



**METROLINK®**

# **RWP Safety Manual**

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**FINAL**

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**September 1, 2020**



## List of Contributors

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## Contact Information

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### Critical Contact Information

- **Emergencies** – Call 911
- **SCRRA Chief Dispatcher** – (909) 593-0661 or (888) 446-9715
- **Signal Emergencies and Grade Crossing Problems** – (888) 446-9721
- **SCRRA Sheriff's Dispatch Center** – (323) 563-5280
- **Signal and Communications Cable Location** – (909) 592-1346

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## SCRRRA RWP Safety Manual Revision Log

Submitted By: Don Filippi

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0	Don Filippi	9/1/2020	Final Version



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## SCRRA’s Safety Objectives

***There is No Greater Importance than Safety.***

***All Final Decisions Concerning the Railroad will be Solely Made by SCRRA***

This manual governs all non-railroad contractor and personnel activities on or affecting Southern California Regional Rail Authority’s railroad property and/or operating envelope. Non-railroad contractors and personnel are any person, party, company or individuals, defined as *Roadway Workers* in 49 CFR Part 214, whose activities are conducted within, may encroach upon, or impact the SCRRA railroad right-of-way and/or operating envelope. 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 Roadway Worker in Charge for an explanation.

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

- Read and understand this *Roadway Worker Protection Training Manual*.
- Successfully complete the SCRRA Railroad Contractor Safety Training program and exam prior to beginning work.
- Have a copy of this manual available for easy reference when on SCRRA railroad property.
- 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.
- Immediately inform a supervisor and/or the SCRRA Roadway Worker in Charge of any action not in compliance with these requirements.

SCRRA management will make unannounced observations and checks to ensure compliance with these safety regulations.

### OBJECTIVES

Protect Safe Train Operations	Promote a Safe Workplace	Protect SCRRA’s Railroad Property
Work in such a manner as not to interfere with or endanger normal train operations	Recognize potential hazards; Understand and follow Contractor Safety requirements; Prevent injuries	Prevent damage or risk to the SCRRA railroad right-of-way.

## 1.0 Definitions

**Amtrak:** Nationwide intercity rail passenger service operated by the National Rail Passenger Corporation. Amtrak's *Surfliner* trains operate over the River and Orange Subdivisions.

**Ballast:** Crushed rock supporting and restraining the track structure.

**BNSF:** *Burlington Northern Santa Fe*, the interstate freight train operator on the San Gabriel, Pasadena, Olive, River (West Bank), Perris Valley, Short Way, Redlands and Orange Subdivisions.

**California Public Utilities Commission (CPUC):** The state agency that administers and enforces both state and federal regulations of the railroad industry.

**Centralized Traffic Control (CTC):** A block system that uses block signal indications to authorize train movements.

**Contractor:** As used in this manual, refers to any party, personnel or authorized worker, other than a railroad employee, who is working on, or in a manner that could affect, railroad property.

**Control Point (CP):** The location of absolute signals controlled by a control operator.

**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.

**Dispatch Operations Center (DOC):** SCRRRA train dispatching facility in Pomona, CA. Railroad traffic and maintenance activities on SCRRRA'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.





**Federal Railroad Administration (FRA):** FRA's Office of Railroad Safety promotes and regulates safety throughout the Nation's railroad industry. The office executes its regulatory and inspection responsibilities through a diverse staff of railroad safety experts. The staff includes 400 Federal safety inspectors who operate out of eight regional offices. Each regional administrator is supported by two deputy regional administrators, chief inspectors, supervisory specialists, grade crossing safety managers and safety inspectors for five of the safety disciplines focusing on compliance and enforcement in:

- Hazardous Materials
- Motive Power and Equipment
- Operating Practices
- Signal and Train Control
- Track

Other functions include:

- Railroad safety and customer training (including State safety inspectors)
- Accident and employee fatality investigations and reporting
- Partnerships between labor, management, and the agency that address systemic initiatives
- Development and implementation of safety rules and standards.

**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.

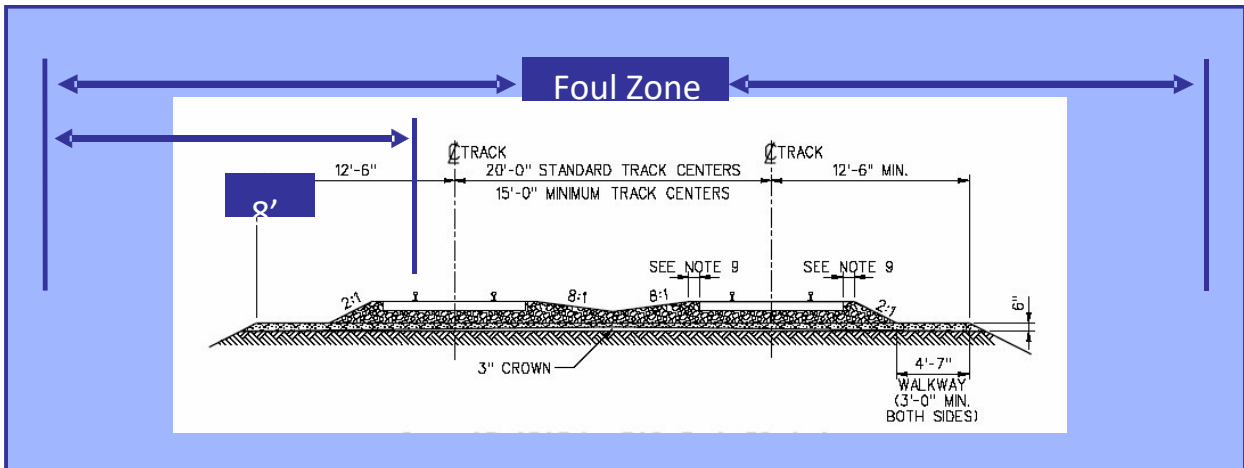
**Flagging Protection:** The protection, by an RWIC, of workers and/or work within or near the Foul Zone of the railroad right-of-way. See *Roadway Worker-In-Charge and On-Track Safety*.

**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.

**Foul time:** is a method of establishing working limits on controlled track in which a roadway worker is notified by the train dispatcher or control operator that no trains will operate within a specific segment of controlled track until the roadway worker reports clear of the track, as prescribed in §214.323 of this part.

**Foul Zone:** The 8-foot zone on either side of any track on SCRRRA's railroad. This defines the minimum portion of the railroad right-of-way where a person is considered to be fouling the track.





**General Code of Operating Rules (GCOR):** is a set of operating rules for railroads in the United States. The GCOR is used by Class I railroads west of Chicago, most of the Class II railroads, and many Short-line railroads.

**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.

**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.

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

**Metrolink:** Commuter rail service operated by the Southern California Regional Railroad Authority (SCRRA) in Los Angeles. Metrolink trains operate over SCRRA's railroad connecting Oceanside with Orange, Los Angeles, Riverside, and San Bernardino Counties.

**NCTD:** North County Transit District, owner of the railroad which extends from the Orange/San Diego County line to one block south of Broadway St. in downtown San Diego and between Oceanside and Escondido.

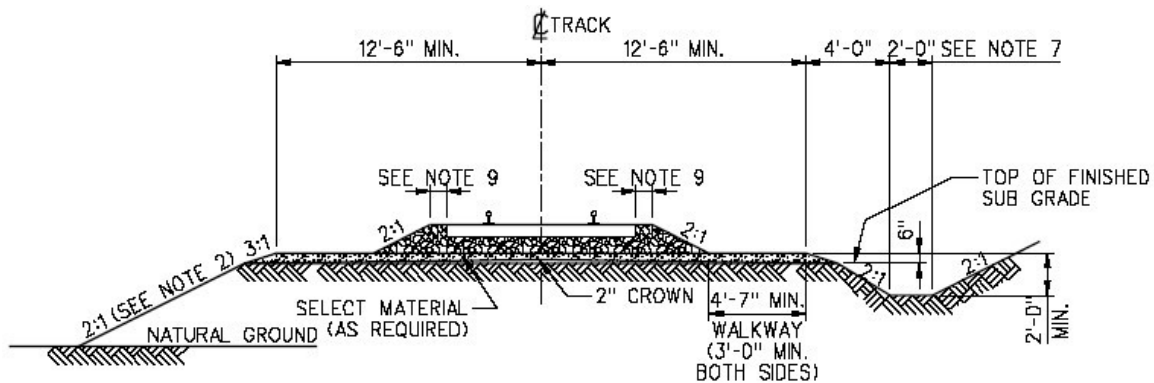
**On-Track Equipment:** Maintenance-of-way machines other than trains or engines, such as track cars, hi-rail vehicles, tampers, ballast regulators, etc. which are operated on the track.

**On-Track Safety (OTS):** 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.



**Right-of-Entry Permit (ROE):** A permit issued by SCRRA approving an outside party project that is on, crosses, or impacts SCRRA's property. A ROE permit *plus* prearranged Flagging Protection are required before an outside party may legally access SCRRA's railroad property. Railroads have regulatory obligations to protect their traffic and infrastructure and control access to the right-of-way for work, construction, and other projects. The SCRRA Engineering / Standards and Design Department administers SCRRA's Railroad Right-of-Entry permitting process.

**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.



ROADBED SECTIONS AT FILLS

**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.

**Roadbed:** A graded area beneath and on either side of the track structure that provides support of and drainage for the track.

**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:** 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 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 SCRRRA's railroad property.

**Switch:** A device consisting of two movable rails, necessary connections, and operating parts designed to turn a locomotive or car from the track on which it is running to another track. Also called a *Turnout*.

**Track Warrant Control:** A method to authorize train movements or protect men or machines on a main track within specified limits in a territory designated by the timetable.

**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.

**Train Dispatcher:** The Dispatcher controlling train traffic and track access activities on SCRRRA's railroad at any given time. The train dispatcher works from the DOC and controls all SCRRRA owned subdivision. The railroad equivalent to an Air Traffic Controller.

**Turnout:** See *Switch*.

**Union Pacific Railroad (UPRR):** the interstate freight train operator on the Rialto Industrial Lead, San Gabriel, River, Valley, Orange, Montalvo, and Ventura Subdivisions.

**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 SCRRRA property will be trained annually.

**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.

## 2.0 Right-of-Entry to SCRRRA Railroad Property

Southern California Regional Rail Authority (SCRRRA) owns, maintains, and improves their railway. In addition, SCRRRA operates the commuter rail service that is comprised of rail properties owned by the Los Angeles County Metropolitan Transportation Authority (Metro), the Orange County Transportation Authority, the Riverside County Transportation Commission, San Bernardino Associated Governments and the Ventura County Transportation Commission. Other operators on the line include Amtrak, Union Pacific Railroad and the BNSF Railway.

SCRRRA's railroad is part of the U.S. General Railroad System of Transportation as defined by the Interstate Commerce Act. SCRRRA has legal and regulatory obligations and authority to protect the railroad from disruption or damage. Therefore, SCRRRA controls access to their railroad property and exercises some authority over projects on adjacent land that could affect the railroad.

Prior to entering upon SCRRRA's railroad property, outside parties must obtain a "Right-of-Entry" permit from the SCRRRA Engineering / Standard and Design Department. This Department will coordinate with the contractor to have all necessary documents, plans and agreements submitted, reviewed, approved, and executed. Entering SCRRRA's railroad property without a Right-of-Entry permit is trespassing. Failure to obtain proper approvals for work on or adjacent to SCRRRA's railroad property can result in the stoppage of work and the removal of all unauthorized personnel from the property.

### 2.1 Review and Approval Process

SCRRRA reviews applications for Right-of-Way Encroachment and SCRRRA Form No. 6 Temporary Right-Of-Entry Agreement to ensure compliance with structural, technical and safety requirements which include, but are not limited to:

- Location of work;
- Horizontal and vertical clearances;
- Shoring, jacking and false work;
- Maintainability;
- Drainage impacts;
- Property access impacts;
- Compatibility with current and future right-of-way use plans;
- Any issue determined to impact railroad safety or operations;

Once a Right-of-Entry permit has been issued, The Contractor and their subcontractors shall be required to attend a SCRRRA Basic Right-of-Way Safety Training Class prior to receiving permission to enter the Right-of-Way. Upon completion of safety training and prior to start of work activities, the Contractor shall notify SCRRRA's consultant/contractor, to schedule RWIC Flagging Services. SCRRRA has two contractors who provide SCRRRA Basic Right-of-Way Safety Training and RWIC Flagging Services, based on Subdivision. To schedule Safety Training and RWIC Flagging follow instructions outlined METROLINK Temporary Right-Of-Entry Agreement SCRRRA Form No. 6 Section 10. Requests for safety training need to be submitted at least 72 hours in advance of training date. RWIC Flagging scheduling requests must be submitted a minimum of fifteen (15) working days prior to beginning work on the Right-of-Way.

## 2.2 Documentation and Identification

When on railroad property, a copy of the Right-of-Entry permit for the project must be available for inspection. In addition, when entering railroad property, you must:

- Be current with the required SCRRRA RWP Safety Training.
- Display a current SCRRRA RWP Safety Trained decal on your hard hat.
- Carry a valid photo ID (driver's license, employer issued ID card, etc.)

***Failure to have an approved Right-of-Entry Permit, RWP photo ID and/or a current SCRRRA Roadway Worker Trained hardhat decal is grounds for removal from the property.***

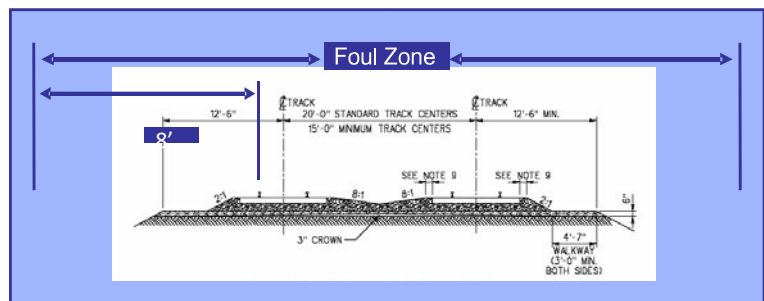
### 3.0 Flagging Protection

SCRRA's railroad is in one of the busiest railroad corridors in the country. On average, about 181 trains each weekday traverses the system, most of which are fast-moving passenger trains. On-time performance of these trains is critical to the performance of the entire system, which is 536 miles long with Metrolink responsible for the maintenance and dispatch of 412 miles. The balance of the mileage is Host Railroad track comprised of 58.0 miles over the BNSF Railway San Bernardino Subdivision, 107.3 miles over the Union Pacific Railroad (UPRR) on the Los Angeles and Santa Barbara Subdivisions, and 17.2 miles over the North County Transit District (NCTD) San Diego Subdivision. Delays or interruptions to traffic here can have significant impacts on passenger and freight trains hundreds of miles away from here. For this reason, regardless of the nature of the work involved, it usually must be conducted "under traffic", without halting or delaying trains. Federal regulations define how to protect trains and workers. To accomplish this safely, work is conducted under "Flagging Protection" and the supervision of a railroad Flagman.

All parties must obtain a right-of-entry permit before entering the right-of-way. Those with an approved right-of-entry permit are required to notify SCRRA's consultant/contractor a minimum of fifteen (15) working days prior to beginning work on the Right-of-Way and secure any safety RWIC services SCRRA deems necessary. All Contractor personnel must receive the required SCRRA RWP safety training. Only after a permit is issued, all workers are safety-trained, and a qualified railroad RWIC is present may work begin.

#### 3.1 When Flagging is Required

Flagging protection is required any time personnel work in the railroad right-of-way, or work on non-railroad property near or adjacent to the Foul Zone or right-of-way with the



potential to impact railroad operations or infrastructure. SCRRA or its designee has sole discretion to determine the need for flagging protection in special circumstances. A Flagman is a qualified railroad employee certified on the GCOR, trained in the legal, regulatory, and procedural requirements of the job duties, and designated to provide the necessary protection. The SCRRA Railroad Roadway Worker in Charge assigned to the job is a Flagman. Some jobs may require additional Flagmen; however, only one Flagman may act as the RWIC.

Some examples of typical situations requiring flagging protection are:



- A utilities crew installing pipe, cable, electrical lines or other infrastructure that crosses over or underneath the railroad tracks.
- A cable TV or phone crew stringing cable on poles adjacent to the tracks.
- A construction crane or excavator being used adjacent to railroad property, but with a boom that could potentially swing into the Foul Zone of the active tracks.
- A landscape crew trimming trees and brush along a street or park directly adjacent to and within 25-feet of the tracks.
- A building Contractor excavating property adjacent to the railroad tracks that could cause settlement or ground movement affecting the railroad right-of-way.
- A meeting or field review occurring within or near the Foul Zone, such as engineers planning construction work or inspecting facilities.
- A county survey crew marking property lines adjacent to the right-of-way.
- A construction crew building or replacing railroad infrastructure under contract to SCRRRA (Roadway Workers).
- A street maintenance crew repainting striping or repairing potholes at a public grade crossing.
- Caltrans working on a freeway overpass where it crosses the railroad tracks.
- A large-scale public event, such as a marathon foot race or street fair, that brings large numbers of people into close proximity to the railroad right-of-way. Public events must confirm with SCRRRA if a Right-of-Entry and Flagging protection is required.



In general, any time work equipment is operated, or when any type of construction, jacking, boring, landscaping, clearing, grubbing or demolition activity occurs in close proximity to the railroad, or has the potential to endanger the safe operation of the railroad, regardless of elevation above or below track, flagging protection is required.

### 3.2 Roadway Way in Charge (RWIC) / Flagman

An SCRRRA Railroad Flagman will be assigned as the FRA-required Roadway Worker in Charge (RWIC) for your job. The RWIC establishes OnTrack Safety to protect jobsite workers from being struck

by a train or on-track equipment. Some jobs may have one or more additional Flagmen assigned to the project, working under the RWIC's supervision. However, only one Flagman is designated the RWIC. The RWIC is the primary on-site SCRRRA representative and authority. The

RWIC oversees the general safety of the project and interfaces with the Contractor's jobsite foreman or manager.

SCRRRA Railroad RWIC's are specially trained and qualified under FRA

regulations and maintain the certifications required to perform the required duties. They will provide selected safety training, daily job and safety briefings and protection to assure both the safety of the Contractor's work environment and the safe passage of trains. The RWIC has absolute authority to temporarily halt work and to remove Contractor employees from the right-of-way in order to assure safety. In all cases Contractor employees must comply immediately with the instructions of the RWIC.



### 3.3 On-Track Safety

On-Track Safety (OTS) is a condition where workers authorized to be on or near the track, under the protection of a railroad Flagman/RWIC, are protected from trains or on-track equipment by one of the following procedures:

**a) Exclusive Track Occupancy:** The Flagman/RWIC, in coordination with the Train Dispatcher, assumes control over a section of the railroad and prevents any other train or equipment from entering into it without his or her permission. This section of the railroad, established between Mileposts or Control Points, becomes the "Working Limits" for a particular job and is temporarily "owned" by the RWIC. Exclusive Track Occupancy may be established by:

- **Form B Protection:** Working limits are established on the railroad in advance by an RWIC for a specified time frame. The Train Dispatcher then issues a “Form B” bulletin to all trains, which identifies the RWIC, the location and the time frame of the working limits. The RWIC may also mark each ends of the limits with red metal placards called “flags”, posted adjacent to the track. This red flag requires a train to stop until the RWIC grants it permission to proceed through the limits. When contacted by a train, the RWIC will clear all workers and equipment from Foul Zone and ensure that it is safe before permitting the train to proceed. If the RWIC does not grant the train permission to proceed, the train must stop and not enter the limits. This method is commonly used on SCRRRA’s railroad as it permits trains to pass through the work limits with little or no delay while giving workers as much working time as possible.

- **Track & Time:** This procedure is used only in CTC. When requested by an RWIC (and traffic permits), the Train Dispatcher temporarily blocks-off the desired section of railroad and places it under the control of the RWIC for a specific period of time. Until released by the RWIC, the Train Dispatcher is prevented from routing any trains into the Track & Time limits. Although obligated to release it by the expiration time, the Dispatcher cannot allow any trains into the limits until the RWIC has actually done so, even if the expiration time has passed. Track & Time is used infrequently to protect Contractors on the railroad as it does not allow much working time between each passing train and has the potential to delay trains.

- **Track Warrant:** (Used only in Dark Territory) A track warrant is a written authority granted by the Train Dispatcher to a train or to an RWIC to occupy a section of track. Without a track warrant, no train or work group is allowed to occupy the track. Once issued, another track warrant covering or overlapping the same territory cannot be issued without the permission of the train or RWIC holding the first track warrant. This prevents a train from entering working limits established by an RWIC without that RWIC’s permission. The RWIC will not permit a train into the limits until all workers and equipment are safely clear of the Foul Zone.

**b) Watchman/Lookout:** This procedure is used in select circumstances where Contractor workers may be working near, but not fouling, a track, or on a project that is on adjacent property and has the potential to affect the railroad. In this case, the Flagman does not establish working limits. Instead, he or she monitors the locations of approaching trains and alerts workers when a train approaches. Trains are not required to stop or to contact the Flagman as they approach; however, the Flagman has the ability to contact and stop trains in an emergency. The sole purpose of the Flagman is to provide safety. Do not ask the Flagman to perform any other task.

**c) Inaccessible Track:** Used in yards and other auxiliary tracks where traffic is not controlled by the Train Dispatcher. The RWIC renders a section of track inaccessible by lining and locking switches, with an exclusive padlock, away from the work area, or by placing derails on the track, or by removing a section of rail from the track approaching the work location. Red flags are usually placed on the track to alert train crews that the track is inaccessible. This physically prevents a train or on-track equipment from entering the work area unless specifically allowed by the RWIC.

**d) Track Out-of-Service:** On tracks that have infrequent train traffic, the RWIC may elect to remove the track from service. The RWIC contacts the Train Dispatcher, who then “locks out” the section to be removed from service. This way, no railroad traffic can be permitted on the line, allowing workers to enter the right-of-way without further protection from trains. If on-track equipment is to be used, however, an RWIC/Flagman may still be required to protect workers.

### 3.4 RWIC Communications

During the job safety briefing given before starting work, the RWIC will explain the type of OTS being provided and what you are required to do to get clear of the tracks when instructed. The RWIC will identify a safe location or distance to go when he or she instructs workers to clear the track.

- a) Air Horn or Whistle:** The RWIC and/or assisting Flagmen will use a handheld air horn or a loud whistle to give an audible signal to stop working and move to the safe location identified in the job safety briefing. If noise or other distractions may prevent you from hearing the audible warning, an additional warning method may be identified during the job safety briefing, such as a shoulder tap.

**Air Horn**



**Whistle**



When the signal is given, you must promptly stop all work activities and move to the designated safe area outside the Foul Zone and wait for the RWIC to authorize resumption of the work.

- b) White Disc:** In addition to the air horn, the RWIC/Flagman will have a white disc or paddle for giving visual signals to the work group. When held up vertically, this is a signal to stop working and move to the safe location identified by the RWIC in the job safety briefing. When held horizontally towards the track, this is a signal that it is safe to resume work.

### Move to Safe Location



### Resume Work



## 3.5 Right to Question

If you feel the on-track safety being provided is inadequate you may, at any time in and in good faith (which means sincerely, without hostility or disrespect), request a clarification or reevaluation of the protection by the RWIC. If you or anyone else makes such a request, everyone must remain clear of all tracks until the question is resolved. The RWIC, Contractor Supervisor and the SCRRRA Railroad Supervisor must resolve the issue before work can begin.



## 4.0 Working on the SCRRRA's Railroad Right-of-Way

### 4.1 RWIC Instructions:

All instructions given by the RWIC must be followed carefully and promptly. The RWIC may, as conditions warrant, require more stringent safety procedures than are specified in this manual. If you are unclear or have concerns or questions about the instructions of the RWIC, immediately remove yourself from the Foul Zone until the instructions are clearly understood. In case of doubt or dispute, everyone affected must clear the Foul Zone until the Contractor's foreman or supervisor and the RWIC or his/her supervisor resolves any issues or concerns.

### 4.2 Job Safety Briefings

At the beginning of each workday, and anytime during the workday the work plan or job changes, a job safety briefing must be conducted or supervised by the RWIC prior to your entering the Foul Zone. You are required to attend and sign the job safety briefing form. Job safety briefing information includes, but is not limited to:

- 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 or a specific reminder due to a hazardous condition or unusual practice.

**New job safety briefings must be given when:**

- Working conditions or procedures change
- Other workers enter working limits
- Track protection is changed, extended or about to be released
- Change of locations
- Change of limits, clearing limits, and/or Changing projects

**a) 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 SCRRRA, or a completed 8 1/2 X 11 form (format unmodified and as provided by SCRRRA). 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-of-way 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

#### **b) 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.

### **c) 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 SCRRRA. Each 8 ½ X 11 form used must be turned in to their supervisor at the end of the work shift. Each Personal Risk Analysis Booklet must be maintained in tact 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 SCRRRA Manager, compliance officer, or any other person as directed by the Agency.

#### **d) 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 this process.

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.

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

The following protective equipment is required to work on SCRRRA's railroad property. All equipment should be in "good shape". Your employer may require additional PPE based on the type of work to be performed:

- a) Plastic Hardhats** as specified by ANSI, CAL/OSHA and/or Fed/OSHA. No metallic hardhats.
- b) Eye Protection** meeting ANSI Z87.1 standards.
- c) ANZI Approved Reflective Safety Vest**
  - Must be orange in color with retro-reflective striping, SCRRRA approved and meet ANSI Class II or III Reflective Standards.
- d) Safety Boots**
  - Safety Boots must meet the following criteria:
  - Leather or leather-like upper.
  - Sturdy non-leather sole that will resist puncture.
  - Defined heel.
  - Above ankle (minimum 6-inch height as measured from inside boot).
  - Minimum ASTM F2412-05, ASTM F2413-05—75-pound impact and compression class toe.
  - Lace-up.
  - Conform to ANSI Z41.1 requirements.

#### 4.4 Potential Hazards

As previously stated, SCRRA's railroad carries about 60 trains on a typical day. The trains are mostly passenger trains operating at high speeds. Trains approach relatively quietly. You should be on the lookout for trains on any track, at any time, and in either direction. In addition to the obvious hazards of passing trains, there are numerous other hazards on the right-of-way:



- Footing is poor around the track and on the ballast, ties and rails.
- Slopes are often irregular and steep.
- On-track vehicles and machines operate on the track in addition to the trains.
- In addition to trains, SCRRA and others operate vehicles and other equipment along the right of-way.
- Vegetation may hinder visibility and footing or cause an allergic reaction.
- Drivers at public road crossings may be unaware of workers on the right-of-way.
- There are numerous utility lines and crossings, both above-ground and underground on the right-of-way. This includes electrical lines, high pressure gas lines, fiber optic cables, etc.
- Track components may be wet or slick.
- Switches have remotely-controlled moving parts and may move at any time.
- Other work processes, such as track or right of- way maintenance may occur nearby or at the work site.
- In addition to track and bridges, railroad infrastructure includes signal equipment that must not be damaged or impacted. Do not interfere with any signal equipment. Promptly report any accidental contact with signal components.





#### 4.5 Emergency Situations

**Immediately report any accident, injury or emergency to your foreman/supervisor AND the SCRRRA Railroad RWIC!**

The RWIC is able to contact trains, the train dispatcher and emergency responders including fire, police and paramedics.

Immediately report to the RWIC any defects in tracks, bridges, signals, utilities or communication facilities or any unusual condition that may affect job safety and/or the safe operation of the Railroad.

If persons are injured, do everything reasonable to assist or provide for their care.

In case of personal injury, loss of life or damage to property, immediately secure any tools or equipment involved.

## 5.0 SCRRRA's Railroad Right-of-Way Safety

### 5.1 Zero Tolerance Policy

***ANY of the following WILL RESULT IN YOUR REMOVAL FROM THE PROPERTY and could result in your job being shut down:***

- **Right-of-Entry:** Failure to have a valid Right-of-Entry Permit for your project when on railroad property.
- **Foul Zone:** Entering into the Foul Zone without permission or instructions from an SCRRRA Railroad RWIC/Flagman assigned to your job.
- **Safety Training:** Failure to have a current RWP Safety Trained hardhat decal on your hardhat.
- **RWIC Instructions:** Failure to promptly comply with the instructions of the SCRRRA Railroad RWIC or Flagman.
- **PPE:** Failure to wear or use appropriate clothing and PPE as outlined in this Manual.
- **Machinery:** Operating any machine in close proximity to the Right-of-Way or Foul Zone unless the SCRRRA Railroad RWIC/Flagman has indicated that it is safe to do so.
- **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 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 pre-approved by the RWIC.

## 5.2 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.

## 5.3 Right-of-Way Safety Rules:

- Keep clear of the Foul Zone of any track unless an SCRRRA Railroad RWIC has established On-Track Safety and allows the activity.
- Always look both ways before crossing tracks, regardless of the OTS being provided.
- Expect moving trains or equipment on any track, at any time in any direction. Engines may push or pull a train, and there could be an uncontrolled movement of equipment, either of which can approach very quietly.
- Do not interfere with the operation of any railroad equipment, such as wayside signals or grade crossing warning devices.
- Step over the rails when crossing the tracks. Never step on top of a rail. Never walk, stand, or sit on the rails.
- Stay away from track switches. The mechanism may be controlled remotely and can move unexpectedly with enough force to crush rock! Stay clear of any other railroad device with which you are not familiar.
- Never stand between the rails of an adjacent track or between tracks when a train is passing unless instructed by the RWIC.
- Give at least 50 feet of clearance from the end of any piece of standing equipment when crossing tracks occupied by engines, railroad cars, or on-track equipment. Keep an eye on the equipment in case it moves unexpectedly and stay within the operator's sight whenever possible.
- Never cross a track between standing equipment if there is less than 50 feet between the equipment.



- NEVER cross tracks by going underneath, over or through cars, engines or on-track equipment.
- Stop working while trains are passing if you are within 8 feet of the track. Always stand as far back as possible to prevent injury from flying debris or loose rigging.
- Stop all mechanized equipment while a train passes through your work area, unless specifically permitted by the RWIC to keep working. Secure or lower booms, backhoes, excavators, buckets, etc., clear of the tracks.
- Whenever possible, face the direction of the approaching train or on-track equipment;
- Move your vehicle at least 8-feet away from the track when a train approaches. If this is not possible, secure the vehicle, exit and stand a safe distance away from the tracks until the train passes. Never put yourself into a position where you cannot quickly and safely secure and exit your vehicle.

## 6.0 Contractor's Industrial Safety Responsibilities

The SCRRRA Railroad RWIC is responsible to provide On-Track Safety and oversee the general safety of the jobsite. While the RWIC may stop work if he/she observes OSHA workplace safety violations, the RWIC is not responsible to ensure that Contractor personnel comply with applicable OSHA or other regulatory safety requirements. The Contractor's foremen or supervisors are responsible for the safety of their crews and must guard their crews against workplace dangers and injuries. Although FRA regulations govern railroad workplace safety, non-railroad workers on railroad property are still subject to OSHA and FRA safety regulations pertaining to their work.

In addition, contractor personnel are responsible for complying with the following:

### 6.1 Vehicles, Machinery & Heavy Equipment

Always drive vehicles and operate machinery in a careful, cautious manner. Speed limit on the right-of-way is not more than 15 mph and may be lowered if conditions warrant. In addition, the following rules apply to vehicles and equipment operating on railroad property:

- Audible backup warning devices are required on all heavy equipment.
- Do not carry unauthorized persons on equipment. Foremen/supervisors must know that persons qualified to be on equipment are properly positioned before movement is made. Do not transport passengers in truck beds or on heavy equipment.
- Equipment Operators must know the locations of overhead and underground wires, utilities and other known hazards. Operators must have a clear understanding of how to protect utility lines and themselves before operating machinery.
- NEVER move equipment across the tracks except at established road crossings. Tracked or rubber-tired equipment requires the supervision of a Flagman any time railroad tracks are to be crossed.
- NEVER move tracked or rubber-tired equipment across railroad bridges.

## 6.2 Electrical

Electrical wires must be considered live at all times. Do not depend on the insulation of wires for your safety. In addition:

- Keep away from all overhead and underground wires.
- If necessary to run cords across the track, they must be placed underneath the base of rail. Ask the RWIC for instructions on doing this properly.
- Do not place any metal objects across rails.
- Do not excavate until:
  - Dig Alert has been contacted and site identification is complete;
  - SCRRRA's Railroad Communication & Signals Department has identified and marked any buried signal wires and conduits.
  - All required SCRRRA and OSHA shoring and bracing requirements are met.

## 6.3 Small Tools & Work Equipment

Small tools and other equipment on the jobsite must be controlled and secured to prevent any interference with operation of trains:

- Operate all tools and equipment in a safe manner, consistent with instructions and the intended use. Keep all connecting hoses and wires clear of the track.
- Do not leave hand tools on the track or in areas where they may interfere with train operations.
- Store and secure all materials and small tools when the work site is unattended.
- Properly restore all fencing and security equipment before leaving the job site.
- When equipment is left unattended:
  - Engine must be stopped, and ignition locked.
  - Parking or hand brake must be securely set.
  - Keys must be in possession of operator or authorized employee.
  - Wheels must be securely blocked on grades.
  - Equipment must be secured in a highly visible area or protected area.

## 6.4 Housekeeping

CPUC General Orders 118 and 26-D require that lateral and vertical clearances around a railroad track and a safe walkway parallel to both sides of the track be maintained. Material and equipment must not be stored closer than 25 feet from the closest rail. The RWIC may direct Contractor's employees to correct conditions not in compliance before allowing trains to pass or the end of the work day.

## APPENDICES

### Verification Forms & Risk Analysis:

*Appendix A: SCRRRA's Safety Objectives Verification Form*

*Appendix B: Zero Tolerance Safety Rules Verification Form*

*Appendix C: SCRRRA Risk Analysis Form SS 01-24-2020*



**Appendix A:**  
**SCRRA’s Safety Objectives**  
**There is No Greater Importance than Safety.**

This manual governs all non-railroad contractor and personnel activities on or affecting Southern California Regional Rail Authority’s property and/or operating envelope. Non-railroad contractors and personnel are any person, party, company, or individuals defined as *Roadway Workers* in 49 CFR Part 214, whose activities are conducted within, may encroach upon, or impact SCRRA’s railroad right-of-way and/or operating envelope. 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 *Roadway Worker Protection (RWP) Training Manual*.
- Successfully complete the SCRRA RWP Safety 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.

**OBJECTIVES**

<b>Protect Safe Train Operations</b>	<b>Promote a Safe Workplace</b>	<b>Protect SCRRA’s Railroad Property</b>
Work in such a manner as not to interfere with or endanger normal train operations	Recognize potential hazards; Understand and 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 SCRRRA before you will be permitted to start work on SCRRRA's railroad property. I have received the SCRRRA RWP Manual, received instruction in, and understand the requirements of the *SCRRRA RWP Manual*:

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Company

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

*This page must be signed, dated and on file with SCRRRA before you will be permitted to start work on railroad property.*



## Appendix B:

# SCRRRA Railroad Contractor Safety Zero Tolerance Safety Rules

***ANY of the following MAY RESULT IN YOUR REMOVAL FROM THE PROPERTY and could result in your job being shut down:***

- **Right-of-Entry:** Failure to have a valid Right-of-Entry Permit for your project when on SCRRRA railroad property.
- **Foul Zone:** Entering into the Foul Zone without permission or instructions from an SCRRRA Railroad RWIC/Flagman assigned to your job.
- **Safety Training:** Failure to have a current RWP Safety Trained hardhat decal on your hardhat.
- **RWIC Instructions:** Failure to promptly comply with the instructions of the SCRRRA Railroad RWIC or Flagman.
- **PPE:** Failure to wear or use appropriate clothing and PPE as outlined in this Manual.
- **Machinery:** Operating any machine in close proximity to the Right-of-Way or Foul Zone unless the SCRRRA Railroad RWIC/Flagman has indicated that it is safe to do so.
- **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 SCRRRA'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.



I have read and understand the above Zero-Tolerance rules:

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Company

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Project (if applicable)


\_\_\_\_\_  
Hardhat Decal Number (SCRRRA Purposes Only)

\_\_\_\_\_  
Date

*This page must be signed, dated, and on file with SCRRRA before you will be permitted to start work on railroad property.*



**Appendix C:** SCRRRA Risk Analysis Form SS 01-24-2020

		SCRRRA Risk Analysis Form SS 01-24-2020	
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.			
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.			
Date:		Time:	Location:
Describe the nature of work to be performed and characteristics of work location:			
Items that MUST be confirmed prior to fouling tracks			
Who is the designated RWIC?			
Type of On-Track Safety Provided?			
Track Limits and Time Limits of track authority. Does your authority include the control point/switches?			
Identification of any on-track equipment that will foul an adjacent or occupied track			
Track(s) that may be fouled			
How many people are in you working group?			
On-Track Safety provided on adjacent tracks, if yes what type?			
Method of warning when On-Track Safety is provided by a lookout			
Designated place of safety where workers clear for trains			



A follow-up job briefing will be required when:	
Other workers enter your work group	
Will On-Track Safety be changed, extended, or released?	

Use the table below to rate the task you will be performing.  
 Determine the total Severity rating by multiplying the Severity rating by the Probability rating.  
 Severity rating = \_\_\_\_\_ Probability rating = \_\_\_\_\_ Total = \_\_\_\_\_

Value	Score	Description
<b>Catastrophic</b>	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.
<b>Critical</b>	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.
<b>Marginal</b>	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.
<b>Negligible</b>	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.

Value	Score	Description
<b>Frequent</b>	5	Likely to occur often in the life of an item.
<b>Probable</b>	4	Will occur several times in the life of an item.
<b>Occasional</b>	3	Likely to occur sometime in the life of an item.
<b>Remote</b>	2	Unlikely but possible to occur in the life of an item.
<b>Improbable</b>	1	So unlikely, it can be assumed occurrence may not be experienced.

<b>0-3 Low</b>				
<b>4-6 Medium</b>				
<b>7-10 Serious</b>				
<b>10-20 High</b>				
	<b>Severity</b>			
<b>Probability</b>	<b>Catastrophic - 4</b>	<b>Critical - 3</b>	<b>Marginal - 2</b>	<b>Negligible - 1</b>
<b>Frequent - 5</b>	High 20	High 15	High 10	Medium 5
<b>Probable - 4</b>	High 16	High 12	Serious 8	Medium 4
<b>Occasional - 3</b>	High 12	Serious 9	Medium 6	Low 3
<b>Remote - 2</b>	Serious 8	Medium 6	Medium 4	Low 2
<b>Improbable - 1</b>	Medium 4	Low 3	Low 2	Low 1

Who did you discuss this risk analysis with? Name - Agency

Employee Name: \_\_\_\_\_ Employee Signature: \_\_\_\_\_