

Sacramento Valley
Live Steamers Railroad Museum
Safety and Operating Rules

April 2018



Founded in 1968
By David Hall

Sacramento Valley Live Steamers
Railroad Museum
Hagan Community Park

PO Box 273
Rancho Cordova, CA 95741

Safety and Operating Rules

April 2018 Edition

Observance of these rules is required. Only members and guests willing to abide by them will be allowed to operate equipment at the Club track.

All SVLSRM members share responsibility for maintaining safe operations and conditions at the Club facilities.

The Board of Directors thank you for your cooperation.

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This rulebook supersedes and annuls all previous rulebooks.

1. These Safety Rules and Operating Regulations are separate from the By-Laws and may be amended by the Board of Directors.
2. Members and visiting engineers and their guests shall observe these rules and abide by them. Copies of these rules shall be made available to visiting engineers while they are operating on SVLSRM tracks. Visitors may purchase copies of these rules to keep.
3. The specific enforcement of the rules is the responsibility of the Board of Directors. Any person may be removed from a train or from the facility and the use of equipment

within the facility may be restricted if necessary to enforce these rules. The Board of Directors may appoint any assistant necessary to fulfill its duties.

4. The purpose of the rules is to assure fun and enjoyment of the railroad equally for all members, guests, and visitors through safe use and operations. While most of the rules are directed toward operation of trains hauling the public, all members share the responsibility of maintaining a safe operation and exhibit of the SVLSRM facility. Your Board of Directors thanks you for your cooperation. After all, it is your organization, your facility, but only as long as we can provide safe enjoyment for our guests, visitors, and ourselves.

Section 1 - General Procedures

Safety

SAFETY is of the first importance in the discharge of duty. In case of doubt or uncertainty, take the *SAFEST COURSE*.

Visiting Engineers

Visiting engineers, trainmen, and their guests are to observe these rules and abide by them. Copies of these rules shall be made available to visiting engineers while they are operating on SVLSRM tracks. Visitors may purchase copies of these rules to keep. Visiting Engineers and their equipment will be required to register at all meets.

1.01 General Restrictions

All equipment to be run on the club track is subject to inspection by the Trainmaster at any time. Failure to submit to or pass such

inspection may result in removal of the equipment from SVLSRM facilities subject to SVLSRM Trainmaster.

1.02 Speed Limit

No locomotive shall be operated at an excessive speed, and shall not be operated at a speed greater than that at which the locomotive and its train can be slowed and stopped within a reasonable distance, depending on the traffic, track conditions, visibility and weight of the train. Train speed shall not exceed 7 mph. Trains transporting the general public shall not exceed 5 mph. All engines must be run at reduced speeds in congested areas and in areas with close clearance, such as yards, stations, etc.

1.03 Passengers and Visitors

General public, when permitted within the steaming bays, shall be escorted by a

SVLSRM member. General public who need to get close to tracks for photography shall have an escort to keep a lookout for oncoming trains or equipment movement.

1.04 Gauge Requirement

We have two gauges of track. 7 1/2" and 4 3/4" gauge equipment can be used.

1.05 Obligation to Transport

No engineer is obligated to haul any passengers on his train.

1.06 Loading and unloading

All passengers will be loaded and unloaded only at designated passenger stations, or as directed by the crew.

1.07 Cargo Weight

Cargo weight should be evenly distributed between the trucks of each car.

1.08 Mode of seating

Passengers must remain seated, straddling seat, and facing forward, on the cars at all times until the train returns to the station. Arms and legs must be kept inside the cars at all times while the train is in motion.

1.09 Handcars

Handcars and other non-powered vehicles shall operate only at the discretion of the Trainmaster or a board member.

1.10 Food and Refreshments

Passengers shall not take food, drinks, or other refreshments other than water aboard any train. Nor may any person, passenger or crew member, smoke while on board. Dumping of trash while on the train is strictly prohibited.

1.11 Proximity to Tracks

No one shall stand or walk within 5 feet of any track, unless their duties require him to do so. It shall be the duty of any and all SVLSRM members to help keep the public at a safe distance from the tracks.

1.12 Property of SVLSRM Material and Equipment

All SVLSRM owned material and equipment is for use of members and guests at the SVLSRM facility ONLY, and shall not be removed from the facility without permission from the Board of Directors. This includes treated or distilled water, fuel, cars, locomotive, tools, material, etc.

1.13 Conduct

No one under the influence of alcohol, narcotics or drugs of any kind shall be allowed to operate or ride on any train. Anyone consuming any alcoholic beverages,

including beer, or using any illegal drugs or narcotics of any kind shall be requested to cease. Should they refuse, they will be asked to leave the facility. Use of abusive and inappropriate language will not be allowed. All persons exhibiting any type of negative behavior may be subject to ejection from the premises. Members and guests should conduct themselves in such a way that is consistent with a family atmosphere. The use of abusive or threatening language is not permitted.

1.14 Pets

No pets of any kind shall be allowed to run free within the facility. All pets shall be confined on a leash not over 6 feet in length, or inside a crate or pen. The owner of such pets shall be responsible for immediately cleaning up any manure or other disagreeable mess caused by such pet. Any violation of this rule may result in both pet and owner being asked to leave the facility. Animals

may not ride on public passenger trains. Owners may be asked not to have their animals ride at the discretion of the station master. Animals must be kept away from any areas of food preparation or consumption.

1.15 Children

Parents or Guardians shall be responsible for the safety, supervision, and behavior of their Children at all times.

1.16 Fuel storage

All gasoline must be stored in the fuel cabinet by boxcar.

Section 2- Equipment and Inspection Logs

2.01 Ashpan

Steam boilers burning solid fuel shall have an ashpan constructed and installed to prevent dropping of burning ashes or fuel

along the right-of-way. Except in emergencies, ashes shall be dumped only at the steaming bays. Engineers shall be responsible for immediately extinguishing burning ashes dropped on the track, wherever they are dropped.

2.02 Daylight Operations

All Locomotives shall be equipped with a whistle, horn, or other sounding device producing audible signals. Such sounding devices shall be powerful enough to be heard distinctly for at least 150 feet. All locomotives shall carry a red flag and whistle to warn traffic of emergencies and for passing on visual and audible signals.

2.03 Night Time Operations

All locomotives operating after sunset shall be equipped in the following manner:

- Working headlight.
- Lighted cab on steam engines.

- Marker light or lantern on the rear of the last car.
- Conductor/Brakemen shall have a lighted lantern or flashlight suitable for making hand signals.

2.04 Periods of Low Visibility

All trains running during periods of low visibility or after sunset shall be equipped with a marker light, or with lights on the rear of the last car, displaying a red light to the rear and visible for at least 150 Ft.

2.05 Safety Chains

A chain, cable or draw bar must be installed between any car on which the Engineer is riding separate from his locomotive. A chain or draw bar must also be installed between any fuel car or cars and the locomotive which it supplies. Some safety device is recommended for all cars.

2.06 Wheel Dimensions and Coupler Heights

All wheel dimensions and coupler height standards shall conform to IBL standards. A copy of these standards can be found on the SVLSRM webpage.

2.07 Emergency Shutdown

Steam boilers shall have the facility to shut off heat immediately in case of emergency. Oil fired (diesel, heating oil, kerosene, etc.) and LPG (liquidized petroleum gas) gas fired boilers shall have a valve or other means to stop the flow of fuel to the burner. Solid fuel (coal, charcoal, nutshells, fruit pits, etc.) fired boilers shall have a means of dumping the fire out of the fire box or smothering the fire with steam, water, carbon dioxide, etc.

2.08 Water Pumps and Injectors

All steam locomotives shall have at least two devices for transmitting water to the boiler.

At least one of these devices shall be operable when the locomotive is not in motion.

2.09 Sight Glasses

Steam boilers shall have a water level gauge located such that water at the bottom of the glass is covering the crown sheet by at least 5/8" for 1 1/2" scale (or larger) when the locomotive is level. The top of the water glass fitting must be connected to the top of the boiler, not the turret. The sight glass must be capable of being "blown down" and shall be checked during the steam up process.

2.10 Brakes

All locomotives or engineers' riding cars shall have the means to do a control stop in a safe manner.

2.11 Safety Valves

Steam boilers shall have at least 2 safety valves set to operate within 10 pounds (psi)

of each other. Under no operating conditions shall the safety valves allow the operating pressure to exceed a pressure 5 percent greater than the maximum boiler operating pressure. Safety valves must release and reset without the aid of the engineer.

2.12 Boiler Inspection

All steam boilers operated at the SVLSRM facility shall carry a current boiler inspection tag, or card. This tag or card shall state the hydrostatic test pressure, the maximum operating pressure and the safety valve settings. The SVLSRM will accept valid current boiler inspection tag or card issued by recognized Live Steam Clubs for operation of steam locomotives and equipment on the SVLSRM facilities.

2.13 Duration of Inspection

Boiler tags or cards are valid for a period not to exceed 12 months from the date of issuance. Pressure tests for the purpose of tag

or card shall be conducted under the supervision of an appointed member.

2.14 Inspection Standards

During annual boiler testing, a boiler shall meet the allowable leak limits at a minimum of 150 percent the maximum boiler operating pressure. Boilers shall not exhibit any bulging or displacement of sheets, firebox, barrel, or pressure surfaces and shall not produce unusual sounds or sudden drops in pressure during pressure build-up or at maximum test pressure. All new boilers, or boilers having undergone any repair, modification or alteration to any portion of the pressure vessel including but not limited to: shell, stays, tubes, tube sheets, crown sheets, or dome, shall be subject to re-testing. Engineers shall produce evidence of inspection upon request.

Section 3 Non-Public Operating Procedures

3.01 Responsibilities of the Engineer

The Engineer is responsible for the safe handling of the train and the cars at all times. They must be in close cooperation with all other operating personnel, observing all rules and signals (whistles, hand, flag or light) given by the conductor and stationmaster. They must run their engine in conformance with SVLSRM safety rules at all times. They must see that any SVLSRM equipment used by them is returned to its proper storage space at the end of their run, unless another engineer takes over the responsibility of such equipment and agrees to see that such equipment is properly stored after its use.

3.02 Responsibilities of the Conductor

Each conductor shall have a whistle (police type) and a red flag or light in their possession at all times while acting as conductor. They shall assist in loading or unloading passengers on the train. They shall be certain that all passengers on their train have been informed of the safety rules before signaling to the engineer to proceed from the station. They shall enforce all passenger safety rules while the train is in motion. They shall enforce rules and shall prevent any passengers from throwing any trash, garbage or other refuse from the train along the right-of-way. They shall align all switches (turnouts) for the mainline after use of such switches by their train. They shall assist the engineer when necessary and shall call for help when necessary to enforce any rules.

3.03 Duties of Trainmaster

The Trainmaster or designee shall be responsible for the condition of all railroad rolling stock and preventative maintenance of all SVLSRM owned rail equipment. They will keep accurate records of maintenance and modifications to rolling stock and oversee boiler testing. They shall check wheel gauges for compliance with established standards on members' and visitors' equipment. The Trainmaster or designee is responsible for the issuance of all SVLSRM rail equipment for use at any and all activities.

3.04 Unloading/loading

Locomotives and equipment shall be unloaded and loaded only at the facilities provided at the steaming bays. All vehicles shall be removed from the loading area as soon as possible after loading and unloading. Small equipment may be unloaded/loaded at any siding.

3.05 Departure from Steaming Bays

Prior to steam locomotives departing their bay for the main line, the following shall be accomplished:

- Steam shall be brought up to operating pressure.
- Safety valves and pressure gauges shall be checked to ensure they are operating correctly.
- Water glasses shall be blown down.
- Feedwater devices shall be checked to ensure they are in proper working order.
- Whistle or other audible signaling device shall be tested to ensure they are operating correctly.
- Brakes shall be checked and operating correctly.

3.06 Direction of Movement

Shall be determined by the Trainmaster.

From 'Passenger station' Eastbound towards

the box car, or Westbound towards Hagan Park.

3.07 Separation of Trains

Any engine following another train must keep at least 75 feet behind the train ahead. When entering mainline, yielded to mainline traffic.

3.08 Signals

Trainmen should use hand signals whenever practical. Several trainmen in the same area using whistles can easily be mistaken for one another. The use of hand signals makes it necessary for the engineer to see the signal intended for them, eliminating the possible error and danger of mistaking another trainman's whistle for that of their own. Hand signals may be given with the hand, flag or light, as follows...

- A. "STOP" . . . Swing at arm's length down from the shoulders across the track.

- B. “PROCEED” . . . Raised and lowered vertically.
- C. “BACK UP” . . . Swung vertically in circles across the track.
- D. “REDUCE SPEED” . . . Hand or lantern above head with slight motion of hand side to side.

3.09 Whistle

Engine whistle signals shall be used by the engineer whenever practical to give, ask for, or acknowledge information about train movement. When double heading, the lead engine will give the whistle signals when possible. The whistle shall not be used unnecessarily. The whistle is a signaling device and should be used as such.

3.10 Engine Whistle Signals

“O”: denotes a short blast

“_” : denotes a longer blast

- A. O Apply brakes; STOP

- B. OO Answer to any signal not otherwise provided for.
- C. OOO When standing backing up.
- D. OOOO Call for signals.
- E. OO Release brakes; proceed.
- F. _ _ _ _ Flagman return to train.
- G. _ OOO Flagman protect rear of train.
- H. _ _ O _ Approaching public crossing, area of restricted visibility or a train on adjacent track.
- I. OOOOOOOO (8) Warning to people or animals on track; general alarm.

3.11 Conductor/Trainman Whistle Signals

Communicating signals are used by the conductor when necessary to convey a message to the engineer while the train is running. Communicating signals are blown on the conductor's whistle, loud enough for the engineer to hear above the noise of the engine.

Communicating signals given by Conductor/
Trainman:

- A. OO When standing, proceed.
- B. __ When running, STOP.
- C. OOO When standing, back up.
- D. OOO When running, stop at the next station.
- E. OOOO When running, reduce speed.

3.12 Color Signals, Lights

- A. Red – STOP
- B. Yellow – APPROACH
Proceed with caution; prepare to stop at next signal.
- C. Green – PROCEED

Double Head Signals:

- D. Red over Yellow – DIVERGING
APPROACH
proceed on diverging route at reduced speed

E. **Yellow over Yellow – APPROACH
DIVERGING**

Proceed at reduced speed, prepare to take diverging route at next signal.

3.13 Backing

Any train or engine about to back up must give the correct signal. All trains or engines backing up shall run at reduced speeds.

Engineer must have a clear view 50 feet behind the rear car to back up without a Conductor/Brakeman. Otherwise, a Conductor/Brakeman is required to walk 50 feet behind the rear car with a red flag. Any train of 7 or more cars is required to have a Conductor/Brakeman to walk 50 feet behind the rear car with a red flag.

3.14 Approaching Stopped Trains

An engine approaching a stopped train on the same track must come to a complete stop no less than 50 feet from the stopped train. The

stopped train may then be approached slowly with caution.

3.15 Stopping

During heavy traffic no stopping on the mainline with exception for an emergency or signal. Any train that is stopped or fouling on the mainline must call out a flagman to protect to the rear with a red flag or light that may be clearly seen by a following engineer for a distance of at least 150 feet.

3.16 Propane Fueling

The Trainmaster and his appointees are allowed to fill approved propane tanks. All filling must be done at least 10 feet from the round house door. Round house door must be closed.

3.17 Access to Round House

Access to the round house shall be available to all members by the the board of directors during members run days and events.

3.18 SVLSRM Owned Equipment

Any member wishing to use any SVLSRM owned rail equipment at the facility must make this request to the Trainmaster or appointee(Article IV, Section 11 of By-Laws). The member must report to the Trainmaster or appointee any damage or operational problems that occurred while in their care at the time of the equipment return. The member must return the equipment to the location from where it was issued.

3.19 Bad Order Cards

Equipment that is taken out of service shall be tagged for cause. Tagged equipment must not be operated or coupled to any engines or cars except for repairs or corrections. The bad order card shall not be removed until repair is fixed.

Section 4 Public Run Days and Passenger Transport

4.01 Qualifications of Crew

Trains hauling General Public must be operated by qualified Engineers and Conductors who are members of SVLSRM.

All operating personnel, while on duty, shall have a copy of these operating rules in their possession or on the train.

The Board of Directors may restrict or suspend from duty any operating personnel who consistently violate safety rules.

Qualifications/Restrictions of an SVLSRM Engineer

- 18 years of age or older.
- Member of SVLSRM in good standing.

- Passes a current Written Qualification test showing knowledge to operate specific locomotive (steam, diesel, etc.).
- Passes a current Practical Examine demonstrating the judgment and ability to competently operate specific locomotive (steam, diesel, etc.).

4.02 Requirement of Conductor

All trains hauling passengers shall have at least one qualified Conductor on the last car of the train, or facing backward on the rear seat of the Engineer car. It shall be their responsibility to protect the rear of the train and to assist the Engineer in the operation of the train. Each Conductor on duty shall have a whistle (police type) and a red flag or light on the train.

Qualifications/Restrictions of an SVLSRM Conductor

- 15 years of age or older.
- Member of SVLSRM or child of SVLSRM member in good standing.

- Passes a current Written Qualification test showing knowledge to supervise passengers and scale railroad equipment.
- Passes a current Practical examine demonstrating the judgment and ability to competently and safely supervise passengers and scale railroad equipment.

4.03 Length of Train

Trains carrying the general public shall not exceed 100 feet in length over all, exclusive of locomotive and tender or other motive power.

4.04 Responsibilities of

Stationmaster

The Stationmaster will have complete charge of the Station. The Stationmaster shall have a whistle (police type), red flag, and flashlight in their possession at all times while acting as a Stationmaster. They shall supervise the loading and unloading of all

passengers at the passenger station. They shall discreetly refuse passage to passengers who obviously cannot fit or sit safely on a passenger hauling car. They shall make certain that all passengers have been advised and understand the safety instructions before the train leaves the station. They shall work in close cooperation with other operating personnel to keep passenger-hauling trains moving without causing congestion on the mainline.

Qualifications/Restrictions of an SVLSRM Stationmaster

- 18 years of age or older
- Member of SVLSRM in good standing
- Passes a current Written Qualification test showing knowledge to supervise passenger, scale railroad equipment and the requirements of a StationMaster
- Passes a current Practical examine demonstrating the judgment and ability to competently and safely supervise

passengers, scale railroad equipment and requirements of a StationMaster

4.05 Operations Director

All passenger operations shall be under the authority and guidance of the assigned Operations Director for that day.

The Operations Director (OD) position shall be established for every run day during which public rides will be provided. The OD should be a Board Director or a member with serious regard with the ability to fulfill the duties as described below.

- A. Determine that the track and equipment to be used have been inspected and are in safe operating condition.
- B. Carry an operating two way radio, and insure the Stationmaster and each Conductor on every passenger train also have radios operating on the same channel.

- C. Verify the qualifications of all train crews and the Stationmaster.
- D. Oversee the proper filling out of the Stationmaster, Conductor, and any incident reports.
- E. Respond as quickly as possible to any notification of an injury, derailment, collision, or other occurrence which will require an incident report entry on the Conductor's log.
- F. Observe and monitor operations to insure that all safety rules are obeyed including, but not limited to passenger loading, speed limits, following distances and passenger conduct.
- G. The Operations Director (OD) shall not fill any other positions other than relief for the Stationmaster on a short term basis (such as bathroom break) so he or she can be quickly available if needed.

4.06 Riding Cars

All riding cars shall have fixed seat(s) or bench to haul the public. Safety chains will be installed on all cars and locomotives carrying the general public. When the club-owned bench cars are loaded, it is recommended max 5 people based on weight and size at the discretion of the StationMaster. All passengers are required to wear shoes or sandals. No skate shoes are permitted.

4.07 Gondola Cars

The use of SVLSRM gondola cars will not be permitted for carrying the general public. Bulky items okay.

4.08 Nature of Locomotion

Trains carrying the general public can be double headed; no helper engine can be elsewhere in the train, or pushing on the rear of the train.

4.09 Brake Requirements - Large Trains

Any train consisting of more than 7 cars available for passengers shall have at least one half of the cars equipped with operable brakes, such brakes to be operated by the engineer from the locomotive.

4.10 Passenger Train equipment

Each public passenger train shall be equipped with proper documentation materials i.e.; clip board, Conductor report, incident/accident forms, operable writing pen, whistle, two way radio, red flag, and current rules book.

4.11 Conduct of Passengers

The Stationmaster and all members of every train crew of any train hauling the public shall ascertain that all passengers are informed of passenger safety rules before the train leaves the station.

Passengers shall remain on the train during unscheduled stops unless otherwise directed. Engineers and Conductor are responsible for orderly passenger conduct.

The train crew shall inform the passengers to:

- A. Remain seated facing forward at all times while the train is in motion.
- B. Remain seated on the train until it returns to the station.
- C. Not to lean out or reach for anything along the right-of-way while the train is in motion.
- D. Keep hands and feet within the boundaries of the riding car at all times while the train is in motion.
- E. Not to yell or scream while riding on the train, except in an emergency.
- F. Do not lean over or turn around while taking pictures when the train is in motion.

G. Anyone disobeying these rules may be asked to leave the facility.

4.12 Boarding of Passengers

Passengers of the general public shall board and disembark only at the SVLSRM Depot or other locations as approved by the Board of Directors (i.e., as during public open houses, club meets, etc.) Private passengers may embark or disembark anywhere along the track, but only if proper safety procedures are followed.

4.13 Accident Guidelines

To insure that members of the SVLSRM are aware of the proper procedures to follow in the event of the accidental injury of a passenger or other visitor to our facility (or any sanctioned SVLSRM activity), the following guidelines are to be followed.

4.14 Safety First

Safety is always first. The accident that is prevented is always handled correctly.

4.15 Steps In Case of Injury

- A. Secure equipment to prevent movement and additional injury for all passengers.
- B. Get help immediately if needed by radio or (send flagman or another passenger back to the caboose, station or steaming area).
- C. Apply First Aid if necessary (within your ability).
- D. Obtain the name and address of the injured party.
- E. Obtain list of all passengers, name, address, phone numbers, and email. Secure the same for all witnesses and a statement of the same.
- F. Obtain a statement from the train crew members.
- G. Complete an Incident Report and file it, and the witness and crew statements,

- with a Board member as soon as possible.
- H. If the injured person requests information about the organization's insurance, do not provide any of the details except the name and address of the secretary and request that the inquiry be in writing. PO Box 273 RANCHO CORDOVA, CA 95741-0273
 - I. If the incident is considered serious enough, a Board member should inform the insurance company of a possible claim.
 - J. In the event the incident is further pursued in writing by the injured party, the Board should notify the insurance company immediately.
 - K. Do not, under any circumstances, admit fault or liability!

Notes:



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