## FEATHER RIVER RAIL SOCIETY

## **OPERATING DEPARTMENT**

# **STANDARD OPERATING PROCEDURES**

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# SAFETY

#### SAFETY IS OF THE FIRST IMPORTANCE IN THE DISCHARGE OF DUTY

#### OBEDIENCE TO THE RULES IS ESSENTIAL TO SAFETY AND IS REQUIRED

The rules contained in the General Code of Operating Rules and the Code of Safe Practices are the rules essential to the safe operation of the Feather River Rail Society.

### General Code of Operating Rules:

All volunteers must have a copy of the General Code of Operating Rules.

Refer to the Feather River Rail Society, Safety and Health Program (SP-01) and the Code of Safe Practices.

Refer to your personal copy of this Standard Operation Procedures.

All Operating Department Members are required to adhere to all Rules and Regulations.

### Code of Safe Practices:

This is the Safety Book for all employees and Volunteers at the FRRS All Members are required to adhere to all Safety Rules and Regulations.

### Code of Ethics:

This Code of Ethics is for all employees and Volunteers at the FRRS All Members are required to adhere to the Code of Ethics.

### **Policies and Procedures:**

This is the Policy and Procedures for all employees and Volunteers at the FRRS All Members are required to adhere to all Policies and Procedures.

#### **GENERAL:**

All persons (employees/volunteers) shall follow these safe practices and rules, render every possible aid to safe operations, and report all unsafe conditions or practices to the Supervisor, Foreman or Superintendent.

Supervisors, Foremen, and Superintendent shall insist on employees and volunteers observing and obeying every rule, regulation and order as is necessary to the safe conduct of the work, and shall take such action as is necessary to obtain observance.

All employees and volunteers shall be given accident prevention instructions.

# SAFETY

Anyone known to be under the influence of drugs or intoxicating substances that impair the employee or volunteer's ability to safely perform the assigned duties shall not be allowed on the job while in that condition.

Horseplay, scuffling, and other acts that tend to have an adverse influence on the safety or well being of the Visitors and Members around the museum shall be prohibited.

No one shall knowingly be permitted or required to work while the employee's or volunteer's ability or alertness is so impaired by fatigue, illness, or other causes that it might unnecessarily expose the employee, volunteer or other persons to injury.

Employees and Volunteers shall not enter manholes, underground vaults, chambers, tanks, silos, or similar places that receive little ventilation, unless it has been determined that it is safe to enter.

Confined Space procedures should be used at all times.

Employees and Volunteers shall be instructed to ensure that all guards and other protective devices are in proper places and adjusted, and shall report deficiencies promptly to the foreman or superintendent.

Workers shall not handle or tamper with any electrical equipment, machinery, air or water lines in a manner not within the scope of their duties, unless they have received instructions from their foreman or supervisor.

All injuries shall be reported promptly to the foreman or supervisor so that arrangements can be made for medical or first aid treatment.

When lifting heavy objects, the large muscles of the legs instead of the smaller muscles of the back shall be used.

Inappropriate footwear or shoes with thin or badly worn soles shall not be worn. All members of the Operating Department are required to wear Heavy, High top Work boots to protect the feet and to prevent ankle injuries.

Materials, tools, or other objects shall not be thrown from buildings, structures or equipment.

Work shall be arranged so that persons are able to face the ladder and use both hands while climbing.

Gasoline shall not be used for cleaning purposes.

## Volunteer Policy and Manual:

All volunteers shall have a copy of the volunteer policy and manual.

All volunteers shall read and understand the volunteer policy and manual.

The volunteer Policy and Manual are separate documents not included in this SOP.

## Use of Tools and Equipment:

All tools and equipment shall be maintained in good condition.

Damaged tools or equipment shall be removed from service and tagged "DEFECTIVE".

Only appropriate tools shall be used for the job.

Portable electric tools shall not be lifted or lowered by means of the power cord.

Electric cords shall not be exposed to damage from vehicles.

## Machinery and Vehicles:

Only authorized persons shall operate machinery or equipment.

Loose or frayed clothing or long hair, dangling ties, finger rings, etc., shall not be worn around moving machinery or other sources of entanglement.

Machinery shall not be serviced, repaired, or adjusted while in operation, nor shall oiling of moving parts be attempted, except on equipment that is designed or fitted with safeguards to protect the person performing the work.

Persons shall not work under vehicles or equipment supported by jacks or chain hoists, without protective blocking that will prevent injury if jacks or hoists should fail.

# **Electrical SAFETY**

When appropriate, lock-out procedures shall be used.

EMPLOYEE: For the purposes of this description, any paid employee of the Museum or recognized volunteer in the performance of authorized duties.

## Car Attendant

Employee in passenger service tending to the public's safety.

Will be required to answer questions from the public, assist the public or assist passengers on and off of the train. Shall be required to keep the public informed about safety around moving trains and equipment.

## Flagman or Crossing Guard

Employee providing flag protection and/or Crossing protection at work locations, road or pedestrian crossing.

### Switch Tender

Employee tending a track switch, his/her duty is to throw switch from one position to another position as directed by a Supervisor, Foreman, Conductor, or other employee in charge.

### Student Brakeman

Employee who is being instructed in the duties of a Brakeman.

Shall be capable of attaining the position of Brakeman.

### Brakeman

Employee who has qualified as a Brakeman as prescribed by the qualification book.

Handles train movement, throws switches, couples cars, connects air hoses, gives signals to the Engineer or Fireman, sets and releases brake handles on cars, cares for equipment.

(Under the direction of the Conductor)

### **Brakeman Instructor**

Instructs a Student Brakeman in handling train movement, throws switches, couples cars, connects air hoses, gives signals to the Engineer and/or Fireman, sets and releases brake handles on cars, cares for equipment.

(Under the direction of the Conductor)

Shall be capable of attaining the position of Student Conductor.

### Student Conductor

Employee who is being instructed in the duties of a Conductor. Shall be capable of attaining the position of Conductor. (Under the direction of the Conductor)

### Conductor

Employee in charge of train or yard movement.

#### Responsible for making all air brake tests on all trains under his/her control

Gives signals to Fireman and/or Engineer.

Responsible for keeping work records of train crews

## **Conductor Instructor**

Instructs a Student Conductor in handling train movement, air brake tests, gives signals to the Engineer or Fireman, sets and releases brakes.

(Under the direction of the Supervisor, Superintendent of Operations or Trainmaster)

Shall be capable of attaining the position of Student Fireman.

## Student Fireman

Employee who is being instructed in the duties of a Fireman.

Shall be capable of attaining the position of Fireman.

## Fireman

An employee in charge of maintaining steam pressure in a steam locomotive, and the Engineer's assistant on a diesel locomotive.

Employee who's duties include: passing signals to the Engineer, care and servicing of the locomotive. Should have knowledge of the operation of the locomotive. Shall know how to make air brake tests.

Knows how to set train into Emergency Braking.

Shall be capable of attaining the position of Student Yard Engineer.

## Fireman Instructor

Instructs a student fireman in his/hrs duties to include: passing signals to the Engineer, care and servicing of the locomotive. Should have knowledge of the operation of the locomotive. Shall know how to make air brake tests.

## Student Yard Engineer

Employee who is being instructed in the duties of a Yard Engineer.

Shall be capable of attaining the position of Yard Engineer.

(Under the direction of the Yard Engineer Instructor, Supervisor, Superintendent of Operations, Trainmaster, or Road Foreman of Engines.)

## Yard Engineer

Employee in charge of and operates a Locomotive in Yard Service

## Yard Engineer Instructor

Employee in charge of and operates a Locomotive in Yard Service instructing a Student Yard Engineer.

## Rent-A-Locomotive Engineer

Employee who has demonstrated the ability to work with the public in the rental program.

Must be a Qualified Yard or Passenger Engineer.

## Student Passenger Engineer

Employee who is being instructed in the duties of a Passenger Engineer.

Shall be capable of attaining the position of Passenger Engineer.

(Under the direction of the Passenger Engineer Instructor, Supervisor, Superintendent of Operations or Trainmaster, or Road Foreman of Engines.)

## **Passenger Engineer**

Employee in charge of and operates a Locomotive in Passenger Service.

## Passenger Engineer Instructor

Employee in charge of and operates a Locomotive in Passenger Service instructing a Student Passenger Engineer.

## Supervisor or Foreman

#### Supervisor:

Employee in charge of Train Crew, or as directed by Superintendent of Operations or Trainmaster.

### Foreman:

Employee in charge of Work Crew

## Superintendent of Operations

Employee authorized to be in charge of all trains and train related operations.

## Trainmaster

Responsible for monitoring employees adherence to the rules.

## Yardmaster

Employee designated as being in charge of yard operations.

## Road Foreman of Engines

Has final authority to Qualify or Disqualify Student Engineers.

## Crew Caller

Employee who is in charge of calling, scheduling or dispatching train or yard crews.

## Dispatcher

Employee who is in charge of dispatching trains.

# TRAINING

Training is required for each of the Employees and Volunteers working within the Operating Department.

Throughout the operating season, training is handled in several manners. This can be On-the-Job training, extra classes, training in rule changes, operating bulletins, or other items related to the operations of the Western Pacific Railroad Museum.

The annual crew training is held prior to the start of each operating season. The annual training consists of a hour day of training of several aspects of the operation of the Passenger Train Service.

During the Operating Season, training is an on-going event as training is given to each member, new member, member returning to the operating department, member being promoted, or as a refresher.

## ANNUAL TRAINING:

A typical agenda for the 6 hour training class is as follows:

#### Rules Book:

Two hour class in the Rules Book, Rules Book Test, Liability Release and Bulletin Book.

During this two hour class the Rule Book is covered, showing the various rules that each employee and volunteer is expected to follow and why. The Rules Book test is given to each person who will be an active member of the Operating Crew.

## Volunteer Policy and Manual:

A review of the volunteer policy and the volunteer manual is provided during annual training.

## Rules Book Test:

A Rules Book test is given to each member of the operating department to make sure that they understand the working rules and safety issues. All Members of the Operating Department are required to take and pass the Rules Book Test annually. This includes all Positions.

## Liability Release:

All members of the museum are required to sign a liability release and have it on file with their records in the operating department.

## Bulletin Book:

Explain the bulletin book, where to find it and what is contained in it.

Bulletins are placed into the Bulletin Book as needed by the Management and Operating Supervisors of the Museum.

### Sign In or Duty Log Book:

All Operating Department members shall sign into the Duty Log Book the date and time started on duty and the date and time off duty. (Time shall not exceed the maximum hours of service rules)

#### **Daily Work Reports:**

Daily Work Report sheets. Where to find them, how to fill them out, and where to place them once you have completed filling them out.

### Hand Signals:

Demonstrate Hand Signals.

Come to me. Go away from me Slow. Stop. Cutting in the Air (Attaching the Air Hoses). Stretching the Joint. Setting Brakes. Releasing the Brakes. Shove to Clear the Crossing.

### Flagging:

Red Flag. Blue Flag. Blue Lock.

#### Radios:

Use of radios. Use of signals on radio. Radio Procedures.

### **Qualification Book:**

Why we do what we do. Gives the guidelines for the qualification of each position on the operating crew. Qualification Cards. Signing up for crew duty.

#### Walk Down of Train:

Walk throughout train, showing the locations of equipment, operation of Brakes, operation of Brake Valves, location of Brake Valves, Hand Brakes.

#### Switches:

Tour of yard. Location of Switches. How to throw a switch. (Locks and Keepers)

#### Hands on:

Getting on and off moving equipment. Making joints. Setting the Air. Setting hand Brakes. Positions (locations) on and around the train.

### **Operating Department Certified Personnel List**

Shows a listing of all Certified Operating Department personnel and their positions.

Shows the date qualified in his/her current position in the operating department.

A List of Certified Personnel will be posted in the Operations Office. This list will be updated during various time through the year and new updates will be posted.

Questions regarding the certified personnel list may be to the attention of the Superintendent of Operation and/or the General Superintendent.

### Crew Sign up list

The Crew Caller is responsible for the crew sign up list. This list is the schedule that volunteers use to sign up for service to the train crew for any given day or time.

This list can be a hared copy or electronic copy of a schedule that indicates the volunteers name, date, time and position that they will be available to work at the museum on the train crew.

Volunteers are expected to perform their duties on a regular scheduled and timely basis. If expecting to be absent from a scheduled duty, volunteers should inform their supervisor as far in advance as possible so that alternative arrangements may be made.

Volunteers are encouraged to find a substitute for any upcoming absences which might be filled by another volunteer. Such substitution should be taken following notification to the supervisor and care should be taken to find a substitute who is qualified for the position. Substitutes may only be recruited from those who are currently enrolled as volunteers with the Feather River Rail Society.

## **PROMOTION SYSTEM**

#### LINES OF PROGRESSION:

Car Attendant Flagman or Crossing Guard Switch Tender Student Brakeman Brakeman **Brakeman Instructor** Student Conductor Conductor **Conductor Instructor** Student Fireman Fireman **Fireman Instructor** Student Yard Engineer Yard Engineer Yard Engineer Instructor **Rent-A-Locomotive Engineer** Student Passenger Engineer **Passenger Engineer** Passenger Engineer Instructor

The Operating Department Entrance and Service Requirements Book (Qualification Book) gives all of the details on the entrance and service requirements to enter and remain in the Feather River Rail Society Train and Engine Service.

The promotion system is based on this book and will be followed by all members of the Operating Department.

# RECORDS

There are several records that need to be keep during the course of the work at the FRRS.

## TRAINING:

Training records need to be kept to show that each member has received training.

These training records can be any of, and/or all of the following:

Attendance Records. Rule Books Tests. Hours of Service Records. Qualification Cards.

### WORK REPORTS:

Work Reports are records that show the amount of time and work performed at the Museum by the members.

This may seem like an unnecessary record, but it is most important. This record gives the museum a record of the work performed on items at the museum, provides a record(s) of the hours that members spend working at the museum, and can provide a historical record of our museum.

These records can also be used to show what is being done at the museum to obtain grant money.

Examples of Work Reports are shown in the Appendages in the read of this manual.

## **CONDUCTORS REPORT**

This report is filled out by the Conductor for each train to show time worked by any member of the crew.

This report will be filled out for:Yard Switching.Passenger Trains.Special Train Movement.Any time a train crew is assembled for the operation of a train.

Examples of Conductors Reports are shown in the Appendages in the read of this manual.

# **OPERATIONS**

#### General:

The Operations Department of the FRRS operates passenger trains from Memorial Day Weekend through Labor Day Weekend on Saturday, Sunday and other Holidays.

They also operate on Rail Photographer Day (Photo Run Bys) and two Saturday evenings during December. (Santa Train)

Normal weekend operations consist of a five car Caboose Train used for the guests of the Museum. The Caboose Train is decorated during December with Christmas Lights and is run on two Saturday Evenings as the Santa Train.

Railroad Days: The City of Portola holds its annual Railroad Days celebration each year during August-September. This is a community event in which the Museum runs Special Passenger Trains.

# No students are allowed to operate as Brakeman, Conductors, Fireman or Engineers during this event.

Special Trains:

These are trains that are run on special occasions and for special groups, and tour groups.

#### Weekends:

Normal weekend operations consist of a five car Caboose Train.

The operating crew of this train consists of:

A Conductor, A Engineer, A Fireman, A Brakeman, One or more Car Attendants, There may be any number of students in these positions. One or more Supervisors.

## **OPERATIONS**

Operations start around 9:00 am with a Safety meeting and crew assignment.

The operations of the passenger train start at 11:00 am.

The train schedule is as follows:

11:00 am	
1130	
12:00	
	Beans (Lunch)
	1:00 PM
	1:30
	2:00
	2:30
	3:00
	3:30
	4:02

## Using only Track # 3

Trains originate on Track # 3 in front of the Engine House, They back down track #3 onto the East Lead track, then proceed along the front of the parking lot and around the balloon track, past Malfunction Jct. and into the West lead back to the Engine House on Track # 3. The Locomotive is then uncoupled from the train and ran around the balloon track and coupled back onto the train on Track # 3.

The trip usually takes about five to eight minutes for the passenger, and about ten minutes to run the Locomotive back around and couple back onto the train.

# **OPERATIONS**

### Using only Track # 4

Trains originate on Track # 4 in between the Engine House,(Track #3) and the Outfit cars on Track #5. They back down track #4 onto the East Lead track, then proceed along the front of the parking lot and around the balloon track, past Malfunction Jct. and into the West lead back to Track #4 in between the Engine House, (Track # 3) and the Outfit cars on Track #5. The Locomotive is then uncoupled from the train and ran around the balloon track and coupled back onto the train on Track # 4.

The trip usually takes about five to eight minutes for the passenger, and about ten minutes to run the Locomotive back around and coupled back onto the train.

## Using Track # 3 and Track # 4

Trains originate on Track # 3 in front of the Engine House, They back down track #3 onto the East Lead track, then proceed along the front of the parking lot and around the balloon track, past Malfunction Jct. and into the West lead back to the Engine House on Track # 3.

Locomotive then is uncoupled from the train and ran back down the East Lead track and switched on to Track # 4, where the Locomotive is moved around the train to the West Lead and then switched back to Track # 3 and Coupled onto the Train for the next trip.

The trip usually takes about five to eight minutes and about five minutes to move the Locomotive back around the train.

## **Push-Pull Operations**

Trains originate on Track # 3 or Tack #4 in front of the Engine House. The train is pulled toward the West and when they reach the pedestrian crossing, the train stops and is then pushed backwards to the Engine House (starting point)

Air Hose	An air hose used to transfer train line air from car to car (Brake Line)
Annul	To cancel a Train
Bad Order	Defective equipment. (Normally withdrawn from service and tagged with a Bad Order Tag)
Balloon Track	A loop of track used to reverse the direction of a train, In our case its a part of the track we operate on.
Beanery	The lunch room
Beans	Lunch or Dinner break
Big Hole	An Emergency brake application. To Stop the train in an Emergency.
Blue Flag	A Blue Flag, or light displayed on equipment or track to indicate the presence of workers, On, Under or Between equipment.
Brake Line	See Train Line
Bulletin	A publication used to notify employees and Volunteers of changes to Rules, Procedures, or other Instructions affecting the movement of trains.
Cab	Short for locomotive cab

Car length	A measurement for estimating the space between cars, equal to approximately 50 feet; used for relating distance to a movement of cars; used in radio communications between the Brakeman or Conductor and the Engineer.
Clearance	Permission to occupy a section of track with a train or other equipment.
Conductor	Train crew member responsible for the proper operation of a train.
Consist	Collectively, the cars and locomotives that comprise a train.
Couple	To join locomotives and cars to form a train.
Coupler	A device at the end of the drawbar that physically joins cars and locomotives.
Crew Change	The action whereby one crew replaces or relieves another crew
Cut	A string of coupled cars.
Derail	For a Locomotive or Rail Car to become dislodged off the top of the railhead and dropped onto the ground.
Derailer	A protective device that prevents stored cars in sidings and spurs from fouling other tracks by derailing any car that passes over it.

Dispatcher	The person responsible for directing and routing trains over a defined section of railroad.
Double	to divide a train into sections, which are then moved over the hill individually and reassembled. This movement may be done in yards where there is no room to move the entire train.
Draft Gear	A cushioning device that facilitates drawbar compression by minimizing mechanical shock when the slack is bunched.
Drawbar	The part of the rail car that supports the coupler at one end and a connection to the draft gear at the other end.
Extra	A non-scheduled train or an additional section of scheduled train.
FRED	Abbreviation for <u>Flashing Rear End Device used to</u> protect the rear of the train. (In our case <u>Flapping Rear End</u> <u>Device</u> (Red Flag) )
Flag	To hold a Red Flag to protect the rear of the train or protect the train running through a grade or pedestrian crossing.
Foul	Any train, part of a train, locomotive or equipment blocking or encroaching on a switch or track, preventing the safe movement of another train.
Gladhands	The device that couples two air hoses
Grab Irons	Handholds attached to the sides and ends of cars and locomotives.

Ground Relay	A protective device on a locomotive that trips wherever electrical short circuits are detected.
Head End	The locomotive or front of the train.
Hoghead	The Engineer.
In the Clear	A train or car that has cleared a switch or tracks so that other trains or cars can safely pass the same point.
Independent Brake	The brake control in a locomotive that controls only the locomotive's brakes.
Journal Box	The housing surrounding a journal or friction bearing containing oil-soaked packing.
Knuckle	The pivoting part of a coupler that swings closed upon coupling to interlock with a knuckle on another coupler, must be in the open position for coupling to take place.
Lead Unit	The first locomotive unit in a train consist.
MU	Abbreviation for Multiple-Unit operation, where several locomotive are operated together.
MOW	Abbreviation for Maintenance of Way, term used for persons maintaining track and structures.
On the Ground	Any personnel on the right of way not on board a locomotive or train, or a derailment.

Protection	Any action or device, such as grade crossing signals, necessary for the continued safe operation of trains. (See Flag).
Pull the Pin	To uncouple a car.
Reduction	A brake application.
Retainers	Valves that hold air brake pressure on a car.
Running Light	Locomotives running alone or in MU without railcars.
Sander	A device on a locomotive that applies sand to the railhead immediately before the wheels to improve traction.
Set Out	To place cars into sidings or spurs, often used when referring to removing Bad Order cars from a consist. (see Bad Order).
Switch	A device that allows trains to move from one track to another by diverting or guiding the train wheels as they move through a switch.
Tie Up	To park a train or locomotive for an extended period of time for crew changes or breaks. Also can be Tied Up for the night.
Train Line	Train air brake line, used to control train braking by increasing or decreasing air pressure; decreases in pressure result in increased braking.

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