Southern California Regional Rail Authority



ON-TRACK SAFETY MANUAL FOR ROADWAY WORKERS

Rev 7 July 22, 2025

Prepared by

SCRRA Track & Signal Infrastructure Maintenance Department

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REVISION LOG

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APPROVALS

Changes to this document are reviewed and approved through a multidisciplinary working group tasked to assess efficacy and clarity of Maintenance of Way rule books.

Approval	Reference	Date
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FORWARD

The rules herein govern the operation of all maintenance of way and signal employees, and contractors to the railroad, whose duties require them to work on or about the tracks, or to provide protection for work on or about the tracks. This manual complies with SCRRA SOP 2000.52 Roadway Worker Protection Program (49 CFR 214) and SCRRA's System Safety Program Plan (49 CFR 270).

METROLINK'S SAFETY VISION

Safety is Metrolink's primary concern. We are accountable for the decisions and actions that affect the safety of our passengers and fellow workers.

Through continued use of the operating rules, we can be assured of an optimal level of safety for everyone.

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1.0 Introduction

All employees, regardless of gender, whose duties are affected by them, must comply with these rules. They supersede all previous On-Track Safety Books and Instructions.

ON-TRACK SAFETY IS A **STATE OF FREEDOM** FROM THE DANGER OF BEING STRUCK BY MOVING TRAINS OR ON-TRACK EQUIPMENT THAT IS PROVIDED BY THE OPERATING AND SAFETY RULES, WHICH GOVERN TRACK OCCUPANCY BY EMPLOYEES, TRAINS AND ON-TRACK EQUIPMENT.

The objective of this manual is to provide all employees of the Southern California Regional Rail Authority (SCRRA) and their contractors with the rules, guidelines and policies, which conform to the FRA Regulations concerning Roadway Work Protection. The purpose of these instructions is to prevent accidents and injuries that result from being struck by trains or ontrack equipment while performing duties.

This manual gives the responsibilities of the Roadway Worker, Roadway-Worker-In-Charge, (RWIC), Lone Worker, Watchman/Lookout and Roadway Maintenance Machine Operator, as well as the procedures for providing protection from trains or on-track equipment, clearing of tracks and working in various settings.

This manual was prepared as a guideline, placing all safety, operating rules, procedures and instructions pertaining to On-Track Safety into one document, providing you with easy reference when on or about the track in any roadway worker capacity. Employees providing On-Track Safety for themselves or others must always have an up to date copy of this manual readily available.

The manual will include a copy of the "Right to Challenge" policy from SCRRA, and will be kept with the:

- Maintenance of Way Operating Rules (MOWOR)
- Maintenance of Way Safety Rules (MOWSR)
- Current Metrolink Operating Timetable
- Track Maintenance Manual (TMM)

1.1 Zero Tolerance Policy

ANY of the following WILL RESULT IN YOUR REMOVAL FROM THE PROPERTY

- Safety Training: Failure to have a current SCRRA Railroad Safety Training hardhat decal on your hardhat or valid SCRRA On-Track Safety ID Card.
- RWIC Instructions: Failure to promptly comply with the instructions of the SCRRA Railroad RWIC or Flagman.
- PPE: Failure to wear or use appropriate clothing and PPE as outlined in this Manual.
- Rail: Stepping or standing on the top of a rail.
- Intoxicants: Consuming, being under the influence of or having in your possession any alcoholic beverage, intoxicant, controlled substance, drug or

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medication, other than a prescription medication that does not affect your alertness or judgment, when on railroad property.

• **Electronic Devices:** No electronic devices that can receive or transmit a phone call, text message or email may be used within 25-ft of the nearest running rail (e.g. cell phone, tablet, smart watch).

1.2 Personal Safety Rule

- Personal Listening Devices: The use or possession of personal listening devices, such as (radios, CD, MP3 and cassette tape players) or other devices that may impair your hearing while you are in or near the Foul Zone, is prohibited.
- Horseplay: Do not engage in horseplay, physical altercations, or practical jokes.
 Unless specifically required by your duties or an emergency situation, running or jumping is prohibited.
- **Weapons:** Firearms or other potentially deadly weapons, including knives with a blade in excess of three inches, are prohibited on railroad property.
- Railroad Equipment: Unless authorized and safety-briefed by the RWIC for a job- related purpose, keep off of locomotives, cars and other railroad equipment.

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2.0 Training and Qualification

Training must be conducted annually for all workers and is integral to any safety program.

The contracted agencies responsible for SCRRA RWP training shall provide at a minimum, four hours of in-class training to all individuals who will need to access the SCRRA right of way.

Hazards exist along railroad tracks, not all of which are obvious through the application of common sense without experience and/or training. Employees that have not been trained, become a significant risk to both themselves and others. Employees on SCRRA property will not go near the track until training has been completed.

Training will vary depending on the designation of the employee, as follows:

- Employees/Contractors
- Contractors seeking a SCRRA right-of-entry permit
- Roadway Worker
- Lone Worker
- Roadway Worker In Charge (RWIC)
- Watchman/Lookout
- Machine Operator

Employees should know the designations of others in their group, so that proper On-Track Safety protection can be provided.

Written records must be kept of these qualifications, available for inspection and copying by the FRA, project manager or SCRRA authority when requested.

The term "demonstrated proficiency" is used in this and other sections relative to employee qualification to mean that; the employee being qualified shows sufficient understanding of the subject and can perform the duties in a safe manner for which qualification is conferred.

Proficiency must be demonstrated by the successful completion of a written examination with a minimum score of 90% required.

Each RWP trainee is entered into the SCRRA Industry Safe system with their name, company, photograph, unique RWP training number and date of training.

Upon successful completion of RWP training, each trainee is provided with a photo I.D. card and/or hard hat decal with a matching RWP training number. Proof of training is mandatory for any contractor conducting work activities within the SCRRA railroad right of way.

Roadway Worker - A basic level of training of the On-Track Safety Manual is required, including any specialized training required for particular functions. Any written examination must be passed with a score of 90% or better.

Testing to "demonstrate proficiency" of qualification must be documented. No written examination is required because the requirements can be fulfilled by a practical demonstration of ability and understanding.

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Watchman/Lookouts – will be qualified on On-Track Safety Manual and procedures specific to their positions. They are fully responsible for their own protection and that of other employees; SCRRA requires that they also be trained in the Maintenance of Way Operating Rules (MOWOR) and Maintenance of Way Safety Rules (MOWSR).

Lone Worker – will be qualified on On-Track Safety Manual procedures specific to the position. Lone Workers are responsible for their own protection. SCRRA requires that the Lone Worker be trained in Maintenance of Way Operating Rules (MOWOR), Maintenance of Way Safety Rules (MOWSR), Current Operating Timetable, and territory qualified.

Roadway Worker In Charge (RWIC) - The most critical of responsibilities. Training and qualification will include On-Track Safety Manual for groups of employees, establishment of working limits, the assignment and supervision of watchmen/lookouts, Maintenance of Way Operating Rules (MOWOR), Maintenance of Way Safety Rules (MOWSR), and Track Maintenance Manual (TMM).

Requirements will also include:

- 1. All the On-Track Safety training and qualification required of the roadway workers.
- 2. Content and application of the Maintenance of Way Operating Rules (MOWOR) pertaining to the establishment of working limits.
- 3. Content and application of the rules of the railroad pertaining to the establishment of train approach warning.
- 4. Territory qualification.
- 5. Pass a written examination with a score of 90% or better.

Machine Operators - There is a wide variety of equipment requiring specific knowledge. Additionally, the minimum required qualifications when operating maintenance machines are:

- 1. Training on procedures to prevent a person from being struck by the machine when the machine is in motion or operated.
- 2. Understanding and application of the rules and procedures to prevent any part of the machine from being struck by a train or other on-track equipment on another track.
- 3. Understanding and application of the rules and procedures to provide for stopping machines short of other machines or obstructions on the track.

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3.0 Job Safety Briefings

The term On-Track Safety Job Briefing as defined by the FRA, is used herein as the "Job Safety Briefing".

A Job Safety Briefing is a meeting among all the employees who are involved or will be involved in a particular task or job at the same work site. The job safety briefing must be conducted before performing any task and/or any employee fouls any track.

A JOB SAFETY BRIEFING WILL BE CONSIDERED COMPLETE WHEN EACH EMPLOYEE HAS ACKNOWLEDGED UNDERSTANDING OF THE WORK TO BE PERFORMED, AND THE ON-TRACK SAFETY PROCEDURES AND INSTRUCTIONS TO BE FOLLOWED, BY EITHER SIGNING THE JOB SAFETY BRIEFING FORM OR BY MAKING NOTES FROM RADIO OR PHONE CONVERSATION ON A JOB SAFETY BRIEFING FORM (SEE APPENDIX B: JOB SAFETY BRIEFING FORM).

The SCRRA Safety Risk Analysis form must be filled out after you complete the job safety briefing and before any work can commence. This form must remain on your person until work is completed.

A. Types of "Job Safety Briefings"

 Worker Group or Gang - The Roadway Worker in Charge (RWIC) holds the job safety briefing at the start of the job and again as the conditions, job tasks, equipment changes, and/or locations change. The RWIC will hold a job safety briefing for any new arrivals to the job site.

Additionally, for construction and rehabilitation projects the following procedures must be followed:

- Prior to the required job safety briefing, the Contractor's Superintendent/Foreman and the Roadway Worker in Charge (RWIC) will hold a job safety briefing at the start of the shift and again as the conditions, job tasks, equipment changes, and/or locations change. The Superintendent/Foreman will outline the work to be performed, the location and any associated safety requirements. The RWIC will outline the method of protection to be provided.
- ♦ The Superintendent/Foreman shall have an approved copy of the job work plan available on site. All workers will sign to acknowledge understanding and agreement of both the work to be performed and method of on-track protection. (See APPENDIX D: JOB SAFETY BRIEFING FORM)
- ♦ The RWIC will re-brief all subgroup coordinator(s) as the conditions, job tasks, equipment changes, and/or locations change. Should the subgroup coordinator need to change the job tasks, equipment, location, or condition, the subgroup coordinator needs to brief the RWIC on all changes.
- Lone Worker The Lone Worker must participate in a job safety briefing with his supervisor or other designated employee at the beginning of each shift. This job safety briefing will include; planned itinerary and the procedures to establish On-Track Safety. If communications cannot be established with the Supervisor or designated employee, the Lone Worker must communicate with the train dispatcher to verify On-Track Safety.

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If all communication channels are disabled, the job safety briefing must be conducted as soon as communications are restored or, in some cases, write down the items for his personal briefing.

 Subgroup Coordinator – The Subgroup Coordinator must have a job safety briefing with the RWIC before any member of the subgroup fouls the track and each time conditions change. The Subgroup Coordinator must use the information received during the job safety briefing with the RWIC to job brief each member of the subgroup at their work location. The Subgroup Coordinator must job brief each member of the subgroup before fouling the track and each time conditions change.

B. Information included in a Job Safety Briefing

All information related to On-Track Safety must be given in the job safety briefing to any employee who will foul the track. In addition to other safety issues, the minimum On-Track Safety information must include:

- Designation of the Roadway Worker in Charge (RWIC);
- Work Group designation
- Watchman/Lookout or Subgroup Coordinator designation
- Type of track protection
- Track limits of the protection
- Time limits of the protection
- Track(s) that may be fouled
- Adjacent track(s)
- How/where all Roadway Workers will clear for trains
- Method of notification (air horn, white disc, etc.) of approach of trains
- Identify area or areas for clearing track
- A designated assembly place in case of an emergency
- Designated work zones
- Procedure to arrange for On-Track Safety on other tracks, if necessary
- Specific job(s) to be done or equipment moves(s) to be made
- Responsibility of each employee

Additional instructions may include an unusual situation or a specific reminder due to a hazardous condition or unusual practice.

A follow-up job safety briefing must be conducted whenever:

- Working conditions or procedures change
- Other workers enter working limits
- Track protection is changed, extended or about to be released

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- Change of locations
- Change of limits, clearing limits, and/or Changing projects

C. Use of Job Safety Briefing Form

The Job Safety Briefing form is a two-sided form used for recording job safety briefings. The front of the form is used to record RWIC and the on-track protection to be used. The back of the form is used for recording the information of those individuals who attend a job safety briefing and to track individuals and subgroup coordinators working within the limits. The individual or Subgroup Coordinator who receives a job safety briefing from the RWIC will print and sign his or her name, training sticker number, company, and the time the job safety briefing took place in the spaces provided.

When an individual or subgroup will no longer be under the charge of the RWIC, the departing individual or Subgroup Coordinator must record leaving the work site by indicating the departure time and his or her initials in the row containing the name or subgroup. Individuals or subgroups that fail to report leaving a work site will be charged with all train delays.

Roadway Work in Charge (RWIC)

The RWIC is responsible for initiating, updating, and maintaining an accurate Job Safety Briefing form noting all individuals and subgroups working under his or her charge. All applicable information must be noted on the form including the on-track protection to be used. Approved abbreviations included on the Job Safety Briefing Form may be used for information added to the job safety briefing form.

An RWIC must have the Job Safety Briefing form available for inspection by federal and state agencies, officers of the SCRRA, and employing contractor managers. Job safety briefing forms must be retained for 72 hours following the date of the briefing.

Subgroup Coordinator

The Subgroup Coordinator is responsible for initiating, updating, and maintaining an accurate Job Safety Briefing form for his or her subgroup. The Subgroup Coordinator will copy all job safety briefing information provided by the RWIC on the job safety briefing form, including the on-track protection used. Approved abbreviations included on the Job Safety Briefing Form may be used for information added to the job safety briefing form. The RWIC must review the Subgroup Coordinators job safety briefing form for accuracy and sign the back of the job safety briefing form.

The Subgroup Coordinator must have the Job Safety Briefing form available for inspection by Federal and state agencies, officers of the SCRRA, and employing contractor managers. Job safety briefing forms must be retained for 72 hours following the date of the briefing.

Subgroup Coordinator and Subgroup Employees Entering the Work Limits

The Subgroup Coordinator must receive a job safety briefing from the RWIC and complete the Job Safety Briefing form before the Subgroup Coordinator or subgroup members foul the track. A Subgroup Coordinator that fails to report leaving a work site will be responsible for all train delays

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• Individuals Entering the Working Limits

An individual needing to enter the working limits must receive a job safety briefing from the RWIC or Subgroup Coordinator and complete the Job Safety Briefing form before fouling the track. The person performing the job safety briefing (RWIC or Subgroup Coordinator) will depend on where the individual desires to foul the track. An Individual that fails to report leaving a work site will be responsible for all train delays.

RWIC or Subgroup Coordinator Right of Refusal

An RWIC or Subgroup coordinator has the right to refuse additional subgroups or individuals to enter the limits or to become part of a subgroup.

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Figure 1 Job Safety Briefing Flow Chart, RWIC + Subgroup Coordinator(s)

Job Safety Briefing Flow Chart

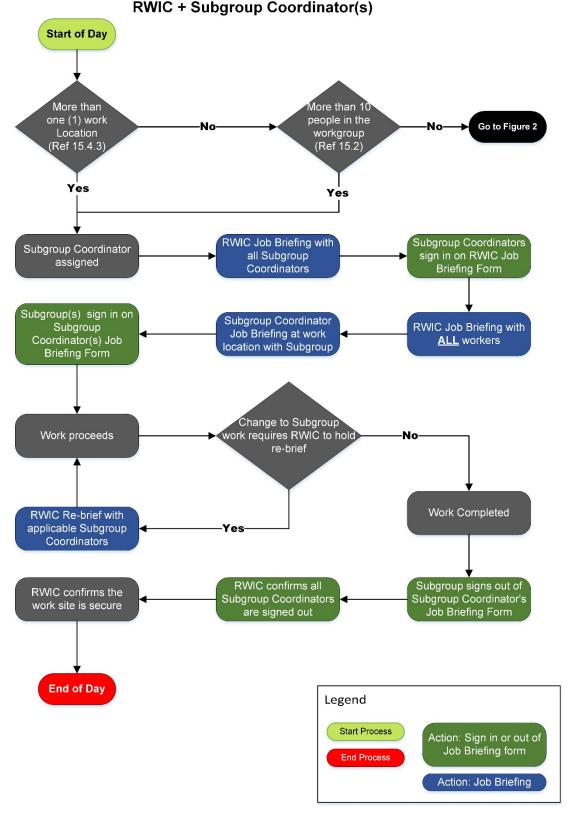
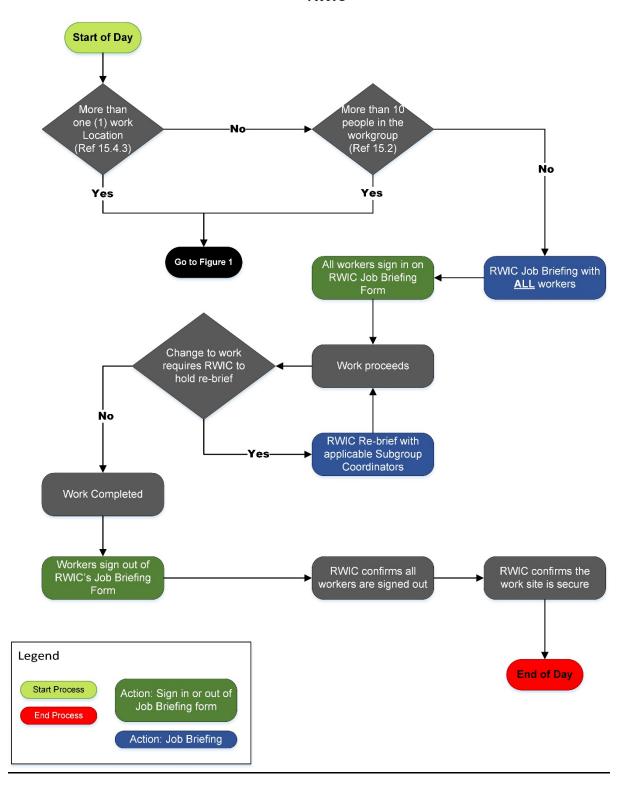


Figure 2 Job Safety Briefing Flow Chart, RWIC

Job Safety Briefing Flow Chart RWIC



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3.1 Risk Analysis Form – Responsibilities

Risk Analysis includes an assessment of the likelihood and severity of the consequences of the hazards, including existing mitigations, and prioritization of the hazards for tasks to be performed. Each employee/contractor will need to complete a Risk Analysis form prior to fouling the track. This form will be completed after the job briefing and will require everyone to complete their own form and discuss each section of the form with their working group. This procedure is a condition of employment and/or of the contract and will require individual accountability for compliance. Each Roadway Worker will be subject to corrective action if they fail to comply with this procedure which may include immediate removal from service until a Root Cause Review is complete. Each Roadway Worker shall:

- Personally complete as a Lone Worker, or participate in a job briefing, sign the
 Job Briefing form and then complete the job briefing section within the Personal
 Risk Analysis form to demonstrate a complete understanding of the on-track
 protection necessary/afforded in order complete the work task(s) identified in a
 safe manner.
- Immediately upon completion of the Job Briefing, complete a Personal Risk Analysis to address the hazards and risks associated with the task that you will be performing on or about the railroad. The Personal Risk Analysis must be completed by each person within a work group or as a Lone Worker, on their own form and then each section of the form must be discussed with each person in that working group or between the Lone Worker and his/her Supervisor, or Train Dispatcher.
- Each Roadway Worker must have in their possession, a Personal Risk
 Assessment booklet as provided by SCRRA, or a completed 8 1/2 X 11 form
 (format unmodified and as provided by SCRRA). Each Roadway Worker must
 retain the Personal Risk Analysis Booklet or the form on their person throughout
 their work shift, must be able to refer to the information in these documents as
 required and must present a completed Personal Risk Analysis to anyone who
 requests it, for inspection.
- Each Roadway Worker must undertake and complete a Job Briefing and Personal Risk Analysis each time work is performed along the railroad right-ofway and for each Job Briefing participated in. Depending on the task(s) or work performed, it may be necessary to complete multiple Risk Analysis throughout a single work shift. A separate Risk Analysis must be completed when:
 - The task changes
 - Work limits change
 - The type of on-track protection being used changes
 - On-track protection work limits change
 - The number of participants in the work group changes

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3.2 Risk Analysis Form – Procedure

All work related to on-track movement or right of way activity will begin with a complete job briefing. This will include all applicable portions of the job briefing form to be completed accurately, a complete understanding by all parties of the work to be performed, the protection provided, and details of roles and responsibilities. The Job Briefing form must be completed as outlined in the Code of Federal Regulations (CFR) and the Maintenance of Way Operating Rules (MOWOR).

The Risk Analysis form will be a secondary means of communication between all parties in the work group to ensure that all elements of the work to be performed are understood. All employees/contractors will be required to follow this procedure as outlined. If an individual is working independently, such as a Lone Worker, the individual must complete the form and review the information with their Manager/Supervisor or Dispatcher prior to starting their work.

Risk Analysis Form Information Page

Fill out all aspect of the first information page and confirm with another Roadway Worker or Supervisor. Every item should have sufficient detail to identify potential risks and demonstrate an understanding of on-track protection.

Risk Analysis Form Rating Page

As you evaluate the total Risk Rating you will need to have a complete and thorough understanding of the work to be performed and what your role in that work will be. If you do not have a complete understanding of the work, stop and have a discussion with your RWIC and/or supervisor while occupying a place of safety, not in foul of any track.

Use the tables to evaluate and assign a Risk Rating to the task(s) you are going to perform. If the ratings differ among the various members of the work group, the group will discuss the risk associated with the task to be performed until all members of the work group can agree upon a Risk Rating within one point of each other. It is critical all Risk Ratings are within the one-point tolerance to ensure for a thorough understanding of the work and a safe working environment.

- Review the Risk Table and note the Severity Rating on the form.
- Review the Probability Table and note the probability of the risk happening if all proper procedures are not followed and the proper on-track protection is not used.
- Multiply the Severity Rating times (X) the Probability Rating and note this value on the Total Risk Rating line.
- Provide a brief description of how the Lone Worker or Work Group will mitigate the risk(s) in the risk mitigation box.
- Provide a brief description of the work or task to be performed.
- Indicate who you discussed the Risk Analysis with.
- Print and sign your name.
- Keep the 8 ½ X 11 risk form or Personal Risk Analysis Booklet in you Safety Vest pocket for quick access and presentation upon request.

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3.3 Risk Analysis Form – Record Keeping

Each person who is responsible to complete the Personal Risk Analysis must use the Personal Risk Analysis form in an 8 ½ X 11 format or in the Personal Risk Analysis Booklet approved and provided by SCRRA. Each 8 ½ X 11 form used must be turned into their supervisor at the end of the work shift and retained for 72-hours. Each Personal Risk Analysis Booklet must be maintained intact until all the pages have been used. The Personal Risk Analysis Booklet may be discarded at the end of the work shift only after the entire book has been used up creating Risk Analyses.

Depending on which format is being used, both the 8 ½ X 11 and Booklet should be kept on your person while occupying a space on the railroad right-of-way and while performing work during any work shift. Keeping the Risk Analysis form on your person allows for quick access for review or completion of additional Risk Analyses and can easily be made available if Supervision requests to view it.

All completed Personal Risk Analysis forms must be made available for review to any SCRRA Manager, compliance officer, or any other person as directed by the Agency.

3.4 Risk Analysis Form – Exceptions

Delivery drivers who stay inside of the delivery vehicle and whose movement on railroad property is closely monitored and controlled by the RWIC are exempted from the Section 3.0 Job Safety Briefings and Section 3.1 Risk Analysis Form – Responsibilities processes.

FRA and CPUC Inspectors who perform routine joint inspections are exempted from this process.

Passenger and Freight train operating crews are exempt from this process.

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4.0 Fouling the Track

Employees or equipment must not foul the track (within 8 feet of the nearest field side of the running rail) except when necessary in the performance of duty.

Before fouling a track, employees are responsible for:

- Knowing that On-Track Safety is being provided;
- Following the On-Track Safety rules of the railroad on which they are located;
- Refusing to violate an On-Track Safety rule, if the employee makes a good faith determination that On-Track Safety provisions to be applied at the job location do not comply with the rules of the operating railroad.

4.1 Working Limits – Exclusive Track Occupancy

When working limits on a controlled track are established through the use of exclusive track occupancy, follow these procedures:

- Place control of the working limits under one designated employee
- After receiving authority and before occupying or fouling or using the authority as a method of protection, if available on site, an additional employee will verify the authority before shunting.
- Obtain written authority before occupying or fouling track and maintain possession of this written authority while it is in effect
- Designate the extent of the working limits by one of the following physical features clearly identifiable to a train or on-track equipment:
 - A flagman with instructions to hold all trains and equipment
 - A fixed signal-displaying STOP
 - A station shown in the Timetable and identified by a sign
 - A clearly identifiable milepost
 - A physical location identified by track bulletin, track warrant or by special instructions. (See APPENDIX E: SCRRA Track Warrant)
- Make movements of all trains and equipment under the direction of the Roadway Worker In Charge of the working limits. Do not exceed restricted speed unless the Roadway Worker In Charge of the working limits authorizes a different speed.
- Notify all employees before working limits are released. Do not release working limits until all employees have left the track or have been provided On-Track Safety through Train Approach Warning (Rule 6.3.4 B).

4.2 Working Limits - Inaccessible Track

Working limits on a track (where Restricted Speed or Rule 6.28 is in effect) must be established by making the track physically inaccessible to trains, **by the RWIC**, by one of the following methods:

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- A flagman with instructions and capability to hold all trains and equipment clear of the working limits
- A switch lined and secured to restrict access to the track being protected/fouled.
- A derail capable of restricting access to the portion of track where working limits are established must be placed at least 150 feet from nearest location where track may be fouled. The derail must be locked in derailing position with an effective locking device. A red flag must be displayed at each derail. Derails must not be placed on main tracks or controlled sidings.
- Where remote control switches provide direct access, the RWIC of On-Track Safety must tell the switch operator what work will be done. The switch operator must then:
 - 1. Inform RWIC that the switches have been lined against movement onto track and devices controlling the switches have been secured.
 - 2. Not remove the locking devices unless it is safe to do so.
- A discontinuity in the rail capable of restricting access to the portion of track
 where working limits are established must be placed at least 50 feet from nearest
 location where track may be fouled. A red flag must be displayed at each derail.

4.3 Working Limits – Train Coordination

Employees may use a train's authority to establish working limits for track maintenance. To establish the working limits, the train must be in view and stopped. The Roadway Worker In Charge of working limits will communicate with a member of the train crew and determine:

- That employee will make movements only as permitted by the Roadway Worker In Charge until the working limits have been released to the train crew.
- The train will not release its authority within the limits until the Roadway Worker In Charge has released those working limits.

Working limits may be established within a train's authority limits as follows:

CTC Territory:

1. With a train having track and time authority that is not joint.

OR

- 2. With a train having authority to move in one direction only, working limits must not be established:
 - Behind the train:
 - More than one block in advance of the train beyond any location that a train or engine could enter the track between the Roadway Worker In Charge of the working limits and the train.

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4.4 Outside of Working Limits

On-Track Safety for employees engaged in work that does not disturb the track structure or the proper operation of the signal system or protective devices may be provided by Individual Train Detection or Train Approach Warning by Watchmen/Lookouts.

A. Train Approach Warning Provided by Watchmen/Lookouts

Employees in a work group using Train Approach Warning provided by watchmen/lookouts must be provided warning in sufficient time to enable each employee to move to a previously determined place of safety, not less than 20 seconds before a train moving at the maximum speed authorized on that track would arrive at the employee's location.

Train Approach Warning provided by watchmen/lookouts may only be used under the following conditions:

- Watchmen/lookouts assigned to provide Train Approach Warning must devote full attention to detecting the approach of trains and providing warning and are not to be assigned or must not perform any other duties.
- The warning method used must be distinctive and clearly signify to all affected employees that a train or other on-track equipment is approaching, such as with an air horn or whistle.
- The warning method must not require that an employee be looking in any particular direction at the time of the warning and it must be detected regardless of noise or distraction of work.
- Each affected employee must maintain a position to receive the warning provided by the watchmen/lookouts.
- Watchman/Lookout protection must not be used when working with heavy equipment.
- Watchman/Lookout protection must not be used when working within a tunnel.

B. Individual Train Detection

A lone worker using Individual Train Detection (ITD) must be able to visually detect the approach of a train moving at the maximum speed authorized on that track and move to and occupy a previously determined place of safety, not less than 20 seconds before the train would arrive at the employee's location.

Lone workers have the right to use other On-Track Safety procedures other than Individual Train Detection if they deem it necessary.

Individual Train Detection may only be used under the following conditions:

- By a lone worker performing routine inspection outside of the limits of a control point or a manual interlocking.
- Where no power operated tools or roadway maintenance machines are in use within hearing of the employee.

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- Where the ability of the employee to hear and see approaching trains and other on-track
 equipment is not impaired by background noise, lights, precipitation, fog, passing trains
 or any other physical conditions.
- When the employee does not occupy a position or engage in any activity that would interfere with maintaining a vigilant lookout and detecting the approach of a train moving in either direction.
- Where the place of safety to be occupied upon the approach of a train is not on a track, unless working limits are established on that track.

Statement of On - Track Safety

Before using individual train detection, complete a written Statement of On-Track Safety. This statement must include the limits of the track for which it is prepared and the date and time for which it is valid. It must also show the maximum authorized speed of trains within the limits and the sight distance that provides the required warning of approaching trains. This statement must be provided to a representative of the Federal Railroad Administration upon request. (See **APPENDIX D: JOB SAFETY BRIEFING FORM**)

4.5 Protection of Work on or Near Main Tracks or Controlled Sidings

The following paragraphs outline methods for providing protection of work on or near main tracks and controlled sidings, outside of yard limits (for protection of work on a main track within yard limits, see MOWOR Rule 6.13).

In determining adequate levels of protection, good judgment must always be used. Whether, sight distances and visibility must be considered, the safety of both employees and trains is the most important element.

In all cases, act immediately to provide a greater level of protection if the situation changes that requires it.

A. Work near tracks that may foul (with equipment)

If work is to be conducted near a main track or controlled siding where workers or equipment will foul or have the potential to foul the track, protection must be provided by one of the following:

Exclusive Track Occupancy:

- MOWOR Rule 10.3 Track and Time (See APPENDIX G: TRACK AND TIME IN CTC TERRITORY)
- MOWOR Rule 15.2 Protection by Track Bulletin Form B (See APPENDIX F: Form B Request)

Inaccessible track:

• OTSM Rule 4.2 Working Limits – Inaccessible Track

B. Work near tracks that may foul (without Equipment)

If work is to be conducted on or near a main track or controlled siding where workers will foul or have the potential to foul the track, protection must be provided by:

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- Exclusive Track Occupancy
 - ♦ MOWOR Rule 10.3 Track and Time (See APPENDIX G: TRACK AND TIME IN CTC TERRITORY)
 - MOWOR Rule 15.2 Protection by Track Bulletin Form B (See APPENDIX F: Form B Request)
- Inaccessible track:
 - ♦ OTSM 4.2 Working Limits Inaccessible Track
- Train approach warning:
 - ♦ Rule 14.0 Watchmen/Lookout
- Individual Train Detection:
 - ♦ Rule 16.0 Lone Worker

In addition, employees in a work group engaged in large-scale maintenance or construction must be provided protection on adjacent tracks that are not included within working limits by Train Approach Warning Provided by Watchmen/Lookouts.

EXCEPTION: In an emergency, when unable to obtain authority and it is necessary to foul/occupy a main track, protection must be provided in both directions as outlined in MOWOR Rule 6.19 (Flag Protection).

4.6 Protection Where MOWOR Rule 6.28 is in Effect

The requirements of (On-Track Safety) and (Job Safety Briefings) also apply on tracks where MOWOR Rule 6.28 is in effect.

A. Work Near Tracks That May Foul

If work is to be conducted near a track (where Rule 6.28 is in effect) that will not disturb the track structure but where men or equipment may foul the track, provide protection by one of the following:

- Inaccessible Track
- Individual Train Detection
- Train Approach Warning by Watchmen/Lookouts

B. Work on Tracks

Work that will disturb the track structure must be protected by:

- Inaccessible Track
- C. Other Conditions Requiring Protection

Establish Working Limits by making the track inaccessible (OTSM 4.2 Working Limits – Inaccessible Track) to provide protection where MOWOR Rule 6.28 is in effect when track is:

- Found unsafe for train or engine movements due to track condition or other reasons;
- Removed from service; or

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• Obstructed or track made impassable by Maintenance-of-Way equipment.

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5.0 Right to Challenge On-Track Safety

SCRRA and each roadway worker (employee) shares joint responsibility for:

- Ensuring that On-Track Safety is provided.
- Not fouling a track(s) unless absolutely necessary in the performance of their duty

A. Employee Right to Challenge On-Track Safety procedures

The employee has the absolute right to challenge in good faith, whether the On-Track Safety procedures applied at the job location comply with SCRRA's Safety and Operating Rules for Maintenance of Way.

When an employee is making such a good faith challenge, all employees must remain clear of the track until the challenge is resolved, as provided herein and must refuse any directive to violate an On-Track Safety Rule.

Prior to initiating a challenge, the employee shall:

- Discuss the On-Track Safety procedures at the job location with the Roadway Worker In Charge;
- 2. Clarify any misunderstanding about those procedures; and
- 3. Attempt to resolve any difference of opinion concerning those procedures.

An employee who has decided to challenge the On-Track Safety procedures to be applied at his location must:

- Do so in good faith, i.e., have an honest concern over whether the On-Track Safety
 procedures comply with SCRRA's rules, and their concern is of such a nature that a
 reasonable person under the same circumstances should also have such a concern;
- 2. Immediately notify the Roadway Worker In Charge who will promptly notify their supervisor;
- 3. Notify any fellow employee of potential danger and;
- 4. Be able to explain concerns regarding the On-Track Safety procedures being applied.

B. Procedures for Prompt and Equitable Resolution of Challenges

An employee making a good faith challenge that the On-Track Safety procedures being applied at the job location do not comply with SCRRA's Safety and Maintenance of Way Operating Rules (MOWOR), shall explain the basis for those concerns to their immediate supervisor. This explanation shall be written on an "On-Track Protection Good Faith Challenge Form" and shall include (See APPENDIX A: On-Track Protection Good Faith Challenge Form):

- 1. Name of challenging employee, the supervisor and work location:
- 2. A full description of the On-Track Safety procedure and challenge;

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- 3. A citation of the applicable SCRRA's Safety and Maintenance of Way Operating Rules (MOWOR);
- 4. A full description of the employee's basis for challenging the On-Track Safety procedures applied at the job location; and
- 5. The names of other employees (including supervisors and the Roadway Worker In Charge), with knowledge of the facts applicable at that job location.

The employee's immediate supervisor shall review the employee's statement for facts and:

- 1. Determine if the employee's statement of the applicable On-Track Safety procedure at the job location is accurate; and
- 2. Determine if the procedures applicable at the job location comply with SCRRA's Safety and Maintenance of Way Operating Rules (MOWOR).

The involved employee and supervisor shall attempt to resolve the challenge. When the challenge is not resolved, and the supervisor determines that the On-Track Safety procedures being applied at the job location comply with SCRRA's Safety and Maintenance of Way Operating Rules (MOWOR) he/she shall so notify the employee and document the determination on the Challenge Form. If resolved, the supervisor shall forward the Challenge Form to the General Managers office.

When employee's challenge has not been resolved he/she shall process it via the supervisor to the Manager of Maintenance-of-Way for review. The Manager of Maintenance-of-Way shall be provided information previously provided to the supervisor and an explanation of why the supervisor's determination was rejected.

The Manager of Maintenance-of-Way will review the challenge to determine if the On-Track Safety procedure being applied at the job location is in compliance with SCRRA's Safety and Maintenance of Way Operating Rules (MOWOR). He shall be responsible to contact those parties, as necessary, in order to make a determination. If he/she determines that the On-Track Safety procedures at the job location are inadequate, he/she shall arrange for rule compliance before allowing the employee to foul the track. If he determines that the On-Track Safety procedures comply with SCRRA's Safety and Maintenance of Way Operating Rules (MOWOR), he/she shall explain to the employee that the challenge is not valid and the reasons therefore. For purposes of this program, the challenge shall be deemed resolved. The employee shall then be instructed to resume his/her assigned duties.

6.0 On-Track Machines & Equipment

6.1 Movement on Other Than Main Track

Except when moving on a main track or on a track where a block system is in effect, trains, engines, or on track equipment must move at a speed that allows them to stop within half the range of vision short of:

- Train
- Engine
- Railroad car
- Men or equipment fouling the track
- · Stop signal or
- Derail or switch lined improperly

6.2 Authority for Movement of On-Track Equipment

A. Outside of Yard Limits (MOWOR Rule 6.13)

On-track equipment must not foul or occupy main tracks for movement unless authorized or protected by one of the following:

Exclusive Track Occupancy:

- MOWOR Rule 10.3 Track and Time (See APPENDIX E: TRACK AND TIME IN CTC TERRITORY)
- MOWOR Rule 14.5 Protecting Men and Equipment
- MOWOR Rule 15.2 Protection by Track Bulletin Form B
- MOWOR Rule 15.2.1 Protection for On-Track Equipment
- OTSM Rule 4.2 Working Limits Inaccessible Track

EXCEPTION: In an emergency, when unable to obtain authority and it is necessary to foul or occupy a main track, protection must be provided in both directions as outlined under MOWOR Rule 6.19 (Flag Protection).

B. On-Track Safety for employees who operate or work near roadway machines shall comply with the following instructional material:

- On-Track Safety procedures outline in this manual and,
- Rules governing the on-track machines & equipment, found in SCRRA's Maintenance of Way Safety Rules (MOWSR) and Maintenance of Way Operating Rules (MOWOR).

Included in these rules are:

- Speed requirements;
- Movement over grade crossings;

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- Following cars or trains;
- Signal stop;
- Passing trains;
- Operating over switches, frogs and derails;
- Rules governing working with crew.

C. Instructions for Safe Operations

Any employee who operates on-track machines must be assured that On-Track Safety has been provided. The type of On-Track Safety to be used will be determined by RWIC of the work group, as discussed in job safety briefing(s).

- Operators must know that their equipment is in working condition and have made proper safety checks before starting or moving equipment.
- A leakage air brake test must be made when coupled to railroad equipment or on equipment with an air-brake system.
- A running test of brakes must be made immediately upon movement of work equipment.

6.3 Training and Qualification for Operators of On-Track Machines and Equipment

The training and qualifications as a roadway worker for operating on-track equipment shall include, as a minimum:

- Procedures to prevent a person from being struck by the machine when working around equipment.
- Procedures to prevent any part of the machine from being struck by a train or other equipment on another track.
- Procedures to provide for stopping the machine short of other machines and/or
- Methods to determine safe operating procedures for each machine which the operator is expected to operate.

One initial, and periodic performance evaluation by a Competent Person will be made for qualifying an Operator of roadway maintenance machines and must be tested by demonstrating the above specified proficiencies.

6.4 Procedures to Prevent Being Struck by Maintenance-of-Way Machine or Roadway Equipment

A. Job Safety Briefing/Communication

Machine operator will attend job safety briefing conducted by the RWIC, which will include, but is not inclusive:

- 1. Responsibilities of Operators;
- 2. Responsibilities of Ground Employees;

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- 3. Passing of Trains,
- 4. Unattended or Tying up of Equipment;
- 5. Know and understand signaling devices;
- 6. Communication of hand signals to be used.

B. Responsibilities of Ground Employees

- 1. Understand the work and safety zones around equipment:
 - Work Zone extends from a point at least 25 feet in front of the machine to a point at least 25 feet behind the machine
 - Safety Zone All employees on the track, as well as self-propelled machines and equipment have a 25-foot safety zone. This zone will not be entered without being discussed in the job safety briefing and all operators are notified and understand employees are near the machine.
- 2. Ground employees must know and understand the signaling devices that may be used:
 - Pea, Fox 40 or police whistle;
 - Air Horn;
 - White disk;
 - Locomotive whistle/horn;
 - On-track equipment whistle/horn.

C. Responsibilities of Operators

Operators of track machines, roadway machines or equipment are charged with the responsibility of knowing that their machine or equipment is in safe operative condition before starting the day's work.

Operators must assure themselves that proper protection is being afforded their operation:

- The operator's manual must be kept with each machine. This manual must include instructions for the safe operation of the machine.
- Must not approach within at least 25 feet of employees fouling the tracks without first communicating with them.
- Machines such as cranes and ballast regulators require lateral and side clearance to ensure the safety of the employee. Operator must notify employees working in the vicinity of these machines before they are operated.
- Pre-arranged signals to move. Suggested signals are:
 - 1. Train approaching Sound Whistle, Horn or Siren with several long blasts until everyone sees the train
 - 2. Forward movement 2 short blasts, at least 1 second apart
 - 3. Reverse movement 3- short blasts, at least 1 second apart.

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- Always Maintain proper clearance between power lines and booms.
- When in doubt of safe clearances between power poles and machines, the operator will notify the RWIC before beginning work.
- Locomotive cranes, hy-rails with booms or other on-track equipment, will not be turned or swung while moving, unless it is determined the boom angle and load weight will permit safe operation.
- Special care must be taken when operating on curves or other locations where the track is super elevated:
- While working a minimum distance of at least 50 feet between machines, unless specified in a job safety briefing
- Machines shall keep at least 300 feet apart while traveling.

EXCEPTION: When necessary to "bunch" up to move over road crossings at grade, a distance of at least 50 feet between machines will be maintained.

• When two or more machines are moving together, the operators will hold a job safety briefing and agree on the signal that will be used when stopping.

D. Passing of Trains

Pile drivers, wrecking cranes, wrecking derricks, on-track machines or any equipment with potential to foul must not be operated when trains or other movement are passing on an adjacent controlled track unless otherwise instructed by the RWIC and all provisions of OTSM Section 7.1 – Adjacent Controlled Track Protection are met.

When unloading ballast or other material from a train, work must be stopped when trains or engines are passing on an adjacent track.

E. Unattended or Tying-Up of Equipment

When leaving or tying-up equipment, observe all of the following requirements:

- 1. Set brake and secure booms or other extensions to prevent fouling adjacent tracks.
- 2. Lower devices attached to booms, such as clamshells, so they rest on the ground idler car or work bed as applicable.
- 3. Stop motor.
- 4. Ignition must be locked.
- 5. Equipment must be secured by lock and chain.
- 6. Machine operators will dismount machine on the field side of the track, away from traffic.
 - Operators and employees will remain next to their equipment and not go between machines until all machines have come to a stop and brakes are set.
 - When the RWIC gives the all clear sign, the operator may continue their on-ground securement.
- 7. All vandalism protective covers and devices must be locked (if equipped).

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- 8. On grades, wheels must be securely blocked and chained to the rail.
- 9. Keys must be in possession of operator or another authorized employee.
- 10. When leaving equipment on the track, properly line, lock and tag switches to prevent movement onto the occupied track.

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7.0 Adjacent Track Operations

When a train is passing on a main track, controlled siding or any track where CTC is in effect with track centers of 19 feet or less from another track, roadway workers on the ground must not occupy the space between those tracks.

7.1 Adjacent Controlled Track Protection

One or more roadway workers of a work group on the ground engaged in a common task with on-track self-propelled equipment (excluding Hy-rails or other self-propelled on-track equipment, not coupled to cars, used for inspection or correctional repair purposes) or coupled equipment must be protected from adjacent controlled track movements by working limits established on the adjacent controlled track.

- A. Work on a track must cease and roadway workers on the ground must move to a designated place of safety while a train or on-track equipment is passing on an adjacent controlled track, unless the RWIC of the working limits instructs:
 - Trains passing on the adjacent controlled track consisting entirely of passenger equipment not to exceed **40 MPH** while passing the work location, or;
 - All other trains or on-track equipment moving on the adjacent controlled track not to exceed 25 MPH while passing the work.
 - No part of a roadway worker's body may extend beyond the rail of the occupied track nearest the movement on the adjacent controlled track when roadway workers are on the ground.
 - Do not occupy the space between a track and an adjacent controlled track when a train is passing on the adjacent controlled track.
- B. When roadway workers on the ground are required to cease work, the designated place of safety may be:
 - Between the rails on a track within established working limits and during which time no movements are permitted by the RWIC.
 - The field side of the track within established working limits

7.2 Occupying Adjacent Tracks

Before fouling a track adjacent to a track subject to train or on-track equipment movement, review this rule as part of the job safety briefing.

When working on a track, establish on-track safety as necessary to protect against trains and on-track equipment passing on an adjacent track(s).

To determine if authority or protection is required on adjacent tracks, the Roadway Worker In Charge (RWIC) must consider factors such as:

- Adjacent controlled tracks
- Roadway workers on the ground
- On-track equipment that will occupy the track

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- Right-of-way conditions involved in reaching the designated place of safety
- Curvature of the track
- Sight distance
- Speed of passing trains or on-track equipment
- Spacing of roadway workers and equipment in the work group
- Background noise
- Risk of distraction
- Designated place of safety, which may be between the rails on a track within established working limits and during which time no movements are permitted by the RWIC

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8.0 Safety Guidelines for the Right-of-Way

When working on or around tracks, the following precautions must be taken:

- Keep clear of all tracks unless you must do otherwise to perform your duties
- Keep a sufficient distance from passing trains and equipment. Face the direction from which the train or on-track equipment is approaching. Watch for projecting, dragging or falling objects
- Do not perform work while train or on-track equipment is passing unless otherwise instructed by the RWIC and all provisions of OTSM Section 7.1 – Adjacent Controlled Track Protection are met.
- Inspect all passing trains, if you detect a dangerous condition; use any available means to warn crewmembers on the passing train to stop. If the train does not stop at once, notify the train dispatcher
- Cross-tracks at least 25 feet from standing locomotives, railroad car and on-track equipment
- Do not pass between standing locomotives, railroad cars or on-track equipment when there is less than 50 feet between the equipment
- · Give hand signals for movement only if:
 - You are a member of the train crew

OR

- You have the approval of the person in charge and the engineer understands that you will be giving the signals.
- o EXCEPTION: Emergency stop signals may be given by anyone
- When you are crossing track, expect equipment to move on any track, in either direction, at any time.
- Look both ways, and then take the safest short route. If you must cross more than one track, look both ways before crossing each track.
- Avoid crossing in front of a moving train or equipment. If you must cross in front of a
 moving train or equipment, make sure that you can reach the opposite side at least 20
 seconds before the train or equipment arrives.

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9.0 Safety Precautions when Clearing Track

When you are notified or become aware of the approach of a train, stop all work and clear the tracks at least 20 seconds before the train reaches you.

- Clear track to the location designated by the RWIC in the Job Safety Briefing.
- You may not clear onto another track unless WORKING LIMITS have been established on that track.
- Do not leave tools, objects, material or equipment foul of track where they could be struck by a passing train.
- Stop all equipment and vehicles on the right-of-way while the train is passing.
- Stay clear until you are notified that it is safe to resume work.

10.0 Train Warning for Roadway Worker

Reference MOWOR Rule 5.8 Sounding Whistle

When approaching Roadway Worker that may be working near or on tracks, bridges and other points, trains and on track equipment, will warn employees by sounding their whistle or horn using sound 8 first, preceded by sound 4 (bell if so equipment rung) until movement has past the Roadway Worker(s).

The required whistle signals are illustrated by " o " for short sounds and — for longer sounds:

Figure 3 Whistle or Horn warnings approaching Roadway Worker(s)

Sound		Indication			
[1]	Succession of Short Sounds	Use when persons or livestock are on the track at other than road crossings at grade. In addition, use to warn railroad employees when an emergency exists, such as a derailment.			
		When crews on other trains hear this signal, they must stop until it is safe to proceed.			
[2]	_	When stopped: air brakes are applied, pressure equalized.			
[3]		Release brakes. Proceed.			
[4]	0 0	Acknowledgment of any signal not otherwise provided for.			
[5]	000	When stopped: back up. Acknowledgment of hand signal to back up.			
[6]	0000	Request for signal to be given or repeated if not understood.			
[7]		 When approaching public crossings at grade with the engine in front, sound signal as follows: A. At speeds in excess of 45 MPH, start signal at or about the crossing sign, but not more than one-fourth mile before the crossing. B. At speeds of 45 MPH or less, start signal at least 15 seconds, but not more than 20 seconds, before entering the crossing. C. If no crossings sign, start signal at least 15 seconds, but not more than 20 seconds before entering the crossing, but not more than one-fourth mile before the crossing. D. If movement starts less than one-fourth mile from a crossing, signal may be sounded less than 15 seconds before the crossing when it is clearly seen traffic is not approaching the crossing, traffic is not stopped at the crossing or when crossing gates are fully lowered. Prolong or repeat signal until the engine completely occupies the crossing. 			
[8]	— o	Approaching men or equipment on or near the track, regardless of any whistle prohibitions. After this initial warning, sound whistle signal (4) Intermittently until the head end of train has passed the men or equipment.			

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11.0 Personal Protective Equipment (PPE) and Highly Visible Garments

The following protective equipment is required to work on SCRRA's railroad property. All equipment should be in "good shape".

- a) Hardhats must meet ANSI, CAL/OSHA and/or Federal OSHA requirements. No metallic hardhats.
- b) Eye Protection must comply with ANSI Z87.1 standards
- c) ANSI Approved Reflective Safety Vest must be orange in color with retro-reflective striping, SCRRA approved and meet ANSI Class II or III reflective standards.

Employees shall wear a high visibility orange safety vest, shirt, jacket or other approved garment at all times when:

- Working on or about tracks.
- Inspecting, working on or working at a highway grade crossing where you are near traffic.
- In dark or low light conditions, an ANSI approved Class 2 safety vest is required.
- d) Safety Boots must comply with the following
 - Leather or leather-like upper
 - Sturdy non-leather sole that will resist puncture
 - Defined heel
 - Above the ankle (minimum 6-inch height as measured from the inside of the boot)
 - Minimum ASTM F2412, ASTM F2413-75 pound impact and compression class
 - Lace up

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12.0 General Responsibilities of All Roadway Workers

- Call attention to any rule violations;
- Must comply with the rules and instructions contained in the "On-Track Safety Manual and other instructions;
- Shall not foul track except when necessary in the performance of duty;
- Must verify that proper On-Track Safety is being provided prior to fouling any track;
- Must acknowledge understanding of the On-Track Safety procedures being used and know who is providing On-Track Safety. This information will be provided in your Job Safety Briefings;
- Have the absolute right to challenge, in good faith, any directive to violate an On-Track Safety Rule. They shall inform the Roadway Worker in Charge that, On-Track Safety provisions to be applied at a job location do not comply with the On-Track Safety Manual, the Maintenance of Way Operating Rules (MOWOR);
- Must remain clear of the track until the conflict is resolved. Conflict resolution procedures are contained in the On-Track Safety Manual;
- Must not perform any work that will interfere with the safe passage of trains;
- Employees on or about the tracks must wear a high visibility, orange in color, vest or other approved garment.

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13.0 Roadway Worker

The Code of Federal Regulations has defined a Roadway Worker as any employee of a railroad, or of a contractor to a railroad, whose duties include inspection, construction, maintenance or repair of railroad track, bridges, roadway, signal and communication systems, electric traction systems, roadway facilities or roadway machinery on or near track, or with the potential of fouling a track. SCRRA considers any employee/contractor on the SCRRA right of way, who performs the duties listed above to be a Roadway Worker.

Wearing high visibility orange work vests with light reflective material for night identifies the roadway worker.

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14.0 Watchman/Look out

14.1 Definition

A Watchman/lookout is an employee who has been annually trained and qualified to provide warning to roadway worker employees of approaching trains or on-track equipment.

14.2 Responsibilities of Watchmen

Watchmen/lookouts must be able to perform the proper actions in the timeliest manner without any chance of error in order to provide proper Safety for those who are placed in their care.

Watchmen are responsible for the lives of their fellow workers. It is their responsibility to watch for approaching trains and signal employees to clear the tracks.

WATCHMEN: YOU ARE THE PROTECTION!

The Watchman must be willing to:

- 1. Devote themselves exclusively to those duties, paying full attention to watching for trains or on-track equipment and warning employees.
- 2. If you cannot give your full attention to your duties as watchman do not leave your station until:
 - The RWIC determines that protection is no longer necessary, or
 - b. The RWIC has assigned another watchman who is in position and watching for approaching trains.

YOU **MUST NOT** PERFORM ANY OTHER DUTIES,

EVENT MOMENTARILY.

14.3 Assigning a Watchman

The RWIC is responsible for a safe operation and must exercise every reasonable precaution to protect employees in his charge. The RWIC will assign a watchman and an advance watchman when needed. The watchmen will be identified during the job safety briefing.

The following precautions must be taken:

- 1. Assign only trained and qualified individuals.
- 2. If employees have trouble hearing or are too scattered to hear the watchman's warning whistle or horn, assign additional watchmen as needed.
- 3. If the watchman changes, a new job safety briefing must be given.
- 4. Where the ability of the watchman to hear and see approaching trains and other ontrack equipment, is not impaired by lights, background noise, precipitation, fog, passing trains or any other physical conditions.

NOTE: Watchmen must have good visibility to perform Watchmen duties.

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NOTE: Watchman/lookout shall not be used at night, regardless of any artificial light (e.g., light plants, streetlights, flood lights, etc.).

14.4 Duties of Watchmen

Watchmen/Lookout must comply with the following procedures when performing their duties:

- 1. When a train, engine or on-track equipment approaches from either direction, warn employees in time for them to move to and occupy the designated place of safety defined in the job safety briefing at least 20 seconds before the train can pass the location of the roadway workers.
- 2. Signal the employees of an approaching train as follows:
 - a. Sound a warning whistle or horn.
 - b. Hold the white disc at arm's length above your head
 - c. Then, hold the white disc horizontally at arm's length, toward the place designated in the job safety briefing where the employees are going to clear the tracks.
- 3. Signal the employees that it is safe to resume work by holding the white disc horizontally at arm's length toward the point of work.

NOTE: Work groups of 2 or less are not required to display the Watchman's disk.

14.5 Duties of Advance Watchmen

Advance watchmen are responsible for watching for approaching trains and signaling the watchman when a train is approaching. The watchman then confirms the signal by repeating it back to the advance watchman.

When advance watchman signals the approach of a train, or signals that a train is clear, the watchman will repeat the signal to the advance watchman, then signal the gang.

- 1. The advanced watchman must signal the watchman of an approaching train by:
 - Sound a warning whistle or horn
 - b. Hold the white disc at arm's length above your head
 - Signal the approaching train to stop if the watchman does not acknowledge your signal.

NOTE: You may need to give additional warning around noisy operations.

NOTE: If bad weather limits visibility, use additional protective measures as needed.

A WATCHMAN MUST NOT BE USED FOR PROTECTION WHEN FOULING OR CROSSING THE TRACKS WITH MACHINES AND EQUIPMENT.

14.6 Watchmen Attire and Equipment

Watchmen, advance watchmen and RWIC must have the appropriate equipment to perform their duties. If you are a watchman, advance watchman or RWIC, follow these procedures when you are protecting or supervising employees.

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- 1. Keep your equipment in good condition and ready to use;
- Watchmen and advance watchmen must be issued a standard watchman's kit, the contents of which must be checked prior to assuming the duties of a watchman or advance watchman, to assure all the required equipment is in the bag and in good condition;
- 3. A watchman/lookout must always have a warning whistle and it must always be worn on the outside of your clothing. Additionally, if using an air horn, it must be worn on the outside of your clothing.

Required Watchmen/Lookout equipment are indicated in the following table:

Figure 4 Required Equipment for Watchman and RWIC

Required Equipment for Watchman and RWIC				
Watchman/Advance	a. Warning whistle and horn			
Watchman	b. Railroad Radio in functioning condition			
	c. High visibility orange work wear with light reflective materia			
	d. Standard white disk			
	e. 2 Red flags			
	f. 12 Red fusees			
	g. 2 White Lights			
Roadway Worker In	a. Warning whistle and horn			
Charge (RWIC)	b. Railroad Radio in functioning condition			
	c. Standard white disk			
	d. High visibility orange work wear with light reflective material			
	e. 2 Red flags			
	f. 12 Red fusees			
	g. 2 White Lights			

NOTE: If you arrive at work without proper equipment, you will not work as a Watchman.

14.7 Stationing Watchmen/Advanced Watchman

The RWIC must station watchmen, clear of all tracks, in a location where they are able to see approaching trains in both directions, close enough to allow employees to hear the warning whistle or horn clearly and to see the white disk clearly; and far enough from the work group to prevent being distracted by the work.

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When employees are working near noisy equipment, station an employee at the equipment's shut off valve. This employee watches the watchman, and upon receiving the watchman's signal, shuts off the equipment so the other employees can hear the watchman's signals.

Advanced Watchmen are stationed far enough in advance from the work group/employees to afford sufficient train approach warning time for the Watchman to enable the work group to move to and occupy the previously determine place of safety discussed in the job safety briefing not less than 20 seconds before the train can pass the work group/employees location.

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15.0 Roadway Worker in Charge (RWIC)

15.1 Definition

The RWIC is a roadway worker designated to provide On-Track Safety for one or more roadway work groups.

A Watchman/lookout is an employee who has been annually trained and qualified per 214.349 requirements effective April 1, 2017 to provide warning to roadway worker employees of approaching trains or on-track equipment.

The Lone Worker is an individual roadway worker who is not being afforded On-Track Safety by another roadway worker, who is not a member of a work group, and who is not engaged in a common task with another employee.

15.2 Designating the Roadway Worker In Charge (RWIC)

Roadway Worker in Charge means a roadway worker who is qualified under §214.353 to establish on-track safety for roadway work groups, and lone workers qualified under §214.347 to establish on-track safety for themselves. Employees must know who their RWIC is for each workday.

An RWIC must not provide individual protection for more than one work location or for any group larger than 10 individuals. If a project has more than one work location, or exceeds 10 individuals, the RWIC must assign a Subgroup Coordinator to each work group and any location requiring protection. The RWIC shall no longer perform any duties associated with individual protection of a group or location.

An RWIC will have the following minimum responsibilities:

- Communicating with each Subgroup Coordinator
- 2. Communicating with each train crew approaching the working limits
- 3. Assigning any speed restrictions
- 4. Conducting a job safety briefing
- 5. Administrative duties relating to the project
- 6. Requesting track authority
- 7. Establishing working limits
- 8. Absolute authority of the work zone as it relates to the safety of the workers,
- 9. passengers, and train crews
- 10. Personally, and continuously supervising any work involving unusual hazards and discussing specific procedures to protect against such hazards.
- 11. Informing employees of the general plan and procedures of the work that will follow
- 12. The On-Track Safety procedures to be used.
- 13. The RWIC will ensure that employees comply with all applicable rules.

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14. The RWIC will promptly advise their supervisor if any employee does not comply with a foreman's order or does not improve an unsafe work practice.

Who can be the RWIC?

- An individual that is MOWOR trained and Territory Qualified for the location that protection will be provided
- Lone Worker

Who cannot be an RWIC?

- An individual that is not MOWOR trained
- An individual that is not Territory Qualified for the location protection will be provided
- A watchman/advanced watchmen, lookout, flagger

•

15.3 Responsibilities of the Roadway Worker In Charge (RWIC)

The RWIC is responsible for the safety, instruction, performance and On-Track Safety of all employees under their jurisdiction. They are also responsible for taking charge of the work performed by assembled gangs or group of employees and arranging protection.

The RWIC will prepare employees for the day's work by giving all employees under his jurisdiction a job safety briefing.

Listed below are a few items that will be included:

- 1. Informing employees of the general plan and procedures of the work that will follow and the On-Track Safety procedures to be used.
- 2. Making definite work assignments.
- 3. Informing employees where they must go if it is necessary to clear for trains.
- 4. Supervising all work involving unusual hazards and discussing specific procedures to protect against such hazards.

THE JOB SAFETY BRIEFING WILL BE COMPLETE ONLY <u>AFTER</u> ALL EMPLOYEES, BY SIGNING THE JOB SAFETY BRIEFING FORM (<u>APPENDIX B</u>: <u>JOB SAFETY BRIEFING FORM</u>), HAVE ACKNOWLEDGED UNDERSTANDING OF THE ON-TRACK SAFETY CONDITIONS AND PROCEDURES BEING USED.

The RWIC will conduct additional job safety briefings with each employee when the On-Track Safety changes.

The RWIC will be sure that all employees clear the track(s) before the On-Track Safety changes or is no longer in effect.

The RWIC will ensure that employees comply with all applicable rules.

The RWIC will promptly advise their supervisor if any employee does not comply with a foreman's order.

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15.4 Subgroup Coordinator

1. Definition

Subgroup is a subordinate group working under the charge of a RWIC within established working limits.

Subgroup Coordinator is an employee responsible for a subgroup. A subgroup coordinator must be qualified as an RWIC on the territory according to SCRRA rules. A subgroup coordinator's sole duty is to watch for approaching trains/on-track equipment and provide advanced warning to employees before arrival of trains/on-track equipment. A subgroup coordinator shall not perform any other tasks.

2. Responsibilities

The subgroup Coordinator must:

- a. A subgroup coordinator's sole duty is to watch for approaching trains/on-track equipment and provide advanced warning to employees before arrival of trains/ontrack equipment.
- b. Ensure subgroup members know the place of safety to be used to clear trains.
- c. Warn subgroup employees of an approaching train as follows:
 - i Identify the warning method in the job safety briefing
 - ii Give a distinctive, clear, and unquestionable warning
 - iii Make sure that workers can detect the warning regardless of noise or work distractions
 - iv Do not require workers to look in a particular direction to receive warning
- d. Make certain all employees and equipment are clear of the track(s) before notifying the RWIC to allow a train to pass. RWIC must provide notification to the Subgroup Coordinator to return to work after a train or on-track equipment passes.
- e. Monitor the area for hazards or unusual conditions.
- f. Job Safety Briefings and re-briefings are part of the subgroup coordinator's tasks as the work environment changes.

3. Assigning Subgroup Coordinators

When gangs are working over an extended distance, the RWIC may divide the workers and equipment into subgroups, each with a designated person who acts as a Subgroup Coordinator for that subgroup.

The RWIC must review the work and size of each subgroup and must review the Subgroup Coordinators job safety briefing form for accuracy.

4. Procedure for Working with Subgroup Coordinators

When a train approaches the Form B limits, the RWIC notifies the Subgroup Coordinators. Each coordinator then warns subgroup employees of the approaching train and instructs them to clear the track and remain clear of the track until the

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Subgroup Coordinator signals that it is safe to resume work. When all subgroup members are clear, the Subgroup Coordinator then notifies the RWIC that the subgroup employees have been notified of the approaching train and are clear of the track.

If the RWIC cannot ensure that all personnel are clear of track, trains cannot be cleared to pass the subgroup location. Trains may be cleared into the limits of the Form B track bulletin but instructed to stop at a specific milepost location in advance of the subgroup until all men and equipment have reported clear of the track or may be advised to stop at the red flag and await instructions.

5. <u>Use of Subgroup Coordinator Tracking Form</u>

An RWIC will complete this form when clearing trains through the limits of a Form B. The RWIC will write the name and unique radio identification number (call sign) of each subgroup at the top of a subgroup column.

When a train or on-track equipment contacts the RWIC requesting instructions to pass through limits, the RWIC will write the engine number or on-track equipment I.D. number and the time the train contacted the RWIC in the appropriate columns. The RWIC will then contact the subgroup coordinator(s) and instruct the coordinator(s) to clear the track. When each subgroup coordinator reports clear of the track, the RWIC will check the box in the column below the appropriate subgroup. After all subgroups are clear the RWIC will clear the train/equipment through the limits. The RWIC will note the time the train/equipment is cleared to come through the limits.

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16.0 Lone Worker

16.1 Definition

The Lone Worker is an individual roadway worker who is not being afforded On-Track Safety by another roadway worker, who is not a member of a work group, and who is not engaged in a common task with another employee.

16.2 Responsibility of the Lone Worker

A Lone Worker must participate in a job safety briefing. This job safety briefing will be with their supervisor or other designated employee at the beginning of each shift.

The job safety briefing will include the Lone Worker's planned itinerary and the procedures that he intends to use to establish On-Track Safety.

If communications cannot be established with the supervisor or designated employee, the Lone Worker must communicate with the train dispatcher to verify On-Track Safety. If all communication channels are disabled, the job safety briefing must be conducted as soon as communication is restored.

When using Individual Train Detection (ITD), a statement of On-Track Safety Form must be filled out and completed once the Lone Worker is no longer foul of the track. (See **APPENDIX D: JOB SAFETY BRIEFING FORM**)

Maintain immediate access to a working railroad radio on their person, which can be a portable radio capable of monitoring transmissions from train movements in the vicinity.

16.3 Protection for the Lone Worker

A Lone Worker who fouls a track while performing routine inspection may use Individual Train Detection (ITD) to establish On-Track Safety only where permitted.

When using ITD, the lone worker is responsible for watching for trains. This form of protection may be used if the following conditions are met:

- 1. Qualified to use ITD per SCRRA's policies and procedures
- 2. Will not affect the movement of trains
- 3. Not within an interlocking or a control point
- 4. Able to visually detect the approach of a train moving the maximum authorized speed for that track, and move to and occupy a previously determined place of safety, not less than 20 seconds before the train reaches you
- 5. Where the ability of the lone worker to see and hear approaching trains and other ontrack equipment is not impaired by, background noise, lights, fog, precipitation, passing or standing trains or any other physical conditions
- 6. Where no power-operated tools or roadway maintenance machines are in use within your range of hearing.
- 7. May not occupy a position or engage in any activity that would interfere with your ability to maintain a vigilant lookout for, and detect the approach of a train moving in either direction

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- 8. Identify a place of safety prior to fouling a track
- 9. The place of safety may not be on another track unless working limits are established on that track
- 10. Understand, you have the absolute right to use On-Track Safety, other than Individual Train Detection if you deem it necessary, and to occupy a place of safety until a different form of On-Track Safety can be established

NOTE: Individual Train Detection (ITD) shall not be used at night, regardless of any artificial light (e.g.; light plants, street lights, flood lights, etc.).

16.4 Statement of On-Track Safety

As a lone worker, when you use ITD to establish On-Track Safety you must fill out portions of the Statement of On-Track Safety before fouling the track designating:

- 1. Name.
- 2. Current Date.
- 3. Subdivision and beginning limits (starting point of inspection).
- 4. Beginning time.
- 5. Number of Current Timetable and an X preceding the Max Authorized Speed.

The statement must be completed once the Lone Worker is no longer foul of the track.

The ITD Statement of On-Track Safety shall be produced when requested by a representative of the railroad and/or the FRA. (See **APPENDIX D: JOB SAFETY BRIEFING FORM**)

17.0 Positive Train Control

The PTC system is a locomotive-centric system overlaid on existing methods of control and operation, providing an enhanced level of safety through enforcement of train authority limits, permanent speed restrictions, temporary speed restrictions, equipment speed restrictions and mandatory directives. PTC is an advanced technology train collision/derailment avoidance system intended to warn/prompt the train crew and automatically engage the brakes and stop a train in advance of:

- Potential train to train collision,
- Train over-speed,
- Unauthorized entry into a track work zone, or
- Movement through a misaligned switch

The PTC system is governed by 49 CFR 236 Subpart I.

17.1 Critical Features

Any unplanned changes, including removal, relocation or damage, to a critical feature must be reported to Positive Train Control Support at (909) 596-3284.

Figure 5 PTC Track Database Critical Features

PTC Track Database Critical Feature	PTC	Track	Database	Critical	Feature
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- Track Centerline
- Derail
- Switch (direction, location, name, WIU address, monitored status, WIU status index from mapping file)
- Railroad interlocking
- Switch Clearance Point (location of normal and reverse points)
- Signal (type, direction, location, name, WIU address, WIU status index from mapping file, monitored status)
- Speed Sign (location)
- Permanent Speed Restrictions (start and end location for commuter, passenger, freight trains, unidirectional or bidirectional)

- Track interconnection location between Metrolink subdivisions and foreign railroad subdivisions
- At-grade crossings (panel edges, names, location, crossing type, DOT No., approach distance, warning time, pre-emption time, design speed)
- At-grade crossing Quiet Zone
- Milepost Marker Signs (location)
- Station (name, location of platform edges)
- Yard/Mechanical Limits
- Wayside Interface Unit (address, name, HMAC key, configuration CRC, beacon flag, address, name, ID, WSRS type)

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18.0 Definitions for On-Track Safety Manual (OTSM)

Adjacent Controlled Track: a track designated as a main track, controlled siding, or any track where CTC is in effect, for which the track center is spaced 19 feet or less from the center of the occupied track. Hy-rails or other self-propelled on-track equipment, not coupled to cars, used for inspection or minor correction purposes are excluded.

Adjacent Track: a controlled or non-controlled track whose track center is spaced less than 25 feet from the track center of the occupied track.

Bridge Worker: any employee of, or employee of a contractor of, SCRRA responsible for the construction, inspection, testing, or maintenance of a bridge whose assigned duties, if performed on the bridge, include inspection, testing, maintenance, repair, construction, or reconstruction of the track, bridge structural members, operating mechanisms and water traffic control systems, or signal, communication, or train control systems integral to that bridge.

Competent Person: a person who is capable of identifying existing and predictable hazards in the workplace and who is authorized to take prompt corrective measures to eliminate them.

Controlled Track: a track upon which the rule requires that any movement of trains must be authorized by a train dispatcher.

Critical Feature: A critical feature is an asset in the field of which the accuracy of its geographic location is important to the successful operation of the PTC system.

Derail: A device to prevent unintended train movement. If an engine, car or on-track vehicle passes a derail, it will come off the track and stop.

Employee: an individual who is engaged or compensated by SCRRA or by a contractor to SCRRA to perform any of the duties defined in part 214 of the CFR.

Equivalent: alternative designs, materials, or methods that the railroad or railroad contractor can demonstrate will provide equal or greater safety for employees than the means specified in this part.

Dispatch Operations Center (DOC): SCRRA train dispatching facility in Pomona, CA. Railroad traffic and maintenance activities on SCRRA's railroad are controlled and supervised by Train Dispatchers at this facility.

Exclusive Track Occupancy: a method of establishing working limits on controlled track in which movement authority of trains and other equipment is withheld by the train dispatcher or control operator, or restricted by flagmen, as prescribed in §214.321 of this part.

Flagman: an employee designated by the railroad to direct or restrict the movement of trains past a point on a track to provide on-track safety for roadway workers, while engaged solely in performing that function.

Flagging Protection: The protection, by an RWIC, of workers and/or work within or near the Foul Zone of the railroad right-of-way. See Roadway Worker-In-Charge and On-Track Safety.

Fouling a Track: the placement of an individual or an item of equipment in such proximity to a track that the individual or equipment could be struck by a moving train or on-track equipment, or in any case is within eight feet of the field side of the near running rail.

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Hardhat Decal: A decal indicating successful completion of the required SCRRA RWP Safety Training. The non-transferable decal is to be placed on the right-hand side of each individual's hardhat, so it is visible when working on SCRRA's railroad.

Inaccessible track: a method of establishing working limits on non-controlled track by physically preventing entry and movement of trains and equipment.

Individual Train Detection (ITD): a procedure by which a lone worker acquires on-track safety by seeing approaching trains and leaving the track before they arrive, and which may be used only under circumstances strictly defined in this part.

Inter-track Barrier: a continuous barrier of a permanent or semi-permanent nature that spans the entire work area, at least four feet in height and that is sufficient strength to prevent a roadway worker from fouling the adjacent track.

Jobsite: Also referred to as "worksite". Any location on SCRRA's railroad property where Contractor employees perform work; store or use materials and/or equipment; or make access to railroad property during a project.

Lone Worker: an individual roadway worker who is not being afforded on-track safety by another roadway worker, who is not a member of a roadway work group, and who is not engaged in a common task with another roadway worker.

Main Track (Mainline): A track extending through yards and between stations that must not be occupied without authority or protection.

Minor Correction: one or more repairs of a minor nature, including, but not limited to, welding, spiking, anchoring, hand tamping, and joint bolt replacement, that are accomplished with hand tools or handheld, hand-supported, or hand-guided power tools. The term does not include machine spiking, machine tamping, any similar repair, or when the boom or load handled by the boom of on-track equipment may foul an adjacent track.

Non-Controlled Track: track upon which trains are permitted by railroad rule or special instruction to move without receiving authorization from a train dispatcher or control operator.

Occupied Track: a track on which on-track, self-propelled equipment or coupled equipment is authorized or permitted to be located while engaged in a common task with a roadway work group with at least one of the roadway workers on the ground.

Off-Track Equipment: machines that may be operated on the right-of-way foul of track. Off-track equipment includes tractors, scrapers, graders, cranes, trucks, and similar equipment.

On-Track Equipment: Maintenance-of-way machines other than trains or engines, such as track cars, hi-rail vehicles, tampers, ballast regulators, etc. which are operated on the track.

On-Track Safety: a state of freedom from the danger of being struck by a moving railroad train or other railroad equipment, provided by operating and safety rules that govern track occupancy by personnel, trains and on-track equipment.

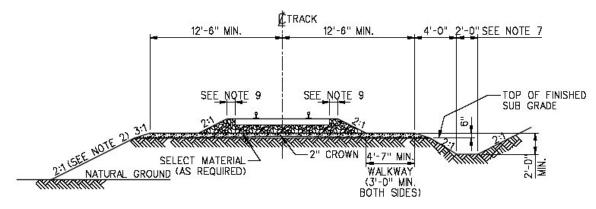
Positive Train Control (PTC): The PTC system is a locomotive-centric system overlaid on existing methods of control and operation, providing an enhanced level of safety through enforcement of train authority limits, permanent speed restrictions, temporary speed restrictions, equipment speed restrictions and mandatory directives. PTC is an advanced

technology train collision/derailment avoidance system intended to warn/prompt the train crew and automatically engage the brakes and stop a train in advance of:

- Potential train to train collision,
- Train over-speed,
- Unauthorized entry into a track work zone, or
- Movement through a misaligned switch

The PTC system is governed by 49 CFR 236 Subpart I.

Right-of-Way (ROW): The property upon which the railroad track sits, on which the railroad has federally-protected right-of-way over any other possible public or private use. SCRRA's railroad right-of-way in any particular area may be narrow, extending only 50-feet on either side of the track, or it may be over 200-feet wide. Consult your job's RWIC to determine the limits of SCRRA's railroad ROW.



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Risk Analysis: The process of identifying potential issues that could negatively impact the Roadway Worker or an entire Working Group and is a process that is completed upon entering the railroad right-of-way and prior to fouling any track to avoid or mitigate risks.

Roadway Work Group: two or more roadway workers organized to work together on a common task.

Roadway Worker: any employee of a railroad, or of a contractor to a railroad, whose duties include inspection, construction, maintenance or repair of railroad track, bridges, roadway, signal and communication systems, electric traction systems, roadway facilities or roadway maintenance machinery on or near track or with the potential of fouling a track, and flagmen and watchmen/lookouts as defined in this section.

Roadway Worker in Charge (RWIC): a roadway worker who is qualified under §214.353 to establish on-track safety for roadway work groups, and lone workers qualified under §214.347 to establish on-track safety for themselves.

Roadway Worker Protection: Rules for the protection of railroad employees working on or near railroad tracks. This regulation requires that each railroad devise and adopt a program of on-track safety to provide employees working along the railroad with protection from the hazards of being struck by a train or other on-track equipment. Elements of this on-track safety

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program include an on-track safety manual; a clear delineation of employers' responsibilities for providing on track safety, as well as employees' rights and responsibilities related thereto; well defined procedures for communication and protection; and annual on-track safety training. The program adopted by each railroad would be subject to review and approval by FRA.

RWP Safety Training: A safety training program for non-railroad employees and personnel covering On-Track Safety, safety rules, procedures and regulations. All Contractor employees must complete this program before entering SCRRA's railroad property.

Subgroup: a subordinate group working under the charge of a RWIC within a Form B.

Subgroup Coordinator: an employee responsible for a subgroup. A subgroup coordinator must be qualified as a RWIC on the territory according to SCRRA rules. A subgroup coordinator's sole duty is to watch for approaching trains/on-track equipment and provide advanced warning to employees before arrival of trains/on-track equipment. A subgroup coordinator shall not perform any other tasks. Refer to Section 15.

Train Approach Warning (provided by Watchmen): a method of establishing on-track safety by warning roadway workers of the approach of trains in ample time for them to move to or remain in a place of safety.

Train coordination: a method of establishing working limits on track upon which a train holds exclusive authority to move whereby the crew of that train yields that authority to a roadway worker.

Watchman/Lookout: an employee who has been trained and qualified to provide warning to roadway workers of approaching trains or on-track equipment. Watchmen/lookouts shall be properly equipped to provide visual and auditory warning such as whistle, air horn, white disk, red flag, lantern, fuse. A watchman/lookout's sole duty is to look out for approaching trains/on-track equipment and provide at least twenty seconds advanced warning to employees before arrival of trains/on-track equipment. Watchman/Lookouts on SCRRA property will be trained annually.

Work Zone: an area which extends from a point at least 25 feet in front of the machine to a point at least 25 feet behind the machine.

Working Limits: a segment of track with definite boundaries established in accordance with this part upon which trains and engines may move only as authorized by the roadway worker having control over that defined segment of track. Working limits may be established through "exclusive track occupancy," "inaccessible track," "foul time" or "train coordination" as defined herein.

Work location: a physical location where the work group will be conducting work including where the group will foul the track.

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19.0 Bridge Worker Safety Manual

<u>Subpart A – General</u>

19.1 Purpose and Scope

- A. The purpose of this part is to prevent accidents and casualties to employees involved in certain railroad inspection, maintenance and construction activities.
- B. This policy prescribes minimum Federal safety standards for the railroad workplace safety subjects addressed herein. This policy does not restrict a worker or railroad contractor from adopting and enforcing additional or more stringent requirements not inconsistent with this policy
- C. This policy is intended to conform with CFR 49 Part 214. Where discrepancies might exist CFR 49 Part 214 shall be the controlling factor except that the most restrictive rule shall apply in all cases.

19.2 Application

This policy applies to all employees and contractors and their employees who perform work that is within the scope of this policy

NOTE: Prior to use of any fall protection equipment, foreman must complete an information form using attached form "Fall Protection Use". (See APPENDIX J: Fall Protection Use Form)

19.3 Responsibility for Compliance

Any person (including any manager, supervisor, official, or other employee or agent of SCRRA or an SCRRA contractor) who violates any requirement of this policy or causes the violation of any such requirement is subject to all of SCRRA policies concerning rules violations and civil penalty of at least \$892 and not more than \$29,192 per violation, except that penalties may be assessed against individuals only for willful violations, and where a grossly negligent violation or a pattern of repeated violations has created an imminent hazard of death or injury, or has caused death or injury, a penalty not to exceed \$116,766 per violation may be assessed civil penalty policy.

19.4 Definitions

"Anchorage" means a secure point of attachment for lifelines, lanyards or deceleration devices that is independent of the means of supporting or suspending the employee.

"Body belt" means a strap that can be secured around the waist or body and attached to a lanyard, lifeline, or deceleration device.

"Body harness" means a device with straps that is secured about the person in a manner so as to distribute the fall arrest forces over (at least) the thighs, shoulders, pelvis, waist, and chest and that can be attached to a lanyard, lifeline, or deceleration device.

"Competent person" means one who is capable of identifying existing and predictable hazards in the workplace and who is authorized to take prompt corrective measures to eliminate them.

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"Deceleration device" means any mechanism, including, but not limited to, rope grabs, ripstitch lanyards, specially woven lanyards, tearing or deforming lanyards, and automatic self-retracting lifelines/lanyards that serve to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy on a person during fall arrest.

"Equivalent" means alternative designs, materials, or methods that the railroad or railroad contractor can demonstrate will provide equal or greater safety for employees than the means specified in this part.

"Freefall" means the act of falling before the personal fall arrest system begins to apply force to arrest the fall.

"Free fall distance" means the vertical displacement of the fall arrest attachment point on a person's body harness between onset of the fall and the point at which the system begins to apply force to arrest the fall. This distance excludes deceleration distance and lifeline and lanyard elongation, but includes any deceleration device slide distance or self-retracting lifeline/lanyard extension before they operate and fall arrest forces occur.

"Lanyard" means a flexible line of rope, wire rope, or strap that is used to secure a body harness to a deceleration device, lifeline, or anchorage.

"Lifeline" means a component of a fall arrest system consisting of a flexible line that connects to an anchorage at one end to hang vertically (vertical lifeline) or to an anchorage at both ends to stretch horizontally (horizontal lifeline), and that serves as a means for connecting other components of a personal fall arrest system to the anchorage.

"Personal fall arrest system" means a system used to arrest the fall of a person from a working level. It consists of an anchorage, connectors, body harness, lanyard, deceleration device, lifeline, or combination of these.

"Employee" or **"contractor employee"** as used in Subpart B means any employee of, or employee of a contractor of, SCRRA responsible for the construction, inspection, testing, or maintenance of a bridge whose assigned duties, if performed on the bridge, include inspection, testing, maintenance, repair, construction, or reconstruction of the track, bridge structural members, operating mechanisms and water traffic control systems, or signal, communication, or train control systems integral to that bridge.

"Railroad Bridge" means any structure with a deck, regardless of length, which supports one or more railroad tracks, or any other under-grade structure with an individual span length of 10 feet or more located at such a depth that it is affected by live loads.

"Self-retracting lifeline/lanyard" means a deceleration device that contains a drum-wound line that may be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

"Snap-hook" means a connector comprised of a hook-shaped member with a normally closed keeper, that may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object.

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<u>Subpart B – Bridge Worker Safety Standards</u>

19.5 Purpose and Scope

- A. The purpose of this subpart is to prevent accidents and casualties arising from the performance of work on railroad bridges.
- B. This subpart prescribes minimum railroad safety rules for railroad employees performing work on bridges. Managers and railroad contractors may prescribe additional or more stringent operating rules, safety rules, and other special instructions not inconsistent with this subpart
- C. These provisions apply to all SCRRA employees and SCRRA contractors performing work on railroad bridges.
- D. Any working conditions involving the protection of railroad employees working on railroad bridges not within the subject matter addressed by this Policy, including respiratory protection, hazard communication, hearing protection, welding and lead exposure standards, shall be governed other SCRRA policies, by the regulations of the U. S. Department of Labor, Occupational Safety and Health Administration and California Occupational Safety and Health Administration.

19.6 Fall Protection, Generally

- A. When employees work twelve feet or more above the ground or water surface, they shall be provided and shall use a personal fall arrest system or safety net system. All fall protection systems required by this section shall conform to the standards set forth in of this policy
- B. This section shall not apply if the installation of the fall arrest system poses a greater exposure to risk than the work to be performed. In any action brought by FRA to enforce the fall protection requirements, SCRRA or SCRRA contractor shall have the burden of proving that the installation of such device poses greater exposure to risk than performance of the work itself.
 - 1. This section shall not apply to employees engaged in inspection of railroad bridges conducted in full compliance with the following conditions:
 - a. The employee to whom this section applies has completed a minimum of one day formal training in the care and use of fall protection equipment and has approved climbing techniques training or have a minimum of five years' experience in climbing while inspecting railroad bridges.
 - b. The employee to whom this exception applies has been trained and qualified according to that program to perform bridge inspections, has been previously and voluntarily designated to perform inspections under the provisions of that program, and has accepted the designation;
 - The employee to whom this exception applies is familiar with the appropriate climbing techniques associated with all bridge structures the employee is responsible for inspecting;

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- d. The employee to whom this exception applies is engaged solely in moving on or about the bridge or observing, measuring, and recording the dimensions and condition of the bridge and its components; and
- e. The employee to whom this section applies is provided all equipment necessary to meet the needs of safety, including any specialized alternative systems required.
- C. This section shall not apply where employees are working on a railroad bridge equipped with walkways and railings of sufficient height, width, and strength to prevent a fall, so long as employees do not work beyond the railings, over the side of the bridge, on ladders or other elevation devices, or where gaps or holes exist through which a body could fall. Where used in place of fall protection as provided for in 214.105, this paragraph (c) is satisfied by:
 - 1. Walkways and railings meeting standards set forth in the American Railway Engineering Association's Manual For Railway Engineering; and
 - 2. Roadways attached to railroad bridges, provided that employees on the roadway deck work or move at a distance six feet or more from the edge of the roadway deck, or from an opening through which a person could fall
- D. This section shall not apply where employees are performing repairs or inspections of a minor nature that are completed by working exclusively between the outside rails, including, but not limited to, routine welding, spiking, anchoring, spot surfacing, and joint bolt replacement.

19.7 Fall Protection Systems Standards and Practices

A. General Requirements

All fall protection systems required by this Subpart shall conform to the following:

- 1. Fall protection systems shall be used only for employee fall protection.
- 2. Any fall protection system subjected to impact loading shall be immediately and permanently removed from service unless fully inspected and determined by a competent person to be undamaged and suitable for reuse.
- 3. All fall protection system components shall be protected from abrasions, corrosion, or any other form of deterioration
- 4. All fall protection system components shall be inspected prior to each use for wear, damage, corrosion, mildew, and other deterioration. Defective components shall be permanently removed from service.
- 5. Prior to use and after any component or system is changed, employees shall be trained in the application limits of the equipment, proper hook-up, anchoring and tie-off techniques, methods of use, and proper methods of equipment inspection and storage.
- 6. The SCRRA or SCRRA contractor shall provide for prompt rescue of employees in the event of a fall
- 7. Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.

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- 8. Connectors shall be drop forged, pressed or formed steel, or made of equivalent-strength materials.
- 9. Anchorages, including single- and double-head anchors, shall be capable of supporting at least 5,000 pounds per employee attached, or shall be designed, installed, and used under the supervision of a qualified person as part of a complete personal fall protection system that maintains a safety factor of at least two.

B. Personal fall arrest systems

All components of a personal fall arrest system shall conform to the following standards:

- 1. Lanyards and vertical lifelines that tie off one employee shall have a minimum breaking strength of 5,000 pounds.
- 2. Self-retracting lifelines and lanyards that automatically limit free fall distance to two feet or less shall have components capable of sustaining a minimum static tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.
- 3. Self-retracting lifelines and lanyards that do not limit free fall distance to two feet or less, rip stitch, and tearing and deformed lanyards shall be capable of withstanding 5,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.
- 4. Horizontal lifelines shall be designed, installed, and used under the supervision of a competent person, as part of a complete personal fall arrest system that maintains a safety factor of at least two.
- 5. Lifelines shall not be made of natural fiber rope.
- 6. The personal fall arrest system shall limit the maximum arresting force on an employee to 900 pounds when used with a body belt.
- 7. The personal fall arrest system shall limit the maximum arresting force on an employee to 1,800 pounds when used with a body harness.
- 8. The personal fall arrest system shall bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet.
- 9. The personal fall arrest system shall have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of six feet, or the free fall distance permitted by the system, whichever is less.
- 10. The personal fall arrest system shall be arranged so that an employee cannot free fall more than six feet and cannot contact the ground or any lower horizontal surface of the bridge.
- 11. Personal fall arrest systems shall be worn with the attachment point of the body belt located in the center of the wearer's back, and the attachment point of the body harness located in the center of the wearer's back near shoulder level, or above the wearer's head.
- 12. When vertical lifelines are used, each employee shall be provided with a separate lifeline.

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- 13. Devices used to connect to a horizontal lifeline that may become a vertical lifeline shall be capable of locking in either direction.
- 14. Dee-rings and snap-hooks shall be capable of sustaining a minimum tensile load of 3,600 pounds without cracking, breaking, or taking permanent deformation.
- 15. Dee-rings and snap-hooks shall be capable of sustaining a minimum tensile load of 5,000 pounds.
- 16. Snap-hooks shall not be connected to each other.
- 17. Snap-hooks shall be a locking snap-hook designed to prevent unintentional disengagement.

C. Safety Net Systems

SAFETY NETS SHALL BE INSTALLED ONLY BY **QUALIFIED INDIVIDUALS CONTRACTED BY SCRRA TO PERFORM A ONE TIME NET INSTALLATION**. NO
SAFETY NETS WILL BE PURCHASED OR MAINTAINED BY SCRRA FOR USE ON
ADDITIONAL PROJECTS. WHEN SAFETY NET INSTALLATION IS REQUIRED THE
FOLLOWING MINIMUM STANDARDS SHALL APPLY

Use of safety net systems shall conform to the following standards and practices:

- 1. Safety nets shall be installed as close as practicable under the walking/working surface on which employees are working but shall not be installed more than 30 feet below such surface.
- 2. If the distance from the working surface to the net exceeds 30 feet, employees shall be protected by personal fall arrest systems.
- 3. The safety net shall be installed such that any fall from the working surface to the net is unobstructed
- 4. Except as provided in this subsection, safety nets and net installations shall be droptested at the job site after initial installation and before being used as a fall protection system, whenever relocated, after major repair, and at six-month intervals if left in one place. The drop-test shall consist of a 400-pound bag of sand 30 inches, plus or minus two inches, in diameter dropped into the net from the highest (but not less than 3 h feet) working surface on which employees are to be protected.
 - a. When the SCRRA contractor demonstrates that a drop-test is not feasible and, as a result, the test is not performed, contractor, or the contractors designated competent person, shall certify that the net and its installation are in compliance with the provisions of this section by preparing a certification record prior to use of the net.
 - b. The certification shall include an identification of the net, the date it was determined that the net was in compliance with this section, and the signature of the person making this determination. Such person's signature shall certify that the net and its installation are in compliance with this section. The most recent certification for each net installation shall be available at the job site where the subject net is located.
 - c. Safety nets and their installations shall be capable of absorbing an impact force equal to that produced by the drop test specified in this section.

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- d. The safety net shall be installed such that there is no contact with surfaces or structures below the net when subjected to an impact force equal to the drop test specified in this section.
- e. Safety nets shall extend outward from the outermost projection of the work surface as follows:
 - i When the vertical distance from the working level to the horizontal plane of the net is 5 feet or less, the minimum required horizontal distance of the outer edge of the net beyond the edge of the working surface is 8 feet
 - ii When the vertical distance from the working level to the horizontal plane of the net is more than 5 feet, but less than 10 feet, the minimum required horizontal distance of the outer edge of the net beyond the edge of the working surface is 10 feet
 - iii When the vertical distance from the working level to the horizontal plane of the net is more than 10 feet, the minimum required horizontal distance of the outer edge of the net beyond the edge of the working surface is 13 feet
- 5. Defective nets shall not be used. Safety nets shall be inspected at least once a week for mildew, wear, damage, and other deterioration. Defective components shall be removed permanently from service.
- 6. Safety nets shall be inspected after any occurrence that could affect the integrity of the safety net system.
- 7. Tools, scraps, or other materials that have fallen into the safety net shall be removed as soon as possible, and at least before the next work shift
- 8. Each safety net shall have a border rope for webbing with a minimum breaking strength of 5,000 pounds.
- 9. The maximum size of each safety net mesh opening shall not exceed 36 square inches and shall not be longer than 6 inches on any side measured center-to-center of mesh ropes or webbing. All mesh crossing shall be secured to prevent enlargement of the mesh opening.
- 10. Connections between safety net panels shall be as strong as integral net components and shall be spaced not more than 6 inches apart.

19.8 Working Over or Adjacent to Water

- A. Employees working over or adjacent to water with a depth of four feet or more, or where the danger of drowning exists, shall be provided and shall use life vests or buoyant work vests in compliance with U.S. Coast Guard requirements in 46 CFR sections 160.047, 160.052, 160.053. Life preservers in compliance with U.S. Coast Guard requirements in 46 CFR y 60.055 sha1160.055 shall.055 shall also be within ready access. This section shall not apply to employees using personal fall arrest systems or safety nets that comply with this Subpart.
- B. Life vests or buoyant work vests shall not be required when employees are conducting inspections that involve climbing structures above or below the bridge deck.

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- C. Prior to each use, all flotation devices shall be inspected for defects that reduce their strength or buoyancy by designated individuals trained by the railroad or railroad contractor. Defective units shall not be used
- D. Where life vests are required by paragraph (a) of this section, ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. Distance between ring buoys shall not exceed 200 feet.
- E. Where life vests are required, at least one lifesaving skiff, inflatable boat, or equivalent device shall be immediately available. If it is determined by a competent person that environmental conditions, including weather, water speed, and terrain, merit additional protection, the skiff or boat shall be manned

19.9 Scaffolding

- A. Scaffolding used in connection with railroad bridge maintenance, inspection, testing, and construction shall be constructed and maintained in a safe condition and meet the following minimum requirements.
 - Each scaffold and scaffold component, except suspension ropes and guardrail systems, but including footings and anchorage, shall be capable of supporting, without failure, its own weight and at least four times the maximum intended load applied or transmitted to that scaffold or scaffold component.
 - 2. Guardrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds applied within two inches of the top edge, in any outward or downward direction, at any point along the top edge.
 - 3. Top edge height of top rails, or equivalent guardrail system member, shall be 42 inches, plus or minus three inches. Supports shall be at intervals not to exceed eight feet. Toe boards shall be a minimum of four inches in height.
 - 4. Mid rails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding, without failure, a force of at least 150 pounds applied in any downward or outward direction at any point along the mid rail or other member.
 - 5. Mid rails shall be installed at a height midway between the top edge of the guardrail system and the walking/working level.
- B. Scaffolds shall not be altered or moved while they are occupied. This paragraph does not apply to vertical movements of mobile scaffolds that are designed to move vertically while occupied.
- C. An access ladder or equivalent safe access shall be provided.
- D. All exposed surfaces shall be prepared and cleared to prevent injury due to laceration, puncture, tripping, or falling hazards.
- E. All scaffold design, construction, and repair shall be completed by competent individuals trained and knowledgeable about design criteria, intended use, structural limitations, and procedures for proper repair.
- F. Manually propelled mobile ladder stands and scaffolds shall conform to the following:

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- 1. All manually propelled mobile ladder stands and scaffolds shall be capable of carrying the design load.
- 2. All ladder stands, scaffolds, and scaffold components shall be capable of supporting, without failure, displacement, or settlement, its own weight and at least four times the maximum intended load applied or transmitted to that ladder stand, scaffold, or scaffold component.
- 3. All exposed surfaces shall be free from sharp edges or burrs.
- 4. The maximum work level height shall not exceed four times the minimum or least base dimensions of any mobile ladder stand or scaffold. Where the basic mobile unit does not meet this requirement, suitable outrigger frames shall be employed to achieve this least base dimension, or equivalent provisions shall be made to guy or brace the unit against tipping.
- 5. The minimum platform width for any work level shall not be less than 20 inches for mobile scaffolds (towers). Ladder stands shall have a minimum step width of 16 inches. The steps of ladder stands shall be fabricated from slip resistant treads.
- 6. Guardrails and Mid rails shall conform to the requirements listed in paragraph (a) of this section.
- 7. A climbing ladder or stairway shall be provided for proper access and egress and shall be affixed or built into the scaffold and so located that in its use it will not have a tendency to tip the scaffold.
- 8. Wheels or casters shall be capable of supporting, without failure, at least four times the maximum intended load applied or transmitted to that component. All scaffold casters shall be provided with a positive wheel and/or swivel lock to prevent movement. Ladder stands shall have at least two of the four casters and shall be of the swivel type.

19.10 Personal Protective Equipment, Generally

With the exception of foot protection, SCRRA or the SCRRA contractor shall provide and the employee shall use appropriate personal protective equipment described in this Subpart in all operations where there is exposure to hazardous conditions, or where this Subpart indicates the need for using such equipment to reduce the hazards to railroad employees. SCRRA or the SCRRA contractor shall require the use of foot protection when the potential for foot injury exists.

19.11 Head Protection

- A. Railroad employees working in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock and burns, shall be provided and shall wear protective helmets.
- B. Helmets for the protection of railroad employees against impact and penetration of falling and flying objects, or from high voltage electrical shock and burns shall conform to the national consensus standards for industrial head protection (American National Standards Institute, Z89.I-1986, Protective Headwear for Industrial Workers). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and I CFR part 51. Copies may be obtained from the American National

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Standards Institute, I I West 4211d Street, New York, NY 10036. Copies may be inspected at the Federal Railroad Administration, Docket Clerk, 400 7th Street, SW, Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC

19.12 Foot Protection

- A. SCRRA requires all employees and contractor employees to wear foot protection equipment when potential foot injury may result from impact, falling or flying objects, electrical shock or burns, or other hazardous condition.
- B. Safety-toe footwear for railroad employees shall conform to the national consensus standards for safety-toe footwear (American National Standards Institute, American National Standard Z41-1991, Standard for Personal Protection-Protective Footwear). Safety-toe boots must be lace up and must be a minimum of 8" in height. Slip on boots are not acceptable fom of protection. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and I CFR part 51. Copies may be obtained from the American National Standards Institute, I I West 4211d Street, New York, NY 10036. Copies may be inspected at the Federal Railroad Administration, Docket Clerk, 400 7th Street, SW, Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

19.13 Eye and Face Protection

- A. Employees and contractor employees shall be provided and shall wear eye and face protection equipment when potential eye or face injury may result from physical, chemical, or radiant agents.
- B. Eye and face protection equipment required by this section shall conform to the national consensus standards for occupational and educational eye and face protection (American National Standards Institute, Z87. I-1989, Practice for Occupational and Educational Eye and Face Protection). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and I CFR part 51. Copies may be obtained from the American National Standards Institute, I I West 42nd Street, New York, NY 10036 Copies may be inspected at the Federal Railroad Administration, Docket Clerk, 400 7th Street, SW, Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.
- C. Face and eye protection equipment required by this section shall be kept clean and in good repair. Use of equipment with structural or optical defects is prohibited
- D. Employees whose vision requires the use of corrective lenses, when required by this regulation to wear eye protection, shall be protected by goggles or spectacles of one of the following types:
 - 1. Spectacles whose protective lenses provide optical correction the frame of which includes shielding against objects reaching the wearer's eyes around the lenses;
 - 2. Goggles that can be worn over corrective lenses without disturbing the adjustment of the lenses; or
 - 3. Goggles that incorporate corrective lenses mounted behind the protective lenses.

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Southern California Regional Rail Authority



ON-TRACK SAFETY MANUAL FOR ROADWAY WORKERS

APPENDICES

Individual forms are available electronically to download or print from the SCRRA Maintenance of Way SharePoint → MOW Document Library

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APPENDIX A: SCRRA'S SAFETY OBJECTIVES

There is **NO** greater importance than safety.

The rules herein govern the operation of all maintenance of way and signal employees, and contractors to the railroad, whose duties require them to work on or about the tracks, or to provide protection for work on or about the tracks. This manual complies with SCRRA SOP 2000.52 Roadway Worker Protection Program (49 CFR 214) and SCRRA's System Safety Program Plan (49 CFR 270). You must be knowledgeable of and follow the instructions in this manual at all times. If you are ever in doubt as to the meaning or application of a rule, ask your foreman, supervisor, or the SCRRA Railroad Roadway Worker in Charge for an explanation.

To ensure your safety and the safety of others, you must:

- Read and understand this On-Track Safety Manual.
- Successfully complete the SCRRA On-Track Safety Manual training program and exam prior to beginning work.
- Have a copy of this manual available for easy reference when on railroad property.
- Immediately inform a supervisor and/or the SCRRA Railroad Roadway Worker in Charge of any action not in compliance with these requirements.
- Attend daily job and safety briefings at the start of each day, prior to beginning work, and when a change in the work plan, personnel or location occurs.

SCRRA railroad management will make unannounced observations and checks to ensure compliance with these safety regulations. The safety objectives are as follows:

PROTECT SAFE TRAIN OPERATIONS	PROMOTE SAFE WORKPLACE	PROTECT RAILROAD PROPERTY
Work in such a manner as not to interfere with or endanger normal train operations	Recognize potential hazards; Understand & follow contractor safety requirements; Prevent injuries	Prevent damage or risk to the SCRRA railroad right-of-way and property

This page must be signed, dated, and on file with SCRRA before you will be permitted to start work on SCRRA's railroad property. By signing below, I acknowledge that I have received (or have access to) the SCRRA Railroad Safety Manual, received instruction in, and understand the requirements of the SCRRA Railroad Safety Manual:

	<u>_</u>	
Print Name	Company	
	<u> </u>	
Signature	Date	

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APPENDIX B: SCRRA RAILROAD OTSM SAFETY ZERO TOLERANCE SAFETY RULES

Any of the following may result in your removal from the property:

- **Safety Training:** Failure to have a current RWP Safety Trained hardhat decal on your hardhat or failure to carry a valid SCRRA On-Track Safety Training ID card.
- RWIC Instructions: Failure to promptly comply with the instructions of the SCRRA Railroad RWIC or Flagman.
- PPE: Failure to wear or use appropriate clothing and PPE as outlined in this Manual.
- Rail: Stepping or standing on the top of a rail.
- Intoxicants: Consuming, being under the influence of or having in your
 possession any alcoholic beverage, intoxicant, controlled substance, drug or
 medication, other than a prescription medication that does not affect your
 alertness or judgment, when on SCRRA's railroad property.
- Cell Phones: Do not conduct cell phone calls within 25 feet from the field side of
 nearest running rail, signal house, or signal equipment. Do not allow a cell phone
 conversation to distract you from maintaining your own personal safety or the
 safety of others. While using a cell phone on railroad property you must remain
 stationary. Use of cell phones for jobsite related communication must be
 preapproved by the RWIC.

rules and potential outcomes if the rules are violated:

Print Name
RWP No.
Company

Signature
Date
Project

By signing below, I acknowledge that I have read and understand the above Zero-Tolerance

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APPENDIX C: On-Track Protection Good Faith Challenge Form

The emp	ployee making the challenge sha	all complete this	form and give to their supervisor	
Name:	Work Location) :	City, State:	
Job Position:	Subdivision:	Track:	Date:	
	MP:	to MP:	Time of Occurrence:	
Designated Place of S	afety:			
If On-Track Safety Pro	cedures are at issue, what proce	edures were appli	ed at the work location?:	
Rule(s) not being com	plied with (include Rule Numbe	rs, if known):		
Description and Numl	oer of Equipment involved	Issue with E	quipment (what is non-compliant)
	List other employees with	Information rega	rding the situation	
	Pondwa	y Worker In Charg	•	
Print Name:	Signature:	Company:	Date:	
	Employee I	Making the Challe	nge	
Print Name:	Signature:	Company:	Date:	
	Supervisor (of the En	nployee Making t	ne Challenge)	
Print Name:	Signature:	Company:	Date:	
Supervisor Determination:		I		

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APPENDIX D: JOB SAFETY BRIEFING FORM

Job Safety Briefing Form (508801)						August 5, 2025
		OB SAFETY BRIEI California Regioi <u>. ANY TRACK</u> AN	nal Rail Au	uthority (SCF		RIEFED.
Name:			orker (Br	iefed with:	ator (RWIC:	
Indicate Today's GTB # Documents	#:	MOW-GO#:				
Date:	Time:	Subdivision: Determined Place of Safety:				'lace of Safety:
Rule of The Week:			Addition	nal Safety To	ppics:	
Location:	Mile Post (MP):	Track Speed: PAX: F	RT:	Track(s)	Method o	of Operation:
Form of On-Track Safety: ☐ Train Approach Warning ☐ Track & Time (T&T)		accessible Track orm B		Г	□ Individual Tra	ain Detection (ITD)
No On Track Safety Neede	d Because:					
Working Around Equipmer Adjacent Controlled Tracks Method of Protection:					oment: Yes otection Need	□ No ed: □ Yes □ No
Provide description of work	k to be performed:					
Provide description of the r	risks and hazards t	hat are present:				
Dravida description of the	mitigations that ar	a baing takanı				
Provide description of the r	miligations that are	e being taken:				
Abbreviations: Personal Protective						

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Job Safety Briefing Form (508801) August 5, 2025 **SIGN IN SHEET** Each employee acknowledges that they understand and agree with the type of on-track safety being provided by signing this job safety briefing form. If no on-track safety is being provided, employee agrees that none is needed to perform the tasks being performed by this work group. Time Clear Time Emp. Initials **Print Name** of Company/Subgroup Briefed Clearing Worksite Signature Sticker# (Must be legible) Worksite 9 10 **Subgroups Working Within the Authority** Original Time Clear Emp. Initials Print Name Time of Clearing Worksite Company/Subgroup Signature Sticker# Briefed Worksite (Must be legible)

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Job Safety Briefing Form (508801) August 5, 2025 Track and Time (T&T) in CTC Territory **Limits Protected** Rules 10.3, 10.3.2, 10.3.4, and 10.3.5 Name or Equipment: Joint And Time Between Time Train Shunt Auth. "OK" Shunt Extended Date T&T/Time Track(s) (Beginning (Ending Auth. Dispatcher Verification Auth. No. Time Verified Time **Behind** Location) Location) **Expires Initials** Location Released □ MP_____ ☐ Crossing ☐ CP____ □ MP____ ☐ Crossing □ СР □ MP__ ☐ Crossing □ CP____ □ MP_____ ☐ Crossing ☐ CP__ ☐ MP____ ☐ Crossing □ CP_ ☐ MP____ ☐ Crossing □ СР Tracks Removed from Service (MOWOR Rule 15.4) Between And **Red Flag Out of Service** Track(s) "OK" Time **TD Initials** MP **Back in Service Time** Date Comments (Beginning (Ending **Expires** Location) Location) Location **Common Abbreviations:** E - East WL - West Limits W-West EE - East End WE - West End EL - East Limits CP - Control Point TK - Track S - Siding JCT - Junction MT – Main Track MP – Mile Post

Job Safety Briefing Form (508801)

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August 5, 2025

Sight Distance for Watchmen/Lookouts and Lone Workers Lone Worker/Lookout must have sufficient sight distance to identify an approaching train and provide warning to the work group (as applicable), allowing enough time for all workers to be in their designated place of safety before the train reaches the minimum separation distance shown on the table for the speed (miles per hour) of the trains where they are working. Place an X in the box proceeding the "Maximum Authorized Speed" (MAS) for trains within the limits specified above. When the maximum authorized speed is not shown, use the next higher speed. Minimum Minimum Minimum MAS in MAS in MAS in Х Separation Separation X Separation X MPH MPH MPH Distance in Feet **Distance in Feet Distance in Feet** 5 147 35 1027 65 1907 2053 10 293 40 1173 70 2200 15 440 45 1320 75 20 587 50 1467 80 2347 25 733 55 1613 85 2493 880 1760 90 2640 30 60 Statement of On-Track Safety for Lone Workers A Lone Worker using Individual Train Detection must fill out portions of this form PRIOR to fouling track. Limits: From:_ _To:___ ___ Time: From____ Watchmen/Lookout Distance Advanced Watchmen/Lookout MP Location/Landmark MP Distance Needed Location/Landmark Needed Watchmen/ Lookout Inaccessible Track Describe Inaccessible Track Method: Time Portable Derail Removed: Portable Derail(s) Installed at: Form B Yellow/Red **Short Flags Short Flag** From MP To MP **From Time Until Time Tracks Red Flags** Flag Locations Location Yes/No Form B No. **OK Time** Dispatch Initials Reminders (Circle Any That Apply Once Performed) 6.32.2 Placed / Removed Dig Alert and SCRRA Dig Authorization Flags Removed Work Affecting Trains Requires Visual Roll-Track(s) Clear of Workers and All Switches Lined for Normal Movement and By of First Train Obstructions Ready for Operations Start of Workday **End of Workday** By signing below, I certify that the Job Safety Briefing Form, ALL INDIVIDUALS MUST SIGN OUT BEFORE LEAVING THE JOB SITE. By signing below, I certify that all employees are clear of page 1 and applicable sections are completed. the work site and have signed out. Additionally, the location is ready for normal operations, unless other arrangements have been made. RWIC Signature: Subgroup Coordinator Signature: **RWIC Signature:** Subgroup Coordinator Signature:

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APPENDIX E: SCRRA Track Warrant

Mark the box for each item instructed

To: At: 1						
PROCEED FROM TO ON TRACK PROCEED FROM TO ON TRACK NOT IN EFFECT UNTIL THIS AUTHORITY EXPIRES AT NOT IN EFFECT UNTIL AFTER THE ARRIVAL OF AT HOLD HAIN TRACK AT LAST NAMED POINT. DO NOT FOUL LIMITS AHEAD OF CLEAR MAIN TRACK AT LAST NAMED POINT. BETWEEN AND MAKE AMOVEMENTS AT RESTRICTED SPEED. LIMITS OCCUPIED BY TRAIN. BETWEEN AND MAKE AMAKE						
3 PROCEED FROM TO ON TRACK 4 WORK BETWEEN AND ON TRACK 5 NOT IN EFFECT UNTIL 6 THIS AUTHORITY EXPIRES AT 7 NOT IN EFFECT UNTIL AFTER THE ARRIVAL OF AT 8 HOLD HAIN TRACK AT LAST NAMED POINT. 9 DO NOT FOUL LIMITS AHEAD OF 10 CLEAR MAIN TRACK AT LAST NAMED POINT. 11 BETWEEN AND MAKE A						
4						
5	EED FROM TO ON TRACK					
6	(BETWEEN AND ON TRACK					
7 NOT IN EFFECT UNTIL AFTER THE ARRIVAL OF 8 HOLD HAIN TRACK AT LAST NAMED POINT. 9 DO NOT FOUL LIMITS AHEAD OF 10 CLEAR MAIN TRACK AT LAST NAMED POINT. 11 BETWEEN AND MAKE A MOVEMENTS AT RESTRICTED SPEED. LIMITS OCCUPIED BY TRAIN. 12 BETWEEN AND MAKE A						
8						
9 DO NOT FOUL LIMITS AHEAD OF 10 CLEAR MAIN TRACK AT LAST NAMED POINT. 11 BETWEEN AND MAKE A MOVEMENTS AT RESTRICTED SPEED. LIMITS OCCUPIED BY TRAIN. 12 BETWEEN AND MAKE A						
10 CLEAR MAIN TRACK AT LAST NAMED POINT. 11 BETWEEN AND MAKE A MOVEMENTS AT RESTRICTED SPEED. LIMITS OCCUPIED BY TRAIN. 12 BETWEEN AND MAKE A						
11 BETWEEN AND MAKE A MOVEMENTS AT RESTRICTED SPEED. LIMITS OCCUPIED BY TRAIN. 12 BETWEEN AND MAKE A	DO NOT FOUL LIMITS AHEAD OF					
MOVEMENTS AT RESTRICTED SPEED. LIMITS OCCUPIED BY TRAIN. 12	CLEAR MAIN TRACK AT LAST NAMED POINT.					
12 D BETWEEN AND MAKE	٩LL					
	MOVEMENTS AT RESTRICTED SPEED. LIMITS OCCUPIED BY TRAIN.					
MOVEMENTS AT DESTRUCTED SPEED, LIMITS OSCULPIED BY TRAIN	ALL					
MOVEMENTS AT RESTRICTED SPEED. LIMITS OCCUPIED BY TRAIN.						
13 □ DO NOT EXCEED MPH BETWEEN AND						
14 □ DO NOT EXCEED MPH BETWEEN AND						
15 ☐ FLAG PROTECTION NOT REQUIRED AGAINST FOLLOWING TRAINS ON THE SAME TRACK						
16 □ TRACK BULLETIN IN EFFECT ON SUBDIVISION						
17 OTHER SPECIFIC INSTRUCTIONS:						
20 BE PREPARED TO STOP AT FOLLOWING SWITCH(ES) UNTIL KNOWN TO BE IN NORMAL POSITION:						
21 PERMISSION TO LEAVE FOLLOWING SWITCH(ES) IN REVERSE POSITION:	PERMISSION TO LEAVE FOLLOWING SWITCH(ES) IN REVERSE POSITION:					
NO. OF BOXES MARKED LIST BOX NUMBERS						
OK DISPATCHER						
RELAYED TO COPIED BY						
LIMITS REPORTED CLEAR AT BY						
SWITCH/DERAIL/SWITCH POINT LOCK NAME AND LOCATION TIME OPERATED TIME RESTOR	ED					

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APPENDIX F: Form B Request

Submit form to <u>FormBRequest@scrra.net</u> or fax to (909) 596-6852 no later than 14-hours before it goes into effect.

Subdivision			
Effective date			
Time	From	Until	
Limits	MP	MP	
Track(s)			
Gang			
Foreman			Call back No./Fax No.
Short Flags			Call Back No./1 ax No.
		FOR SCRRA USE ONLY	
Verified by Disp	oatcher		
Name		Time	Date

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APPENDIX G: TRACK AND TIME IN CTC TERRITORY

Track and Time in CTC Territory												
Name or Equ	Name or Equipment: Limits Protected Rules 10.3, 10.3.2, 10.3.4, and 10.3.5											
Date	Joint T&T/Time Behind	Auth. No.	Track(s)	Between (Beginning Location)	And (Ending Location)	Time Auth. Expires	"OK" Time	TD Initials	Shunt Verification Location	Shunt Verified	Extended Time	Time Auth. Released
									☐ MP ☐ Crossing ————————————————————————————————————			
									☐ MP ☐ Crossing ☐ CP			
									☐ MP ☐ Crossing ————————————————————————————————————			
									☐ MP ☐ Crossing ☐ CP			
									☐ MP ☐ Crossing ☐ CP			
									☐ MP ☐ Crossing ☐ CP			
E – East	Common Abbreviations:											

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RWIC

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APPENDIX H: RWIC'S SUBGROUP COORDINATOR TRACKING FORM

AUTHORITY NUMBI	ER:	RWIC'S SUBGROUP TRACKING FORM					METRO LINK		
Train ID	Time RWIC was Contacted	SUBGROUP#1	SUBGROUP#2	TIME CLEARED SUBGROUP#3	SUBGROUP#4	SUBGROUP#5	Time Subgroups Allowed to Resume Work		
		ML#	ML#	ML#	ML#	ML#	resume vvoik		
1.									
2.									
3.									
4.									
									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									
15.									
	•				•				

PROPERTY OF SCRRA

SUBDIVISION

DATE

METROLINK.

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AUTHORITY NUMBER:					
LIMITS:	TO:				
TIME FROM:	UNTIL				

RWIC'S SUBGROUP TRACKING FORM



				TIME CLEARED			Time Subgroups
Train ID	Time RWIC was Contacted	SUBGROUP#1	SUBGROUP#2	SUBGROUP#3	SUBGROUP#4	SUBGROUP#5	Time Subgroups Allowed to Resume Work
		ML#	ML#	ML#	ML#	ML#	
6.							
7.							
8.							
9.							
0.							
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
0.							
	1	1	1	<u>.t</u>	1	1	1
				IVISION	_		DATE

RWIC

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METROLINK.

APPENDIX I: SUBGROUP COORDINATOR'S WORKING GROUP TRACKING FORM

AUTHORITY NUM	IBER:	SUBGROUP				METDO		
LIMITS:	_ то:	- 1	COORDIN			IYIE	TRU	
TIME FROM:	UNTIL	WORK GROUP TRACKING FORM				METRO LINK		
	EASTB	OUND			WEST	BOUND		
Engine or On- Track Equipment Number	Time RWIC contacted Subgroup	Time Work Group Reported Clear	Time Work Group authorized to resume work	Engine or On- Track Equipment Number	Time RWIC contacted Subgroup	Time Work Group Reported Clear	Time Work Group authorized to resume work	
1.				1.				
2.				2.				
3.				3.				
4.				4.				
5.				5.				
6.				6.				
7.				7.				
8.				8.				
9.				9.				
10.				10.				
11.				11.				
12.				12.				
13.				13.				
14.				14.				

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SUBDIVISION

JOB SITE MP

DATE

SUBGROUP COORDINATOR

METROLINK.

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AUTHORITY NUMBER:	SUBGROUP
LIMITS: TO:	COORDINATOR'S
LIMITS TO:	WORK GROUP TRACKING
TIME FROM:UNTIL	FORM



	EASTB	OUND		WESTBOUND			
Engine or On- Track Equipment Number	Time RWIC contacted Subgroup	Time Work Group Reported Clear	Time Work Group authorized to resume work	Engine or On- Track Equipment Number	Time RWIC contacted Subgroup	Time Work Group Reported Clear	Time Work Group authorized to resume work
15.				15.			
16.				16.			
17.				17.			
18.				18.			
19.				19.			
20.				20.			
21.				21.			
22.				22.			
23.				23.			
24.				24.			
25.				25.			
26.				26.			
27.				27.			
28.				28.			
RWIC	SUBGI	ROUP COORDINATO	DR SU	BDIVISION	JOB SITI	E MP	DATE

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APPENDIX J: Fall Protection Use Form

THIS FORM MUST BE COMPLETED PRIOR TO USE OF ANY FALL PROTECTION EQUIPMENT. DATE: _____ LOCATION: WORK TO BE PERFORMED: FALL PROTECTION EQUIPMENT TO BE USED: DIRECTIONS TO WORK SITE TO BE GIVEN TO EMERGENCY PERSONNEL IN CASE OF EMERGENCY: PHONE NUMBERS & PAGER NUMBERS FOR SUPERVISORS, MANAGER, SAFETY MANAGER, CCF AND DISPATCHER:____

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Fall Protection Sign-in Sheet				
Print Name	Signature	Company/ Work Group	Time Briefed	

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APPENDIX K: HI-RAIL VEHICLE SAFETY CHECKLIST

INSTRUCTIONS: If an item is acceptable, place a mark "Y" next to the item. If an item is nonstandard, place an "X" next to the item and describe the remedial action to correct the condition in the notes section at the bottom of the page. If an item does not apply to your Hi-Rail vehicle, write "N/A" in the space next to the item.

MUST BE COMPLETED PRIOR TO USE OF HI-RAIL VEHICLE.

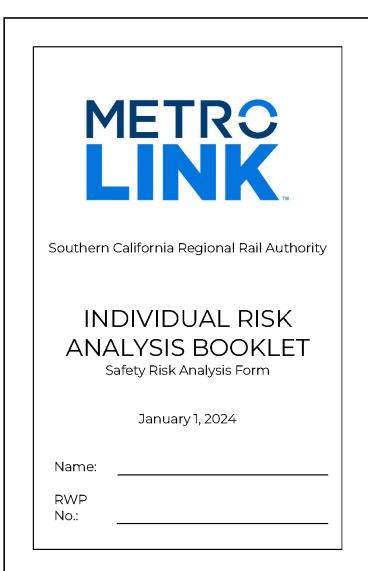
Y – Acceptable X - Nonstandard N/A – Not applicable

VEHICLE EQUIPMENT			
Brakes Windshield Wipers Guide Wheels Guide Wheel Bearings Nuts and Bolts Lights Locking Pins Tire Tread Wear Hi-rail Lubrication	Hi-rail Hydraulic Fluid Brake Lights Amber Roof Lights Head Lights Horn Back-up Alarm Mirrors Company Radio		
VEHICLE CONTENTS			
First Aid Kit Fire Extinguisher MOW Operating Rules Fuses Mow Safety Rules Manufacturer's Hi-rail Equipment Manual White Lights Spare tire and Jack Fuel Card Timetable / Special Instructions MOW Operating Rules Mow Safety Rules Track Bulletins			
Notes:			
	[]	I.S. :	
Completed by	Vehicle/Equipment Number	Date	

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APPENDIX L: SCRRA RISK ANALYSIS FORM



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A risk analysis form must be completed when entering the right-of-way and prior to fouling the tracks. Following the job briefing, this form is completed by each individual and discussed with their working group.

This process helps identify hazards and encourages communication around mitigations and risk reduction. This form complies with SCRRA's System Safety Program Plan (49 CFR 270)

Risk Analysis includes an assessment of the likelihood and severity of the consequences of the hazards, including existing mitigations, and prioritization of the hazards for tasks to be performed.

Retain all completed Risk Analysis forms for a minimum of three working days.

Each roadway worker (employee) shares responsibility for ensuring that On-Track Safety is provided.

Each roadway worker must be aware of their **Right to Challenge**



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RISK ANALYSIS TABLE

Severity Rating

VALUE	SCORE	DESCRIPTION
Catastrophic	4	Operating conditions are such that human error, environment, design deficiencies, element, subsystem or component failure, or procedural deficiencies may commonly cause death or major system loss, thereby requiring immediate cessation of the unsafe activity or operation.
Critical	3	Operating conditions are such that human error, environment, design deficiencies, element, subsystem or component failure or procedural deficiencies may commonly cause severe injury or illness or major system damage thereby requiring immediate corrective action.
Marginal	2	Operating conditions may commonly cause minor injury or illness or minor systems damage such that human error, environment, design deficiencies, subsystem or component failure or procedural deficiencies can be counteracted or controlled without severe injury, illness or major system damage.
Negligible	1	Operating conditions are such that personnel error, environment, design deficiencies, subsystem or component failure or procedural deficiencies will result in no, or less than minor, illness, injury or system damage.

Probability of Risk Occurring

VALUE	SCORE	DESCRIPTION
Frequent	5	Likely to occur often in the life of an item
Probable	4	Will occur several times in the life of an item
Occasional	3	Likely to occur sometime in the life of an item
Remote	2	Unlike but possible to occur in the life of an item
Improbable	1	So unlikely, it can be assumed occurrence may
		not be experienced

Risk Rating = Probability x Severity

Legend	10-20 High	7-10	4-6	0-3 Low		
		Serious	Medium			
PROBABILITY	SEVERITY					
	Catastrophic	Critical	Marginal	Negligible		
Frequent - 5	High 20	High 15	High 10	Medium 5		
Probable - 4	High 16	High 12	Serious 8	Medium 4		
Occasional - 3	High 12	Serious 9	Medium 6	Low 3		
Remote - 2	Serious 8	Medium 6	Medium 4	Low 2		
Improbable -1	Medium 4	Low 3	Low 2	Low1		

BEFORE YOU BEGIN WORK YOU SHOULD KNOW:

Who is providing the on-track safety?

What type of on-track safety is being provided?

Which tracks are protected?

Are there adjacent tracks?

What are your working limits?

What time does your on-track safety start and end?

When are trains or equipment expected?

What is the maximum track speed?

What kind of warning will be given?

Where do I stand clear?

What is everyone's job?

Are there special PPE requirements?

What are the Emergency Procedures for Fall Protection rescue?

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Time/Date:	RV	VIC:	
Subdivision:	RC	DTW:	
Designated Place of Safety:			
Location:			
Max. Authorized Speed: Pass	·——	/Freigh	t
WORKING AROUND:			
MOW Equipment		Yes	□ No
On-Track Equipment		Yes	□ No
Adjacent Controlled Tracks	5 0	Yes	□ No
□ No On-Track Safety Neede Foul Tracks			
□ Form B Track Bulletin No. From: M.P To M.P Track(s): □ MT 1 □ MT 2 □ Othe	L	Intil:	
□ Form B Track Bulletin No. From: M.P To M.P Track(s): □ MT 1 □ MT 2 □ Othe	er:	Intil:	<u> </u>
□ Form B Track Bulletin No. From: M.P To M.P	er:	Until:	
□ Form B Track Bulletin No. From: M.P To M.P Track(s): □ MT 1 □ MT 2 □ Othe	er:L	LIMITS M.P. To M	.P

Protection Limits:	From:	To:
Track(s): • MT1 • N	/IT 2 □ Other:	
OKTime:	Until:	
DISPR Initials:	Void Time	:
Authority No		
Protection Limits:	From:	To:
Track(s): • MT1 • N	ИТ 2 🗆 Other:	
OKTime:	Until:	
DISPR Initials:	Void Time	:
Authority No		
Protection Limits:	From:	To:
Track(s): - MT1-N	ИТ 2 = Other:	
OKTime:		
DISPR Initials:	Void Time	:
Authority No		
Protection Limits:	From:	To:
Track(s): MT1 N	ИТ 2 a Other:	
OKTime:	Until:	
DISPR Initials:		
Authority No		
Protection Limits:		
Track(s): • MT1 • N		
OKTime:		
DISPR Initials:	Void Time	:
Authority No		
Protection Limits:	From:	To:
Track(s): • MT1 • N	ИТ 2 = Other:	
OKTime:	Until:	
DISPR Initials:	Void Time	: <u></u>

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Types of activities being p	erformed by workgroup): 	How group is mitigating	g risk:	
		1 1 1			
		_			
Risks and hazards associat	ted with the work being	,	Piels Perior	My	
Risks and hazards associat performed:	ted with the work being	,	Risk Rating Probability & Severity	My Individual	Group
Risks and hazards associat performed:	ted with the work being	,	Probability x Severity		Group
Risks and hazards associat performed:	ted with the work being		Probability x Severity Severity Rating	Individual	Group
Risks and hazards associat performed:	ted with the work being		Probability x Severity Severity Rating from Risk Table:	Individual	Group
Risks and hazards associat performed:	ted with the work being		Probability x Severity Severity Rating	Individual	Group
Risks and hazards associat performed:	ted with the work being		Severity Rating from Risk Table: Probability of Risk	Individual	Group
Risks and hazards associat performed:	ted with the work being		Probability x Severity Severity Rating from Risk Table: Probability of Risk Occurring: Total Risk Rating:	Individual Task	Group
Risks and hazards associat performed:	ted with the work being		Probability x Severity Severity Rating from Risk Table: Probability of Risk Occurring:	Individual Task	Group
Risks and hazards associat performed:	ted with the work being		Probability x Severity Severity Rating from Risk Table: Probability of Risk Occurring: Total Risk Rating:	Individual Task	Group
Risks and hazards associat	ted with the work being		Probability x Severity Severity Rating from Risk Table: Probability of Risk Occurring: Total Risk Rating:	Individual Task	Group
Risks and hazards associat	ted with the work being		Probability x Severity Severity Rating from Risk Table: Probability of Risk Occurring: Total Risk Rating:	Individual Task	Group
Risks and hazards associat	ted with the work being		Probability x Severity Severity Rating from Risk Table: Probability of Risk Occurring: Total Risk Rating:	Individual Task	

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I AM SAFETY

We all have the right and obligation to work safely. Our goal is to reduce the possibility of negative results by reducing the risk to the lowest practical level

I Identify the RiskA Assess the RiskM Mitigate the Risk

IN CASE OF EMERGENCY CALL

DISPATCHING OPERATIONS CENTER (DOC)
909.593.3584

SECURITY OPERATIONS CENTER (SOC) 866.640.5190

RISK ANALYSIS TABLE

Severity Rating

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		Serious	Medium		
PROBABILITY	SEVERITY				
	Catastrophic	Critical	Marginal	Negligible	
Frequent - 5	High 20	High 15	High 10	Medium 5	
Probable – 4	High 16	High 12	Serious 8	Medium 4	
Occasional - 3	High 12	Serious 9	Medium 6	Low 3	
Remote – 2	Serious 8	Medium 6	Medium 4	Low 2	
Improbable -1	Medium 4	Low 3	Low 2	Low 1	





Stay safe, Work smart

Safety is a choice you make, not a chance you take