
11.0 FOOT GONG, WHISTLE and INTERIOR BELL or BUZZER SIGNALS	16
III. OPERATION OF STREETCARS	18
12.0 TIME	18
13.0 STREETCAR OPERATIONS	18
14.0 DANGEROUS CONDITIONS	19
15.0 PROTECTION OF PEOPLE WORKING ON CARS OR ON THE RIGHT OF WAY.	19
16.0 TESTING BRAKES	20
17.0 AIR BRAKE FAILURES	20
18.0 COUPLING AND MOVING CARS	21
19.0 HEADLIGHTS AND TAILLIGHTS	21

20.0 AUTHORITY FOR MOVEMENT OF STREETCARS	21
21.0 SPEED	22
22.0 SWITCHES	22
23.0 SPECIAL RULES GOVERNING SPRING SWITCHES (IN ADDITION TO RULE 22).	23
IV. OTHER RULES	24
24.0 ELECTRICAL	24
25.0 ACCIDENTS AND EMERGENCIES	24
26.0 GENERAL SAFETY	26

APPENDICES

A – JOB DESCRIPTIONS

B – OVERHEAD TARGET INDICATIONS

C – SEQUENCE OF OPERATIONS (published separately)

D – SHIFT FOREMAN’S CHECKLISTS (CHSL & ESL) (published separately)

INTRODUCTION

The need for operating rules is clear and adherence to those rules is vital to the existence of the Museum, especially in today's litigious times.

The Museum's Operations, Safety and Training Departments first published these rules and regulations in May of 2006. The *Operating Rules and Regulations* (Rule Book) are reviewed on an annual basis. Changes to the existing rules are indicated with solid lines in the left margin of the affected section. We ask that you review the *Operating Rules and Regulations* to ensure your knowledge of them. Please join in the spirit of safety and enjoyment these rules are intended to bring to our Museum, not to mention a more prototypical operation.

Throughout this document, and in related museum materials, you will find many references to Motormen and Foremen. We recognize that these terms are gender specific, while in actual practice these positions may be held by women and men equally. We have elected to retain these titles because of their historical significance.

Thank you!

Bruce Gustafson
General Superintendent

ACKNOWLEDGMENTS

These procedures are published by the Minnesota Streetcar Museum's Operations, Safety and Training Departments:

Bruce Gustafson	General Superintendent
Bruce Gustafson	Superintendent of Operations
Dave Higgins	Superintendent of Training
John Dillery	Superintendent of Safety

Others who gave valued assistance in reviewing and editing these Rules for this edition and previous editions

Dave French	Bill Arends
Karl Jones	Rod Eaton
Mike Buck	Louis Hoffman

Material for this Rule Book has been adopted or drawn from:

Operations Handbook, Traction Division, MTM, May 1, 1981.

Rule Book of the New England Electric Railway Historical Society, Inc., May 1, 1998.

A History of Railroad Accidents, Safety Precautions and Operating Practices, by Robert B. Shaw, Vail-Ballou Press, Inc., 1978

GENERAL STATEMENT OF POLICY

The Minnesota Streetcar Museum (MSM) is a volunteer organization. Its future depends upon safe and competent operation of the demonstration railways at Lake Harriet in Minneapolis (Como-Harriet Streetcar Line or CHSL) and at Excelsior (Excelsior Streetcar Line or ESL).

ANY PERSON WHO SETS EQUIPMENT IN MOTION ACCEPTS THE FULL RESPONSIBILITY FOR THE RESULTING ACTIONS. THOSE WHO ACCEPT THIS RESPONSIBILITY HOLD THE FUTURE OF THE MUSEUM IN THEIR HANDS.

Safety is of the priority in any and every action taken as part of the museum. The proper observance of these Rules is a requirement to enjoying the rights and privileges of membership in the Museum and operation of our streetcars.

The Minnesota Streetcar Museum cannot support or condone any act that might discredit or bring legal action against the Museum or any of its members. This applies to the personal conduct of individual members while on the Museum's property as well as the operation of our historic streetcars at the Como-Harriet Streetcar Line and the Excelsior Streetcar Line.

Any infraction thereof or abuse of the Museum's property will result in appropriate disciplinary action as provided in the By-laws and other policies.

These Rules are designed to promote consideration and respect not only for the Museum's equipment but also for your fellow members and the public.

The proper observance of these Rules should therefore improve our safety habits and should impress on our passengers and visitors that The Minnesota Streetcar Museum is an institution worthy of their interest and support.



The Como-Harriet Streetcar Line and the Excelsior Streetcar Line, along with the right-of-way, stationary structures, and all historic vehicles operated thereon, have been restored through a cooperative effort by generations of Museum volunteers. In the case of CHSL we operate with the permission of the City of Minneapolis and the Minneapolis Park and Recreation Board. In the case of the Excelsior Streetcar Line, we operate with the permission of the Hennepin County Regional Railroad Authority and the City of Excelsior. Our two railways serve as an operating memorial to that era of Minnesota's history when tens of thousands of people were transported daily by streetcar.

It is the obligation of all Museum members participating in operations or maintenance to preserve, in spirit and action, the practices and procedures established for operating efficiency and the safety of our passengers. Failure to abide by Museum-approved operating rules and procedures may result in immediate disciplinary action, to include suspension or revocation of operating and work participation privileges.

Efficient and courteous operations are of prime importance at CHSL and ESL as are the safety of passengers, equipment, and fellow volunteers. All that we do must preserve and perpetuate the faith of the public in the high values and traditions established in the past.



NOTE: Significant changes to these rules from the 3rd edition is indicated by a solid vertical bar on the left margin of the changed or added section or paragraph.

DEFINITIONS

BULLETIN – Posted notice or advice which states or announces operating or safety conditions affecting the movement or safety of equipment, personnel or the general public.

STREETCAR - Any electrically powered (600-volt) vehicle operating on tracks.

CERTIFICATION – The process of becoming a fully trained and qualified Operator. Certification training consists of classroom and hands-on training in MSM operating rules and regulations, streetcar operations, platform operations and station operations. Passing a formal written and performance-oriented test and supervised operation of a streetcar in revenue service results in the Operator Trainee becoming certified.

CONDUCTOR – The individual in charge of movement and safety of a given streetcar, including the care and safety of the passengers, when there is a crew of two or more members. Conductors in passenger service must be at least 18 years old and must have passed a current Operators training course or recertification training. See the complete job description in Appendix A.

CONTROL TRANSFER LEVER – The lever or handle located at the front of a single-end TCRT standard streetcar and at both ends of a double-end streetcar that transfers control of the air brakes, and in some streetcars the traction power, to the opposite end of the streetcar.

DESIGNATED AUTHORITY – A Museum officer or department head designated on the Museum's Organization Chart.

DOCENT – A docent/guide or interpreter. Each member in all fields of endeavor at the Museum should perform this duty.

FIXED SIGNAL – A signal in a permanent stationary location. It may be a metal or wood sign, overhead target, switch position indicator, flag, yellow or orange traffic cone, or any other means of indicating a condition affecting movement.

FOREMAN – The individual in overall authority over a crew of volunteer workers during a particular operating or work period (a shift). See job description in Appendix A.

INSTRUCTOR/INSPECTOR - An authorized person who instructs individuals in the operation of streetcars and other equipment and vehicles used to operate the railway. This person(s) maintains general supervision over qualifications and performance of personnel engaged in all phases of operation. See job description in Appendix A.

MOTORCAR – Any motorized vehicle operating on track that is not a streetcar.

MOTORMAN – Operator of the streetcar under the direction of the Conductor. The Motorman must be a member of the Museum, must hold a valid driver's license, must have passed a current Operator's training course or recertification, and must be sufficiently physically and mentally fit to operate a car safely. See job description in Appendix A.

MOVEMENT, CHARTER (charter movement) – A scheduled revenue movement authorized by the Charter Agent.

MOVEMENT, EXTRA (extra movement) – A scheduled, non-revenue movement authorized by the General Superintendent, Superintendent of Operations, the Superintendent of Training, the Chief Mechanical Officer or shop Foremen and the Chief Engineer.

MOVEMENT, REGULAR (regular movement) – A scheduled revenue movement authorized by the Superintendent of Operations and reflected in the Humanity/ShiftPlanning system, or a special event Operating Order or other movement order.

OPERATING PERSONNEL – Operating personnel includes Foreman, Operators, and Station Agents/Agents.

OPERATING ORDER – A published document issued by the Operations Department that provides special operating schedules or a special sequence of operations for streetcars, and gives other operating or administrative instructions that govern a special event.

OPERATOR'S LICENSE – A license card, issued annually and signed by the Superintendent of Safety and Training or their authorized representative, which certifies that an Operator or Operator Trainee has successfully completed training or recertification and is, therefore, qualified to operate a streetcar as indicated on the license card.

PILOT – A qualified operator assigned to a streetcar when the motorman or conductor, or both are not fully acquainted with the physical characteristics or rules of the railway, or portion of the railway, over which the streetcar is to be moved. Additionally, a pilot can be assigned to supervise the operation of the streetcar itself, if one or more of the crew members are not qualified. The Pilot may also offer instruction.

QUALIFIED OPERATOR – An individual who has successfully completed all phases of Operator training or who has successfully completed the annual recertification training. An Operator is responsible for the movement of a streetcar through direct manipulation of the operating controls.

RECERTIFICATION – The annual refresher training process during which an Operator is re-familiarized with the techniques of streetcar, station platform and station interior operations.

RESTRICTED SPEED (OR CAUTION SPEED) – To operate a streetcar or motor car at a speed at which the Motorman or Operator can bring that vehicle to a complete stop within one-half (1/2) the distance of vision, short of an obstruction, other rolling stock, switch not properly aligned, opposing or converging traffic, personnel along the right-of-way or anything else that may require the vehicle to be stopped, or its speed reduced, in no case to exceed 10 MPH.

ROLLING STOCK – Any vehicle operating on tracks

SCHEDULE -- The authority for any streetcar movement and for designated work/maintenance periods. For regular movements, the Superintendent of Operations creates the yearly schedule of operations by entering date, time and crew requirements into ShiftPlanning. All extra movements and work-maintenance movements shall be coordinated with the Charter Agent and shall not, as far as possible, interfere with regular scheduled movements.

SEQUENCE OF OPERATIONS – The prescribed method by which a streetcar is operated. (See appendix C)

SHIFT PLANNING – Humanity/ShiftPlanning is an internet/web-based system that is used to create the regular movements schedule for the Museum's two demonstration railways. The ShiftPlanning program allows MSM operating personnel to volunteer (sign-up) for operating shifts by logging on to ShiftPlanning and making the appropriate entries.

SIGNAL – A device, movement, or other form of communication that conveys to the operator information concerning conditions affecting the movement of the streetcar. The appearance of a signal as viewed by the operator is its aspect. The information conveyed by the aspect is the signal's indication. The description of the indication is the signal's name.

SLOW SPEED – A speed not to exceed five (5) miles per hour (approximately nine (9) feet per second)

SPUR (track, switch) – A stub ended track or diverging route.

STARTER – A Foreman designated or assigned by the Superintendent of Operations to supervise streetcar movements during special streetcar operations, in particular those involving operation of more than one streetcar.

TRAINEE – An untrained volunteer receiving streetcar operations instruction and under the supervision of a pilot or instructor/inspector

WORK EQUIPMENT – Equipment operated on track for maintenance or construction purposes.

YARD LIMIT – An area within defined limits set aside for the purpose of movement, car storage and other purposes in which movements not authorized by the General Superintendent or Superintendent of Operations may be made. Movements within this area are subject to prescribed signals, rules, and/or special instructions.

I. GENERAL RULES

1.0 APPLICATION OF RULES

- 1.1 These Rules and other written instructions, procedures, bulletins, Operating Orders and notices published or adopted by the Museum apply to all Museum personnel whose duties they affect and must be obeyed. Adherence to the Rules is essential to safety and safety is of primary importance in the performance of duties.
- 1.2 Violation of a rule or rules may be sufficient cause for suspension or other disciplinary action.
- 1.3 Operating personnel must be conversant with and obey the rules, Operating Orders, special instructions, and bulletin notices. If in doubt as to their meaning they must request an explanation from the proper authority. If an operational situation arises where there is not time to contact the proper authority, the operator must take the safe course of action.
- 1.4 The Museum will maintain a program of training, testing, certification, checking, and periodic re-instruction of operating personnel in the Operating Rules and Regulations. Also, there will be a periodic review of the Operating Rules and Regulations themselves to ensure they are current and meaningful. Suggestions designed to improve any rule should be submitted to the Superintendent of Operations, the General Superintendent, or to the Superintendent of Safety and Training.
- 1.5 All qualified Operators will have their Operator's License for the current year in their possession while operating Museum streetcars or other equipment.
- 1.6 Personnel working in any service connected with the movement of rolling stock are subject to the Rules and special instructions.
- 1.7 Any serious violations of any Rules, Operating Orders, bulletins or, other instructions must be reported promptly to the General Superintendent or Designated Authority.

2.0 OPERATOR QUALIFICATIONS

- 2.1 Operators for regular, charter or extra movements must:
 - 2.1.1 Be at least 18 years of age;
 - 2.1.2 Be in good mental and physical condition, e.g., must be able to safely climb on and off the streetcar;
 - 2.1.3 Be an individual or household MSM member in good standing;
 - 2.1.4 Possess a valid state motor vehicle driver's license;
 - 2.1.5 Demonstrate mature and responsible behavior; and,
 - 2.1.6 Successfully complete MSM's Operator Safety and Training Program.
- 2.2 Individuals under the age of 18, at the discretion of the General Superintendent, may operate as Operator-trainees if they meet the other requirements of Rule 2.1 and are under the direct supervision of a scheduled Foreman, subject to the Foreman's discretion.

- 2.2.1 The General Superintendent will inform the Board Chair of any decision to authorize an operator under the age of 18.
- 2.3 An Operator-trainee may be assigned to regular movements under the direct supervision of the shift Foreman.
- 2.4 If an operating person's MSM membership has expired, their operating privileges will be immediately suspended until such time as they renew their membership.
- 2.5 The General Superintendent will make all final decisions regarding member operating capability or privileges.
- 2.6 Certified operating personnel (Foremen and Operators) shall be recertified annually by successfully completing a session that covers rules, procedures, and car operations designed and implemented by the Operations and Safety Departments. Operator's licenses will be issued to operating personnel when they successfully complete re-certification training.
- 3.0 GENERAL CREW REQUIREMENTS AND SCHEDULING – *Humanity/Shift Planning***
- 3.1 CHSL: Regular movements of a single streetcar shall have a four-person crew, which includes a Foreman and three qualified Operators or a Foreman, two qualified Operators and a non-operating Station Agent. This is the desired and scheduled number of positions.
- 3.1.1 A minimum of three crewmembers is required. The crew shall consist of a Foreman and two qualified Operators or a Foreman, one qualified Operator and a non-operating Station Agent.
- 3.1.2 Failure to staff to the minimum requirements set out in 3.1.1, will result in the cancellation of the shift.
- 3.2 ESL: Regular movements of a single streetcar shall have a three-person crew, which includes a Foreman, and two qualified Operators or a Foreman, one qualified Operator and a non-operating Station Agent. This is the desired and scheduled number of positions.
- 3.2.1 A minimum of two crewmembers is required. The crew shall consist of a Foreman and one qualified Operator.
- 3.2.2 Failure to staff to the minimum requirements set out in 3.2.1, will result in the cancellation of the shift.
- 3.3 *ShiftPlanning* System. Crew members will sign up for all regularly scheduled shifts and for all special events using the *ShiftPlanning* internet web-based system established for the purpose. The *ShiftPlanning* system is managed by the Superintendent of Operations. *ShiftPlanning* instructions and other appropriate material will be issued at the beginning of each operating season.
- 3.4 The Superintendent of Operations, coordinating with the MSM Charter Agent, will determine staffing for charter and extra movements.
- 4.0 REPORTING FOR DUTY**
- 4.1 Operating personnel will have access to up-to-date copies of these Rules and other prescribed rules or instructions. A current copy of these rules is kept in the George K. Isaacs and Excelsior carbarns and in the Linden Hills Station. A current copy of this rule book is

found on our website in the “Members Only” section and can be downloaded and printed at any time.

- 4.2 Foremen report for duty no later than 30 minutes prior to the start of the first shift or 15 minutes prior to the start of a second shift. All other operating personnel (Operators and Station Agents/ticket booth agents) must report for duty at least twenty (20) minutes prior to the start of their scheduled shift or 15 minutes prior to the start of a second shift unless advance arrangements have been made with the shift Foreman.
- 4.3 Operating personnel must read the Operating Orders, bulletins, notices, and other information posted on the official operations bulletin board mounted inside the George K. Isaacs and Excelsior carbarns and in the Linden Hills Station agent’s binder. Operators must review the bulletin board each duty day to check for new Operating Orders, bulletins and any other important notices.
- 4.4 All operating personnel must immediately inform the Foreman if they are not able to report to duty on the prescribed date and time. If shift swaps are arranged, both Operators must inform the respective Foremen of the swap as soon as it is arranged.
- 4.5 All operating personnel must be clean and neatly groomed. In order to create the proper old-time atmosphere for the public, they shall wear a uniform consisting of a minimum of a medium-gray shirt, black tie (optional depending on the weather), black trousers and socks (women may wear a skirt or pants), and black shoes (polished preferred). We encourage the wearing of a regulation cap and hat badge, but this is not mandatory. The wearing of a matching uniform jacket and vest is also optional. Members are encouraged to wear authentic uniforms and hat badges if they have them.

5.0 CONDUCT OF MUSEUM PERSONNEL

- 5.1 All Museum personnel must perform their duties consistent with the procedures and rules as described in this Rule Book, Bulletins, and Sequences of Operations.
- 5.2 Museum personnel must engage only in Museum business while on duty and perform their duties thoroughly, efficiently and in compliance with rules and instructions. They must render every assistance in carrying out Museum rules and instructions.
- 5.3 Civil and proper behavior is required of all personnel in their dealings with the public, their fellow volunteer co-workers, and other Museum members. Under no circumstances will a Foreman or other member correct or criticize the performance of an Operator when passengers, the general public or other volunteers can overhear the conversation. In addition, jokes or other side comments about a volunteer, whether well-meaning or not, when passengers, the general public or other volunteers can overhear, is strictly prohibited. Violations of these rules could result in disciplinary measures taken against the offending member to include suspension or revocation of operating privileges.
- 5.4 Announcements, discussion, or “off the cuff” remarks regarding politics, political parties, or persons holding public office will not be a part of the end of line talk. Discussion, announcements or talk that may be overheard by passengers or our neighbors that disparage any political party or person holding public office at the national, state or local level is strictly prohibited.

- 5.5 Museum personnel must continually exercise care to avoid injuring themselves or others. They must know the locations of restricted clearances and must be alert for the movement of rolling stock on any track in either direction. They must not stand on the track in front of an approaching car or walk in front of a moving car for any purpose.
 - 5.6 Foremen and Operators must be in good enough mental and physical condition to manage operations and operate the streetcars or motorcars safely. Museum Officers, Foremen and Instructors/Inspectors will observe operating crews while in service and if they observe someone whose mental or physical condition impairs the ability to operate safely, they will reassign the volunteer to other duties. Personnel who have been reassigned or relieved of duty because of physical or suspected mental conditions will be reported immediately to the General Superintendent and to the Superintendent of Operations.
 - 5.7 The use, possession, or influence of intoxicants or narcotics by personnel available for or on duty is prohibited. No person who has taken intoxicants or narcotics in the preceding eight (8) hours shall be engaged in any way in the operation of a streetcar or any other rolling stock. A Designated Authority having reason to suspect that a person is under the influence of intoxicants or narcotics shall not permit such person to be engaged in the operation of a streetcar, motor car or any other rolling stock.
 - 5.8 Any person taking medication that may affect his or her judgment or faculties must not be engaged in the operation of rolling stock in any way or in any other activities whose performance may be impaired by the medication.
 - 5.9 The use of tobacco by crewmembers while operating cars in passenger service, or in any streetcars, motorcars, carbarns, station buildings or platforms is prohibited.
 - 5.10 Members must keep the premises in a neat and orderly condition. They must use care and economy in the use of the Museum's property and energy.
 - 5.11 Museum personnel must not occupy seats in streetcars if passengers are standing. Museum personnel wearing badly soiled or greasy clothes must not occupy seats at any time.
- 6.0 PEDESTRIANS AND BIKERS IN DANGER; TRESPASSERS**
- 6.1 When operating a streetcar or motor car and persons are noticed on, or immediately adjacent to, our track and right-of-way, Operators must immediately shut off power, bring the brake handle into the lap position, and ring the streetcar warning foot gong or give several short toots of the whistle. Motor car operators must take comparable action. If the person does not respond to the warning rings or whistle toots, immediately slow down the streetcar or motor car and bring it to a stop. Then proceed at dead-slow speed.
 - 6.2 When persons are discovered in locations where they are not permitted or where they may be endangering themselves, report the incident to a shift Foreman, Starter, Museum officer, Designated Authority, or a local police officer as quickly as possible, depending on the urgency and severity of the incident.

7.0 OPERATIONS AND SAFETY BULLETINS

- 7.1 Operations and safety bulletins will be issued periodically and as necessary to inform operating crew and others of conditions that may affect the safety of operations at both streetcar lines.
- 7.2 Operations and safety bulletins will be issued by either the General Superintendent or the Superintendent of Operations. Other Museum officers and department heads may issue operations and safety bulletins, but these should first be coordinated with the General Superintendent or the Superintendent of Operations. These bulletins should be in the same general format.
- 7.3 When crewmembers first report for their shift they must review the current Operations and Safety bulletins, Operating Orders and any other notices that are posted on the operations bulletin boards in the George K. Isaacs and Excelsior carbarns, or in the station agent's binder located in the Linden Hills Station. Current Operations and Safety Bulletins will also be posted in the "Operations: Rosters, Schedules and Instructions" section of the MSM website.
- 7.4 Operations newsletters will be sent to all operating personnel on an irregular basis throughout the operating season. These newsletters contain important information and instructions for crews on station operations, reminders on specific rules and procedures and updates on the status of operations, training, maintenance activities and other information. These newsletters should be read by all operating personnel and reviewed by the individual crewmember prior to each shift. The instructions and information contained in the Operations Newsletters are valid for the entire operating season unless otherwise announced.

II. SIGNALS AND COMMUNICATIONS

8.0 HAND SIGNALS

8.1 Hand signals are as illustrated below. The speed of the hand movement is proportionate to the manner in which the signal is to be observed. For example: when the stop signal is observed, the train must be stopped immediately at a rate proportionate to the speed of the hand movement. Operators must not assume that the person giving this signal is simply "flagging down" the streetcar or rolling stock.

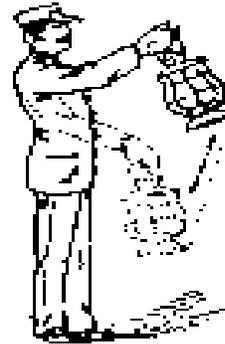
1. STOP

Swung horizontally at a right-angle to the track



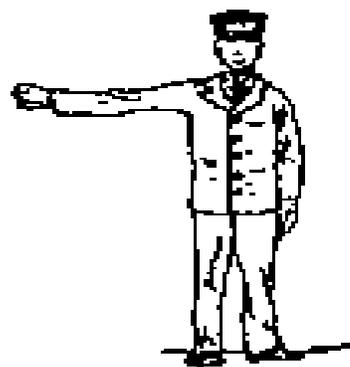
2. PROCEED FORWARD

Made in relation to the operator's position - i.e: put the reverser key in the forward position.
Raised and lowered vertically.



3. REVERSE

Made in relation to the operator's position - i.e: put the reverser key in the reverse position. Swung in a circle.



4. SLOW DOWN

One hand extended horizontally at arms length.

- 8.2 The following must always be regarded as a signal to stop:
- 8.2.1 A signal whose meaning is unclear.
 - 8.2.2 Any object waved violently by anyone on or near the tracks or on a car or rolling stock on an adjacent track
 - 8.2.3 Disappearance of a person giving hand signals or of the light by which such signals are given.
- 8.3 Operating personnel must keep a constant lookout for hand signals. Persons giving hand signals must locate themselves so as to be plainly seen and give signals so as to be plainly understood. Those to whom hand signals are given must act on them promptly and properly.
- 8.4 The person giving hand signals during yard, switching, backing, or other such operations is in charge of the operation and their instructions are to be obeyed.
- 8.5 Operators must not move rolling stock on a hand signal unless positive that the signal was intended for them.
- 9.0 USE OF RADIOS**
- 9.1 The hand-held radios are to be used only in emergencies and for special movements. They are not to be used for normal streetcar operations as they are not authentic and detract from the overall historic “ambience” we are attempting to convey and replicate.
- 9.2 The National Transportation Safety Board has recommended that organizations that offer rides or excursions to the public equip each car or rolling stock in use with radio capability in order to be able to summon local emergency services for those persons on the car that may require emergency assistance. This link is maintained with the Linden Hills Station Agent or Crossing Guard/Platform Attendant, who will relay all radio requests for assistance to the proper authorities over the telephone. Crew members are requested to use their personal cell phones to call the appropriate agencies in an emergency situation, if they have a cell phone with them.
- 9.3. Radios must be used exclusively for Museum operations (no private conversation) and, in the event of failure of such communications, other means must be used to avoid delay.
- 9.4 No one shall knowingly transmit any false distress communication, any unnecessary, irrelevant, or unidentified communication, or utter any obscene, indecent, or profane language.
- 9.5 Radio Operating Procedure.
- 9.5.1 Any person making a transmission will identify themselves by the name of their function, location and/or equipment and the destination of the transmission. (e.g., *“Conductor, car 1300, at William Berry Bridge, to Starter.”*).
 - 9.5.2 **“EMERGENCY”** must be transmitted **three (3)** times to obtain use of the radio for initial report of conditions endangering car/rolling stock movement or to report an emergency.

- 9.5.3 Everyone shall give absolute priority to emergency communications and, except in answering or aiding a station in distress, shall refrain from sending any communications until there is assurance that no interference will result to the station in distress.
- 9.5.4 Any radio communication that is not fully understood or completed in accordance with the requirements of these rules must not be acted upon and must be treated as though not sent.
- 9.5.5 All transmissions must be kept as **brief** as possible, without being curt or rude. If more information is required or a misunderstanding develops, you may be asked to repeat or clarify your transmission.
- 9.5.6 Individuals using radio equipment must exercise care to prevent damage to or loss of such equipment. Those individuals assigned a portable radio will be responsible for the care and protection of such a radio while in their possession.
- 9.5.7 Radio communications are often monitored by the Federal Communications Commission to ensure rules are followed and proper decorum is maintained. Be sure to follow the rules as stated within this procedure at all times.

10.0 FIXED SIGNALS

- 10.1 Fixed signals are flags, boards, cones, painted pipe devices, switch stand targets and common street signs whose meanings have become convention.
- 10.2 Flags are often used as temporary signals, which can be left in place until a problem is quickly corrected or a more permanent sign can be installed.
- 10.3 Overhead Targets. See Appendix B.

11.0 FOOT GONG, WHISTLE and INTERIOR BELL or BUZZER SIGNALS

- 11.1 The foot gong and whistle must be sounded where required by Rules or operating conditions.
- 11.2 Refrain from unnecessary use of the whistle. Instead, use the foot gong.
 - 11.2.1 CHSL: Refrain from unnecessary use of the whistle, especially in the area of the S-curve and William Berry Parkway Bridge. It is customary to make two short “toots” of the whistle when passing **northbound only** directly under the William Berry Parkway Bridge.
 - 11.2.2 ESL: Whistle may be used at Water Street and when going under the Mill Street bridge.
- 11.3 Whistles are not to be sounded after 8:30 p.m. or after dark, whichever comes first, or before 8:30 a.m., unless an emergency demands their use (this is out of consideration for our neighbors).
- 11.4 Operating crews may allow riders to operate whistles or gongs when the car is stopped provided that it does not interfere with the safe operation of the car or negatively impact the operating schedule.

11.5 Streetcar signals for warning and communication:

SOURCE	BELL or BUZZER	WHISTLE	INDICATION
Conductor	1		When moving, stop at next regular stop.
Conductor or Motorman	2		When standing, release brakes and proceed.
Conductor or Motorman	3		When standing, back up.
Conductor or Motorman	4-5 or more		When moving, STOP NOW!
Motorman or Conductor	1-3 (foot gong)		Approaching a point of limited visibility.
Motorman or Conductor	5+ (foot gong)	Succession of short blasts	Warning to persons and animals on track.

NOTE: The Motorman must always return the Conductor's signals before applying power!

11.6 Door Signals. Conductors will request that the rear door or gates be opened by the Motorman as follows.

- One buzz – Open the rear doors or gates.
- Two buzzes – Close the rear door or gates.

III. OPERATION OF STREETCARS

12.0 TIME

- 12.1 The Museum's Demonstration Railways operate on prevailing local time. This will be known as "Standard Time".
- 12.2 The correct Standard Time will be indicated by the clock in the George K. Isaacs and Excelsior carbarns or such other clock as designated by the General Superintendent.
- 12.3 Museum personnel involved in any way with car operation shall wear or carry a reliable watch or other time-keeping device such as a cell phone or smart phone while on duty.
- 12.4 Passengers shall be informed immediately of any delays or disruptions in service.

13.0 STREETCAR OPERATIONS

- 13.1 Foreman, Starters or other supervisory personnel shall not direct Operators to act in ways contrary to the Rules, Bulletins or Sequence of Operations.
- 13.2 During regular revenue operations, the shift Foreman is in overall charge of streetcar operations acting as the dispatcher for that shift.
 - 13.2.1 For charter operations during regular revenue operations, the regular Shift Foreman is in charge of all streetcar movements, including the chartered streetcar.
 - 13.2.2 For extra or special operations during regular revenue operations, the Starter, Lead Foreman, or designated Foreman is in charge of all streetcar movements.
- 13.3 Operation of streetcars in regular, charter, and extra operations (movements) will be in accordance with the established sequences of operation (Appendix C) unless modified by an Operating Order, bulletin or special instructions issued by the General Superintendent or Superintendent of Operations.
- 13.4 Operators engaged in streetcar operations will follow the aspects indicated by the overhead targets (see Appendix B) that generally coincide with instructions contained in the sequence of operations (see appendix C)
- 13.5 Operators will be governed by the sequence of operations for two car movement or by a special operations order when operations involve two streetcars.
- 13.6 When three streetcars are in operation for special events, movements will be governed by radio or verbal communication from the Starter or Foreman in charge.
- 13.7 Foremen will use the CHSL or ESL Foreman's checklist as a job aid to ensure that all pre- and post-shift tasks are performed (Appendix D).
- 13.8 Any unusual occurrence such as a breakdown, dewirement, etc., must be reported to the Foreman immediately by radio if the Foreman is not present. If the radio does not function, the crew members will call the depot phone number (952) 925-3716.

- 13.9 Any movement outside of the norm of the regularly scheduled streetcar shall be directly supervised by the shift Foreman. The Shift Foreman is in charge of all operations and actions during the shift including extra and charter movements. If Operators identify or suspect a problem, the Foreman should be contacted immediately by radio. Any operational action must be referred to the Foreman for approval prior to being implemented.
- 13.10 Control Transfer Levers. When transferring streetcar control from front to rear and back again, Motormen/Operators must ensure that the control transfer lever is rotated until it firmly stops or “clicks” into place. For those cars that have micro-switches as a part of the control transfer function, Operators will ensure that the micro switch is in its proper position.

14.0 DANGEROUS CONDITIONS

- 14.1 Immediately inform other operating personnel of any dangerous condition observed or likely to affect their car, ordering them to stop if necessary. Then notify the Shift Foreman, Starter (if there is one), or another Designated Authority.
- 14.2 Immediately inform the Foreman of workers on or fouling any main track not protected by proper work zone signals.
- 14.3 Standing between two streetcars when attempting to couple them is strictly prohibited.
- 14.4 Standing or walking between two powered streetcars that are less than ten feet apart is strictly prohibited unless the controllers are in neutral, air brakes are applied, and wheel chocks are placed on each side of one or more wheels.
- 14.5 Use of car mover. If a streetcar becomes stuck in the overhead wire dead zone going into or out of the carbarn, a car mover will be used to move the car. Towing a streetcar off the dead spot with another streetcar is strictly prohibited.

15.0 PROTECTION FOR WORKERS WORKING ON CARS OR ON THE RIGHT OF WAY.

15.1 Workers Working on Rolling Stock

- 15.1.1 A blue flag or a yellow/red cone if a blue flag is not readily available, must be displayed at both ends (one end, if other end of car is at the end of track) of rolling stock on main, shop or yard tracks to indicate that workers are about. Rolling stock so protected must not be coupled or moved. Other rolling stock must not be placed where they obstruct this signal without first warning the workers.
- 15.1.2 A blue flag or sign shall also be attached to the trolley rope or retriever of any streetcar so it can be plainly seen, when work is being done on that streetcar so another worker won't inadvertently place the trolley wheel on a live wire.
- 15.1.3 The operator of rolling stock so protected must be verbally notified when the signals have been displayed and when they have been removed. If possible, the workers will obtain the reversing key from the operator before displaying the signals and will return it when the signals have been removed.
- 15.1.4 Only the worker displaying a blue flag or a yellow/red cone shall remove it. It must be removed by the worker who placed it when all other workers are clear.

- 15.1.5 Under no circumstances may a blue flag or a yellow/red cone be used to "bad order" rolling stock.
- 15.1.6 Operating personnel must assume that workers are on or about rolling stock in shops or carbarns even in the absence of a blue flag or a yellow/red cone. Rolling stock in carbarns must not be moved until it is determined that all workers are clear. Rolling stock in shops must not be moved without approval from a Designated Authority.

15.2 Workers Working on Right of Way

- 15.2.1 Streetcars must not pass workers on or about the track until signaled by the workers to proceed.
- 15.2.2 Workers on or about the track, upon being approached by a streetcar, shall stand clear of the track and signal the car to proceed as promptly as circumstances will permit.
- 15.2.3 Workers on the main line shall protect "for and against" cars. Protecting "for" a car means protecting passing cars from danger or damage by equipment, materials, or conditions at the work area. Protecting "against" cars means protecting workers from danger or injury and equipment from danger or damage caused by passing cars.
- 15.2.4 The following is the minimum flagging equipment that shall be carried and used by work crews on the main line:
 - 2 red or orange flagging devices (flags or cones).
- 15.2.5 The following shall be used when working between sunset and sunrise, or when the work area cannot be secured safely during in addition to the flagging devices.
 - 2 red lights or lanterns

16.0 TESTING BRAKES

- 16.1 A rolling brake test must be made prior to entering any carbarn building.
- 16.2 A rolling brake test must be made each time the direction of travel of a streetcar is changed, i.e., from forward to reverse or vice-versa.

17.0 AIR BRAKE FAILURES

- 17.1 In case of brake failure bring the streetcar to an immediate stop by the prescribed method and upon stopping chock the wheels using the wheel chocks provided for this purpose located on the front platform of each streetcar. Notify the Foreman, Starter (if there is one), Station Agent, or Designated Authority immediately thereafter. This Rule also applies to loss of electric power.

18.0 COUPLING AND MOVING CARS

- 18.1 Coupling or connecting two streetcars should be done only in very rare and unusual situations. In these rare cases, the shift Foreman during regular, charter and extra movements, or a qualified shop supervisor during non-operating times, must approve, personally supervise and be an active participant in the activity.
- 18.2 Standing between the two cars when attempting to couple them is strictly prohibited. A board or rope, held by two Operators standing outside the rails on each side of the track, should be used to position the connecting pole or drawbar.
- 18.3 If a streetcar must be pushed or towed, the streetcars must not be operated with the Operator in a position other than the leading or forward position on the car or cars unless a member of the crew is stationed on, or in, a position from which he or she can observe the leading end of the streetcars being pushed or backed. This person is in charge of the train movement and must act as lookout for the Operator, guiding the Operator by hand signal or radio communication. The movement must be stopped immediately if communication is lost or danger threatens.

19.0 HEADLIGHTS AND TAILLIGHTS

- 19.1 During daylight hours, streetcars will operate with headlights on at all times unless the headlight bulb blows during a regular shift. If that occurs an immediate defect report must be written up at the end of the day's operations and reported to the shop Foreman.
- 19.2 During nighttime regular, charter or extra movements, streetcars shall operate with the headlights or ditch lights on. However, certain special events may call for streetcars to operate without headlights or ditch lights.

20.0 AUTHORITY FOR MOVEMENT OF STREETCARS

- 20.1 See paragraph 13.0 STREETCAR OPERATIONS for guidance regarding the movement of streetcars on the CHSL and ESL mainlines.
- 20.2 Power demand considerations must be taken into account at all times during railway operations when three streetcars are in operation during special movements or events. Generally, all three streetcars must not be drawing power at the same time. The Starter or Foreman in charge must communicate to streetcar Operators using the radios to ensure that all three cars do not draw power simultaneously. The Starter or Foreman in charge must monitor traffic during these times to ensure a new demand peak is not set. If a new demand peak is set it will increase the cost of the Museum's electric power.
- 20.3 Yard and Shop Movements.
- 20.3.1 Except as provided in Rule 20.4, no authority is necessary for after-hours movements operated solely on yard tracks and which do not foul main tracks. During the hours of public and special event operations, the Starter or Foreman in charge must be aware of all moves because of the general safety of the other operating streetcars and for power demand concerns and overall power usage.
- 20.3.2 Streetcars and motor cars must make a full stop before entering or leaving any building or work facility and sound gong before proceeding.

20.3.3 Yard movements must stop short of track clearance points when necessary to clear other yard movements. When yard movements conflict all must be stopped short of track clearance points unless there is a definite understanding as to order of movement.

20.4 During after-hours or periods of non-revenue operation, streetcars must not be operated unless authorized by one of the persons listed below:

- The General Superintendent
- The Superintendent of Operations
- The Chief Mechanical Officer or Shop Foreman
- The Safety Officer
- The Superintendent of Training or an Inspector/Instructor
- Chief Engineer and qualified track and overhead personnel

This Rule applies to all car operations, whether over main tracks or yard tracks.

20.5 There must be at least two people present for a regular, charter, or extra movement to operate and one of those individuals must be a qualified Foreman. Operation of a streetcar with only one operating person is strictly prohibited except for switching moves in yards and if approval is granted by those designated in rule 20.4.

20.6 **Approaching Other Rolling Stock** A streetcar approaching other rolling stock on the same track or approaching rolling stock fouling that track must not operate closer than 4 to 5 line pole lengths (400 feet) to the rolling stock being approached except at Restricted Speed and must make a safety stop at least one car length (50 to 100 feet) from the rolling stock being approached.

21.0 SPEED

21.1 Maximum speed on all CHSL and ESL mainline track is 20 miles per hour.

21.2 At CHSL maximum speed while crossing West 42d Street and transiting the Linden Hills platform area is 5 miles per hour.

21.3 At ESL maximum speed while crossing Morse Avenue and going past the Lyman Lumber Company office building and the Excelsior car barn is 5 miles per hour.

21.4 Any Designated Authority may order a slower speed limit than the maximum permissible speeds (provided for in rule 21.6) on any track.

21.5 Maximum speed in CHSL and ESL yard areas is 5 miles per hour.

21.6 In no event shall a streetcar be operated at a speed greater than that which will permit the operator to bring the streetcar or motorcar to a controlled stop within his or her range of vision at a speed which because of circumstances (whether track conditions, persons about tracks, restricted sight lines, or any other reason) the Operator believes necessary.

22.0 SWITCHES

22.1 When approaching a switch from either direction during regular, charter or extra operations (movements), Operators will reduce speed of the streetcar or motorcar to SLOW SPEED (5 miles per hour) no closer than ten (10) feet from the switch.

- 22.2 When approaching a switch from either direction, Operators will observe the switch points to make sure that they are aligned for the route the streetcar is supposed to take. If the points are not properly aligned, then the streetcar must come to a stop so the switch can be aligned for the correct route. This rule does not apply to trailing movements through a spring switch.
- 22.3 During switching operations, an unattended main track switch must be returned to its main track position.
- 22.4 Persons handling switches must know that the switches are properly lined for the movement to be made and that the switch points are properly closed. Switches must be left in proper position and locked after having been used.
- 22.5 Persons changing the position of a switch must not remove the lock from or attempt to operate the switch while a streetcar or rolling stock is passing over the switch.
- 22.6 If a switch is damaged, an immediate report must be made to the Starter, Foreman or another Designated Authority, e.g., the Chief Engineering Officer. If it cannot be made safe, protection must be provided to prevent cars from operating over the switch. If a car must be operated over the switch it must be done so at dead slow speed with a crew member on the ground giving instructions to the Operator. The Operator must be prepared to immediately stop the car if a potential derailment is observed.
- 23.0 SPECIAL RULES GOVERNING SPRING SWITCHES (IN ADDITION TO RULE 22).**
- 23.1 A streetcar stopping on a spring switch while trailing through and actuating the switch points must not make a reverse movement until it is known that the switch points are in proper alignment for safe movement.
- 23.2 Streetcars must never trail through and actuate the switch points when the points may be frozen or when movement of the points may be impeded by snow, ice, gravel, or in any other way whatsoever. In such cases, switch points must be operated by hand.

IV. OTHER RULES

24.0 ELECTRICAL

- 24.1 All wires and any object in contact with them must be considered to be energized at all times. Unauthorized persons must not touch or come in contact with them.
- 24.2 To remove a person from contact with an energized electrical conductor, grasp their dry clothing or use a dry non-conducting object to push or pull the person away. Do not touch the person's bare skin or stand in water or on wet ground.
- 24.3 If electrical storms are in the immediate proximity of the either CHSL or ESL, traction power must be shut off as soon as practicable. Operators of cars must bring their cars to a stop in a safe location (preferably under a bridge) lower their trolley poles, and remain in that location until notified by the Foreman that the storm has passed.
- 24.4 Should traction power be interrupted for any reason, streetcar Operators must wait a short time following restoration of traction power before moving and then accelerate slowly.
- 24.5 Any defect, abnormality, or unusual condition affecting trolley wire or other electric power distribution devices must be reported to the Starter or Foreman or another Designated Authority **at once**.
- 24.6 A tag and lock must be applied to controls governing the power supply of areas de-energized for work or other abnormal conditions or to controls governing defective or out of service power distribution equipment. The tag shall specify the condition requiring it to be applied and the name of the person applying it.
- 24.7 Power distribution devices with tag and lock applied must not be operated except by the person who placed the tag or by the Chief Engineer or his designee.
- 24.8 Traction power must not be restored to trolley wires following an emergency, work, or abnormal conditions requiring them to be shut off until it is known **by physical inspection** that all persons and foreign objects are clear of electrical conductors.

25.0 ACCIDENTS AND EMERGENCIES

- 25.1 All Museum personnel must unite to protect human life and property in case of an accident or emergency. Primary effort must be aimed at preventing injury to any person and obtaining aid for anyone already injured.
- 25.2 The Foreman in cases involving the operation of the streetcar line (or in other cases, a Museum officer) must be fully informed immediately of any injury or accident or of any situation likely to cause injury or accident or endanger Museum property.
- 25.3 When there is evidence of an actual or possible fire on the streetcar, i.e., someone smells burning on or underneath the streetcar, or the Operator hears a "sparking" or popping sound from inside the controller, the following actions will be taken.
 - 25.3.1 The streetcar will be brought to a stop immediately. The operating crew will use every effort to prevent passengers from becoming panic-stricken or leaving the car until it is brought to a full stop.

- 25.3.2 After the streetcar has stopped, crewmembers shall evacuate passengers and attempt to extinguish the fire.
- 25.3.3 When a fire on a streetcar is detected or even suspected, a crewmember should immediately stop the car (as directed above) and pull the trolley pole down as quickly as possible and wrap the trolley rope around the retriever.
- 25.3.4 After the above actions are accomplished, a crewmember should immediately request assistance from the Foreman or Station Agent (e.g., to call 911), or the crewmember can call 911 if they have a cell phone.
- 25.4 When there is an emergency or persons are injured or taken ill on Museum property **call 911 immediately.**
- 25.5 Immediately following any accident anywhere on the line involving a streetcar or motorcar, on our station platform, or along the right-of-way, an Accident/Incident report must be filled out by each involved party and the authority coordinating the stabilization of the accident and filed with the Safety Officer, Department Superintendent, or General Superintendent. Accident/Incident forms are available on each car (usually in the trip sheet clip board) in the station and in the George K. Isaacs and Excelsior carbarns. This form requires specific information about the accident and the persons involved such as names, addresses, date, time, etc. To be sure you obtain this information, it is essential to fill out this report with those involved at the accident/incident site as soon as practicable.
- 25.6 ACCIDENTS WITH A MOTOR VEHICLE, BICYCLE OR PEDESTRIAN. If an accident occurs with a motor vehicle, bicycle or pedestrian, immediately stop the streetcar or motorcar and render assistance as necessary. Call or direct the Station Agent or another crewmember to call 911 if required.
- 25.6.1 After emergency assistance is called, one of the crew should start gathering information and witness information to complete the Accident/Incident form as directed in paragraph 23.5.
- 25.6.2 Depending on the nature of the auto accident, a Minnesota Department of Public Safety Accident Report may have to be completed. The Police Department normally will do this. Your name as the Operator might have to go on this form. This is acceptable; however, your state driver's license number should not go on the form. All you are required to show to the Police Officer is your MSM Operator's license card you received when you were certified or recertified.
- 25.6.3 If the police respond to the accident, crewmembers are not required to show them their state automobile operator's license unless the Police Officer insists. If asked for identification, crewmembers should show the Police Officer their streetcar Operator's license. That is all that is required by law because the Minnesota Department of Public Safety has ruled that our streetcars are not to be considered motor vehicles but property for automobile accident reporting purposes.
- 25.6.4 If a camera is available, it would be preferable to have someone take photos of the accident scene and the damage to both the streetcar and the automobile.

26.0 GENERAL SAFETY

- 26.1 Remember that in case of doubt as to the course of action, the **safe course** must always be taken.
- 26.2 Before moving a streetcar, the Motorman and Conductor, or maintenance personnel moving a car within the shop or yard, must see that all personnel and members of the public are clear of the intended movement. If you do not know where other crew members are located, do not move the streetcar until their safety is assured.
- 26.3 When standing near a streetcar when it is passing, personnel should face towards the streetcar and stand a reasonable distance away from the streetcar.
- 26.4 When moving a streetcar into or out of a carbarn or storage building, the foot gong must first be rung several times to alert all personnel of the movement. While the streetcar is moving inside the carbarn, the foot gong must also be rung as often as deemed necessary until the streetcar comes to a final stop inside the building or is completely outside of the carbarn or storage building.
- 26.5 All members must be observant of any unsafe conditions on Museum property and report it immediately to the Designated Authority.
- 26.6 All members can help to improve our safety discipline by pointing out each other's unsafe practices when appropriate and make helpful suggestions to correct them.
- 26.7 Members are responsible for the actions of their guests and must ensure that their guests follow all the Museum's rules, policies and safety practices.
- 26.8 All personnel engaged in repair, maintenance, or construction activities must use the necessary safety equipment for that activity. The Safety Officer or Shop Foreman will answer any questions and are responsible for the enforcement of this rule in their respective areas.
- 26.9 All Members will wear the reflective safety vests while guarding any crossing, even during daylight hours.
- 26.10 All motor vehicles driven on the Museum's grounds must observe the 10 miles per hour maximum speed limit.
- 26.11 All members who operate the Museum's equipment on the Museum's property must have received proper training in their operation and use by a Designated Authority or be accompanied by a qualified Operator. If this equipment is to be operated off the Museum's property, the Operator must possess the proper current operator's license for that equipment.

APPENDIX A**JOB DESCRIPTIONS****Foreman**

REPORTS TO: Superintendent of Operations

DUTIES, RESPONSIBILITIES AND REQUIREMENTS:

1. Foreman in regular, charter or extra operations (movement) must be a valid member of the Museum, successfully completed Foreman training and hold a valid Operator's license for the current year.
2. The Foreman is the individual having the authority to issue instructions governing the operation and movement of streetcars and is responsible for the coordination and safety of all streetcar movements on the Museum's demonstration railways and associated yard trackage while they are on duty.
3. During regular, charter or extra operations (movement), all other persons who wish to move a vehicle on the railway must coordinate that move with the Foreman.
4. The Foreman will be familiar with the Foreman's checklist (Appendix D) and comply with all the actions contained on the checklist.
5. All Conductors, Motorman, Docents and other railway operations staff on duty shall report to the Foreman and take their direction from him/her. The Foreman shall ensure the car crews and docent/guides perform their duties and interface with the public in a safe and professional manner thus insuring our visitors will get the most from their visit to the Museum.
6. The Foreman is responsible for the assignment and rotation (to provide variety) of qualified car crews to ensure that all crewmembers have a more-or-less equal opportunity to operate a streetcar.
7. For those days when carbarn tours are offered, the Foreman shall ensure that the carbarn is open and ready to receive visitors and that when available all carbarn docent/guides are on duty.
8. The Foreman is responsible along with the Inspectors/Instructors for enforcing all rules and procedures including safety procedures and may temporarily suspend any individual who violates them pending an investigation by the Superintendent of Operations.
9. The Foreman shall coordinate emergency procedures and operations in conjunction with the Safety Officer or his designate.
10. The Foreman is the focal point and coordinator of all radio communications for the Railway's operation. The Foreman must inspect the portable radios and test each radio to ensure it is operation correctly as well as put away the radios (portables on chargers) after operations are completed. See the Radio System procedure in the Rule Book for details.
11. During the course of charter, extra or special event operations, the Foreman will schedule the cars operated in such a manner to avoid setting new peak demands for power. This also applies to scheduling switching moves around the public operation or multiple car operations.
12. The Foreman shall record any operational or safety problems with the operating equipment on the daily inspection sheet or ensure that one is filled out by the person reporting the problem.

13. The Foreman will ensure that at the end of daily operations, all cars used that day are stored properly and all overhead power is shut off.
14. At shift change on the weekends and holidays when the Foreman duties are transferred to the in-coming Foreman, all current and planned operations must be thoroughly discussed with the new Foreman.
15. Remember, the decisions made by the Foreman, like the operation of our equipment, hold the Museum's future in their balance. Practice caution and safety at all times, protect the collection and be sure our passengers get the most out of their visit to the Museum.

Motorman

REPORTS TO: Foreman

DUTIES, RESPONSIBILITIES AND REQUIREMENTS:

1. The Motorman in passenger service must be at least 18 years of age, a valid Museum member, certified to operate the streetcar, and be physically and mentally fit to operate safely.
2. The Motorman must have completed and passed the Museum's operator training program to operate without an Inspector/Instructor or another qualified Operator providing direct supervision.
3. The Motorman is responsible for the safe operation of the streetcar; follow the sequence of operations, knowledge of the equipment being operated and being able to handle any idiosyncrasies of the car's operation.
4. The Motorman should familiarize themselves with the sounds made by the car while running, and if any unusual sound is noticed must endeavor to find the cause and report it to the Foreman (report it even if the fault cannot be found). Also, the Motorman must be observant of the performance of the car and report any deficiencies to the Foreman for noting on the daily streetcar inspection report.
5. The Motorman must request further instruction from the Foreman in any matter not totally understood.
6. While operating, the Motorman should continuously be looking forward and to the left and right front for persons along the way, observing the track and overhead for problems and observe the position of switch points.
7. When operating in reverse, the Motorman shall refrain from conversing with the passengers when the car is in motion and shall remain seated, paying attention to the voltmeter and ammeter and the passengers in the interior of the streetcar.
8. When the streetcar is brought to a stop (unless the stop is only momentary) the Motorman shall move the reverser key to the neutral position. Should the Motorman leave the front platform for any reason the reverser key should be removed from the controller and brought with him/her.
9. The Motorman must always act prudently while operating keeping in mind the future of the Museum is in his/her hands each time the car is set in motion.

Conductor

REPORTS TO: Foreman

DUTIES, RESPONSIBILITIES AND REQUIREMENTS

1. Conductors in passenger service must be valid Museum members, be at least 18 years of age,

- certified to operate the streetcar, and be physically and mentally fit to carry out their duties.
2. The Conductor is in charge of the streetcar.
 3. The Conductor must have completed and passed the Museum's Operator training program to operate without an Inspector/Instructor or another qualified Operator providing direct supervision.
 4. When Operating streetcars Nos. 265, 322, 1239 and 1300 from the rear platform, the Conductor is responsible for the safe operation of the streetcar; follow the sequence of operations, knowledge of the equipment being operated and being able to handle any idiosyncrasies of the car's operation.
 5. For CHSL, when operating from the rear platform of streetcars No. 265 and No. 322, the Conductor is required to stand or kneel on the seat cushion while operating in the area of the Linden Hills station from the north siding switch until one car-length past the south sidewalk of West 42nd Street.
 6. While operating from the rear, the Conductor should continuously be looking towards the direction of travel and to the left and right for persons along the way, observing the track and overhead for problems and observe the position of switch points.
 7. The conductor is responsible for entering passenger count information onto the daily trip sheet located on the streetcar.
 8. The Conductor is responsible for the seating and the safety of the passengers, insuring any carry on belongings such as collapsible baby carriages are stored properly, insuring operational and safety procedures are followed, and follows applicable docent/guide procedures.
 9. The Conductor may be required to act as a docent/guide for our visitors. See job description for Docent/guide.
 10. The Conductor is responsible for throwing track switches and rewiring the trolley pole should it come off the overhead, thus allowing the motorman to remain at the controls for safety.
 11. The Conductor is responsible for maintaining order on the car. All passengers must be seated before answering the request signal to proceed by the Motorman. Members riding on passenger service streetcars should yield their seats to our visitors.
 12. When not otherwise engaged, the Conductor must remain on the rear platform while the car is in motion and on the platform adjacent to the streetcar's rear exit when unloading passengers.
 13. The Conductor shall report for duty at least 15 minutes prior to public operation unless previous arrangements have been made with the Dispatcher or the Superintendent of Operations. The Conductor shall comply with the dress code for operating car crews and staff.

Platform Attendant/Crossing Guard

REPORTS TO: Foreman

DUTIES, RESPONSIBILITIES AND REQUIREMENTS:

1. This is where first and lasting impressions of the Museum and the museum experience are made. It is most important that our visitors are greeted and oriented to what they can expect from their visit and ride.
2. Wear the reflective vest.
3. Use the stop sign to guard the West 42nd Street grade crossing by stopping motor vehicle, bicycle and pedestrian traffic each time a streetcar crosses.
4. Assist with the unloading of passengers if available.

5. Answer questions and direct potential passengers to the station to purchase tokens.
6. The interaction on the platform is most important. It will set the stage for the rest of our guest's stay at the Museum. Don't ignore them when they arrive. **They are the reason you are part of the car crews in the first place.** A group of uniformed people standing in a group apart from the public is a formidable road block to communication. Indeed, this group will appear unapproachable to many of our visitors. This is NOT the impression we want to make on our passengers and visitors. All car crews on the platform should **be sensitive to the public's presence** and respond to their needs. The Foreman should ensure that the car crews attend to our passengers and visitors.

Linden Hills Station Agent

REPORTS TO: Foreman

DUTIES, RESPONSIBILITIES AND REQUIREMENTS:

1. A Linden Hills Station Agent must be a member of the Museum and completed a short course on the operation of the cash register, the physical layout of the station, and an orientation on merchandise sales, where merchandise stock is kept, etc.
2. Sells tokens and passes to passengers who wish to take a ride on our streetcars.
3. Sells merchandise to our visitors.
4. Sells MSM memberships to our visitors.
5. Answers questions and provides information to our visitors.
6. Keeps the station's countertops clear of clutter.
7. Periodically retrieves tokens from streetcar fare box.
8. Turns on display case lights.
9. Checks brochure supply in the racks and replenishes the supply when necessary.
10. Sweeps the station floor and dusts shelves, window sills, etc., if necessary.
11. Informs the Foreman of anything that needs repair, if a light bulb needs replacing, etc.
12. Helps the Foreman with station close-up activities.
13. Monitor the station radio. Call emergency services (911) if necessary.
14. Will not leave the station unlocked and unattended. If necessary, coordinate with the platform attendant to staff the station or have the Foreman lock the door.

Starter/Senior Foreman (S/SF)

REPORTS TO: Superintendent of Operations, General Superintendent or Superintendent of ESL

DUTIES, RESPONSIBILITIES AND REQUIREMENTS:

1. The Starter/Senior Foreman in regular, charter or extra operations (movement) must be a valid member of the Museum, shall be an experienced Foreman and hold a valid Operator's license for the current year.
2. When a Starter or Senior Foreman (S/SF) is designated by an Operating Order or any other Operations notice, the S/SF is the individual having the authority to issue instructions governing the operation and movement of streetcars and is responsible for the coordination and safety of all streetcar movements on the Museum's demonstration railways and associated yard trackage. All persons who wish to move a vehicle on the railway must coordinate that move with the S/SF.

3. The Starter/Senior Foreman will be familiar with the Foreman's checklist (Appendix D) and comply with all the actions and procedures contain on the checklist.
4. All Conductors, Motorman, Docents and other railway operations staff on duty shall report to the S/SF and take their direction from him/her. The Starter/Senior Foreman shall ensure the car crews and docent/guides perform their duties and interface with the public in a safe and professional manner thus insuring our visitors will get the most from their visit to the Museum.
5. The Starter/Senior Foreman is responsible for the assignment and rotation (to provide variety) of qualified car crews to ensure that all crewmembers have a more-or-less equal opportunity to operate a streetcar and perform the other shift positions.
6. For those days when carbarn tours are offered, the Starter/Senior Foreman shall ensure that the carbarn is open and ready to receive visitors and that when available all Barn Docent/guides are on duty.
7. The Starter/Senior Foreman is responsible along with the Inspectors/Instructors for enforcing all rules and procedures including safety procedures and may temporarily suspend any individual who violates them pending an investigation by the Superintendent of Operations.
8. The Starter/Senior Foreman shall coordinate emergency procedures and operations in conjunction with the Safety Officer or his designate.
9. The Starter/Senior Foreman is the focal point and coordinator of all radio communications for the Railway's operation. The S/SF must inspect the portable radios and test each radio to ensure it is operation correctly as well as put away the radios (portables on chargers) after operations are completed. See the Radio System procedure in the Rule Book for details.
10. The Starter/Senior Foreman shall coordinate special tours, as required, for special visitors as directed by the Superintendent of Operations or the General Superintendent.
11. During the course of special event operations, the Starter/Senior Foreman will schedule the cars operated in such a manner to avoid setting new peak demands for power. This also applies to scheduling switching moves around the public operation or multiple car operations.
12. The Starter/Senior Foreman shall record any operational or safety problems with the operating equipment on the daily inspection sheet or ensure that one is filled out by the person reporting the problem.
13. When the special operations are complete the Starter/Senior Foreman will ensure all cars used that day are stored properly and all overhead power is shut off.
14. If for some reason the Starter/Senior Foreman duties are to be transferred to another person, all current and planned operations must be thoroughly discussed with the new S/SF.
15. Remember the decisions made by the Starter/Senior Foreman, like the operation of our equipment, hold the Museum's future in their balance. Practice caution and safety at all times, protect the collection and be sure the public gets the most out of their visit to the Museum.

Instructor/Inspector

REPORTS TO: Superintendent of Safety and Training.

DUTIES RESPONSIBILITIES AND AUTHORITY:

1. The duties and responsibilities of this position are two-fold.
 - a. The first is to instruct and train the Museum's operators and car crews in the proper methods and procedures of street car and Demonstration Railway operation and on a

continuing basis reinforce and retrain these operators in these principles and methods along with all operating rules and regulations.

- b. The second is to **enforce** these principles, procedures, rules and regulations to ensure safety and efficiency of the operation as well as ensuring that each of our visitors has enjoyed their visit and has been adequately exposed to the educational opportunities according to the Museums goals.
2. Enforcement authority is delegated by the Superintendent of Safety and Training, whose authority is delegated by the Museum General Superintendent. The enforcement of rules, regulations and procedures is augmented but not superseded by the enforcement responsibilities of the Superintendent of Operations, their assistants, the Starter/Senior Foreman and Foreman.
3. The instructor/inspector is an individual who has been an experienced member of the Museum's car crews as a Foreman and possesses a fluent working knowledge of the operation of the railways, the operating equipment, the rules and procedures and possesses an ability to convey that knowledge to others. The position is appointed by the Superintendent of Safety and Training who shall periodically review qualifications of the individuals holding this position.
4. The Inspector/Instructor is responsible, along with the assigned Foreman, for enforcing all rules and procedures, including safety procedures and, after consulting with the Foreman, may temporarily suspend any individual who violates them, pending an investigation by the Superintendent of Operations.

Docent/Guide

REPORTS TO: Superintendent of Operations, General Superintendent or Superintendent of ESL.

DUTIES RESPONSIBILITIES AND AUTHORITY:

1. The Docent is an interpreter or guide, and at MSM that takes on special meaning. All of us who are involved with the many projects at the Museum from time to time will act as a docent/guide, however, the people who are generally the interpreters are also involved with operating the antique streetcars of our collection. The docent/guide not only must operate this equipment safely, according to schedule, rules and procedure, but must interpret what is happening and about to happen along with interpreting the collection for our visitors. This is not an easy task, but it can be a most enjoyable and rewarding experience. It is, after all, why our Museum exists today and how it will continue to exist in the future.
2. Hobbyists may not view the Museum in this manner as interests tend toward the streetcars, their operation, where they ran, the railroading experience and a deep interest in the overall industry.
3. However, the Museum, having all these interests as well, must go further. The Museum must interpret all this for the non-hobbyist. These non-hobbyists are the general public and the general public holds the key to our future. In order for our Museum to survive we must interest the public in what we have here. Once this is accomplished we must hold this interest while we interpret, inform and entertain those who were interested enough to visit the Museum.
4. One of our most powerful weapons is the public's thirst for nostalgia. This is where the docent/guide can seize that opportunity to tell the Museum's story. It starts when our guests first enter the Platform area or streetcar and purchase their tokens. In order to create the

proper ambiance the Platform Attendant or other crewmembers must perform their duties by looking and acting as it was when street cars were the fourth largest industry in the United States. This means the good public relations start with the Platform Attendant, Station Agent, Conductor and Motorman, and carry through the docent/guides, other car crews, and the membership.

5. Greeting and communicating with our visitors can happen at any time on the Museum's platforms and property. All crewmembers must be prepared to respond to them by answering their questions, guiding them to the area they are seeking or helping them to understand the importance of our mission by using terms and language they will understand without over explaining the details. Additionally it is the responsibility of the docent/guide to be accurate in his/her interpretation and entertaining.
6. When speaking with our visitors **do not apologize** for any inadequacies you may feel the museum has such as not having a longer ride or some project that may be incomplete. Chances are they won't realize it's a problem until you point it out. **Be positive!** Over the years there have been numerous accomplishments. We have a lot to be proud of here and that should be emphasized. The fact we have a main line ride at all is a major accomplishment. Remember, word of mouth advertising is a most powerful tool to attract visitors to MSM and the place to start this advertising is with the satisfied visitor that had a good time at the museum.
7. There are many ideas and methods that the docent/guide can use to carry out these responsibilities and accomplish the goals. The following will give some of these ideas and methods and help you to formulate your own style of presentation but still follow procedures.
8. The Shop and Car barn Exhibits
 - a. Our car barn and shop is the premier area for guides to perform their duties. Beyond their normal duties and responsibilities to insure safety and to guide the visitors through the barn, the guides, acting as interpreters, hold the key to tying the whole museum experience together for our average visitors. With the streetcars in the barn as a back drop and incidentally *doubling as a form of cue card*, the guides can interpret, in their own style, much of the history of electric railway industry. As stated earlier, this is the place to tell the story of TCRT No. 1300 (our Museum's "mother" car) or of DSR No. 78, the oldest streetcar in our collection. Tell our visitors how the cars were acquired along with the other interesting tidbits of information about the other cars in the car barn. How the trolley companies created amusement parks, how people would ride open cars to cool off on hot summers evenings or to football games in the fall or to baseball games at Lexington Ball Park or Nicollet Ball Park, and how commuters would use these forms of transit to go to work or shopping.
 - b. The tools for the guides to perform their duties in the car barn or on the streetcar are relatively simple and straight forward. In addition to the streetcars themselves there are the information signs, the displays in the ESL car barn and the Linden Hills station, along with the guide's own individual interest will provide plenty of information for an interesting and informative tour. Remember to utilize all the principles discussed previously in conducting the tour. The average time for the car barn tour is around fifteen (15) minutes. Also, there will be questions to answer that will help you to add to the presentation as well as create opportunities for interesting personal observations about the railway industry. Some of the typical questions asked are really quite easy to answer for example:
 - What is the noise under the floor?
Ans. The air compressor for the air brakes
 - Is the motor running under the floor what makes the streetcar go?
Ans. No, it is the air compressor.

- What makes the streetcar go?
Ans. Electric motors or electricity
- What type of electric power are you using?
Ans. 600 volts direct current (DC)
- What is the pole on the roof for?
Ans. It is called the trolley pole and is used to collect the electric current powering the streetcar.
- Where do you get your electric power from?
Ans. We Purchase it from Excel Energy and convert it to 600 volts DC.
- Where do you get your streetcars for your collection today?
Ans. Today the cars are usually found by members or rail fans in various conditions. Generally after being used for another purpose such as a diner, storage building, summer camp, summer cabin, etc.

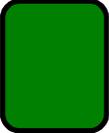
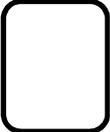
There are obviously many more questions than we have time to discuss here but the above gives a flavor for the type that are asked.

9. While Providing our Ride on our demonstration railways.
 - a. The docent/guide responsibilities of the car crews operating on a typical ride will vary depending upon the time of the year and level of activity during the operating season. During the heart of our operating season (Memorial Day to Labor Day) the motorman and conductor have limited ability to fulfill these responsibilities because our goal is to operate three runs per hour at CHSL and two to three runs per hour at ESL. This is why we limit the CHSL end of line to talk to around five minutes. At ESL the end-of-line talk is replaced with a short 5 to 10 minute tour of the carbarn and brief explanation of the displays contained in the carbarn.
 - b. In forward movement the conductor should respond to questions that may be asked during the ride. In rearward movement on streetcars Nos. 265, 1300 and 1239 the Motorman cannot engage in conversation with the passengers because of the nature of their duties.
 - c. Do not take for granted that your passengers know what is going on during the trip. We become so familiar with our duties we can take for granted that everyone knows what is happening. If you have the chance, tell our guests about it. This can be helpful for those crew members who find it difficult to speak in front of groups. Most of us find it very easy to talk about what makes our electric cars run. Be friendly, encourage questions and make your passengers feel welcome as if they were visiting you at home and you will do fine as a guide. Remember to be accurate in what you report.
 - d. The attention span of our visitors is only a few minutes for informational talks and we do not want to turn them off.
 - e. In our off seasons when the trips are less frequent there is more opportunity to interpret our mission during the ride. Remember the attention span of the visitors and avoid rambling on with details. In most cases our Museum's 15-20-minute trip will still be made and it is still the best forum to elaborate on the electric railway industry.
10. In general, while performing as a docent/guide either in answering questions or in talks, it is better to avoid weighty electric railway terms and information. Keep to the basics. Also, if there is a large number of frequent riders the end-of-line talk should be modified so as not to be repetitive. If there are a few first-time riders it would be better to talk with them separately. Be sure that is indicated to the first-time guests. In fact, give them the impression they will get special attention. It is also helpful to interject some humor in the talks but don't overdo it or do it in a "wise-guy" fashion as this will detract from the presentation.

APPENDIX B

TARGETS

Targets are painted metal signs (approximately 12" by 15") that hang from overhead span wires or bracket arms along the right-of-way. Targets provide a guide to operation along the line. They are not absolute but govern actions by the Operator under normal operating conditions, i.e., locations where power should be applied or turned off, or where speed is restricted. However, if a situation arises which results in reducing the speed of the streetcar because of an obstruction or dangerous situation while operating on the line (e.g., approaching a pedestrian or a fallen tree limb near the track), the overhead targets may be ignored until the obstruction or slow zone is passed and the streetcar regains normal track speed.

COLOR	INDICATION or MEANING
Green 	Power should be applied. Current track conditions, pedestrians, or obstructions in front of or near the car's direction of movement, or other operating procedures/instructions, will govern the actual speed of the car.
Yellow 	Power should be turned off and the car allowed to coast
Red 	Speed restricted to five miles per hour (5 mph) or less unless you are making a car stop.
Red with White "S" 	Marks the end point of passenger operations. At the George K. Isaacs carbarn. During the carbarn open house only stop the car so that the rear or middle door (PCC No. 322) is on the brick walkway.
White 	No meaning and is merely the back of another type of target.

NOTE: Operations and Safety Bulletins and other notices posted on the operations bulletin boards in the carbarns, or instructions given by the Foreman during his or her shift, that are more restrictive than the targets' indication or meaning, will supersede the target indication.

APPENDIX C

Sequence of Operations for CHSL and ESL

(Published Separately)



APPENDIX D

Shift Foreman's Checklist (CHSL and ESL)

(Published Separately)