

Columbia Rail Group

Applicable to: CWW – YCR – MOR – WRL – CCET – KET Railroads

Roadway Worker On-track Safety and Bridge Worker Safety Program

This program has been developed utilizing the General Code of Operating Rules. If different operating rules are utilized by the railroad, Section 1.5 must be revised.

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CONTACT PERSON:

Contact Name: Paul Didelius

Title: General Manager - Owner

Address: 709 N. 10th Ave.

City: Walla Walla

State: WA

Zip: 99362

Telephone: (509) 492-3553 Email: pd@ColumbiaRail.com

Table of Contents

1.0	ROADWAY WORKER PROTECTION ACT	6
1.1	Purpose of the Roadway Protection Act	6
1.1.1	Program Objectives	6
1.1.2	Documentation.....	6
1.1.3	Records.....	7
1.2	Monitoring.....	7
1.3	Training.....	7
1.3.1	All Roadway Workers	7
1.3.2	Rules Qualified Employees	7
1.3.3	Contractors	7
1.3.4	Dispatcher, Control Operators and Others	8
1.4	Job Briefings	8
1.4.1	Job Briefing for Roadway Work Group.....	8
1.4.2	Job Briefing for Lone Workers	9
1.4.3	Communication Requirements	9
1.5	On-Track Safety Procedures	9
1.5.1	Exclusive Track Occupancy.....	11
1.5.1.1	Track and Time Permit in CTC Territory.....	11
1.5.1.2	Track Warrant in Dark Territory or ABS-TWC	11
1.5.1.3	Form B Track Bulletin.....	12
1.5.1.4	Track Removed From Service	12
1.5.2	Foul Time	13
1.5.3	Inaccessible Track	14
1.5.3.1	Railroad Employees or Contractors Working Within Locomotive Servicing and Car Shop Repair Tracks.	16
1.5.4	Individual Train Detection (ITD)	16

1.5.5 Train Approach Warning (TAW).....	17
1.5.6 Train Coordination.....	19
1.5.7 Work Train Operations	19
1.5.8 Adjacent Track Protection on Non-Controlled Track	19
1.5.9 Adjacent Track Protection on Controlled Track	20
1.5.9.1 Occupying a Track with an Adjacent Controlled Track(s).....	21
1.5.9.2 Passing of Trains on Adjacent Controlled Tracks	21
1.6 Audible Warning From Trains	22
1.7 Operating and Working Near Roadway Maintenance Machines (RRM).....	23
1.7.1 On-Track Equipment Operator Training and Qualifications.....	23
1.7.1.1 General Training Requirements	23
1.7.1.2 Machine Specific Training Requirements	23
1.7.1.3 Qualifications.....	23
1.7.1.4 Training and Qualification of Operators of Roadway Maintenance Machines Equipped with a Crane	23
1.7.2 Working With On-Track Equipment.....	24
1.7.2.1 Work Zones Around Machines.....	24
1.7.2.2 Safe Working Distance Between Machines	25
1.7.2.3 Safe Traveling Distance Between Machines	25
1.7.2.4 Stopping On-Track Equipment.....	25
1.7.2.5 Tying Up Equipment	25
1.7.2.6 On-track Roadway Maintenance Machines Engaged in Weed Spraying or Snow Removal on Non-controlled Track.....	26
1.8 Right to Challenge On-Track Safety	27
1.8.1 Responsibilities of the Railroad	27
1.8.2 Responsibilities of the Roadway Worker	27
1.8.3 Good Faith Challenges and Resolution of Those Challenges.....	27
1.9 On-Track Safety Program Documentation.....	28
2.0 BRIDGE WORKER SAFETY	29
2.1 General Requirements	29

2.1.1 General Fall Protection Requirements	29
2.1.2 Fall Protection System Standards.....	30
2.2 Safety Net Systems.....	30
2.3 Working Over or Adjacent to Water	30
2.4 Inspecting Equipment and System	30
2.5 Cleaning and Storing Equipment.....	30
2.6 Scaffolding.....	30
2.7 Bridge Worker Rescue Plan	31
2.8 Personal Protective Equipment (PPE) for Bridge Workers.....	31
3.0 ON-TRACK MAINTENANCE MACHINES AND HI-RAIL VEHICLES.....	32
3.1 General Prestart Checks	32
3.2 Equipment Inspection and Condition.....	32
3.2.1 Repairs.....	32
3.2.2 Towing	33
3.3 On-Track Roadway Maintenance Machine Safety Requirements (General)	33
3.4 On-Track Roadway Maintenance Machines Safety Requirements (Built on or after January 1, 1991)	33
3.5 New On-Track Roadway Maintenance Machine Safety Requirements (Built after September 27, 2004).....	34
3.6 Hi-rail Safety Inspection Checklist	34
3.6.1 Repairs.....	35
STATEMENT OF ON-TRACK SAFETY.....	36
ON-TRACK SAFETY GOOD FAITH CHALLENGE	37
DEFINITIONS	38

1.0 ROADWAY WORKER PROTECTION ACT

1.1 Purpose of the Roadway Protection Act

This program has been adopted as a means to prevent accidents and casualties caused by moving railroad cars, locomotives, or roadway maintenance machines striking roadway workers or roadway maintenance machines.

This program prescribes safety standards related to the movement of roadway maintenance machines where such movements affect the safety of roadway workers. This program does not otherwise affect movements of roadway maintenance machines that are conducted under the authority of the operating rules of the railroad. It is the responsibility of the Roadway Worker in Charge to communicate and coordinate with the train crew and/or switching operation to protect roadway workers and the movement of roadway maintenance machines. Once an equipment movement stops and the Roadway Worker is to perform a task other than the equipment movement (i.e. track inspector to make a minor repair), the Roadway Worker(s) must establish a method of on-track safety.

1.1.1 Program Objectives

- Protect roadway workers from being struck by moving locomotives, cars and roadway maintenance machines.
- Prevent accidents and casualties caused by collisions between roadway maintenance machines and moving locomotives, cars and/or other maintenance machines.
- Ensure roadway workers have a safe working environment.
- Prevent accidents and casualties caused by operation of on-track roadway maintenance machines and hi-rail vehicles.

1.1.2 Documentation

These rules are to be maintained in the On-Track Safety Manual and must be readily available to all Roadway Workers. Each roadway worker responsible for the on-track safety of others Roadway Worker in Charge(RWIC) and Lone Worker must have a copy of this manual accessible while on duty. A supervisor or dispatcher, which can be contacted with immediate access to the On-Track Safety Manual, meets the requirement of “readily available” for a Lone Worker. The manual should contain this document, the applicable operating rules (including bulletins, general notices, etc.), the timetable for the railroad and the current Engineering Safety Rules & Procedures. Additionally, any changes to these documents will be issued by

General Order, Special Instruction or Track Bulletin and must be retained in this manual.

1.1.3 Records

Training records will be maintained by the railroad for each Roadway Worker. Each record shall include the name of the employee, the type of qualification made, and the most recent date of qualification. Records can either be written or electronic. These records shall be kept available for inspection and photocopying by the Federal Railroad Administrator during regular business hours.

1.2 Monitoring

A person qualified on Chapter One of this program and the railroads operating rules will conduct periodic monitoring, with a minimum of one observation annually per roadway worker, to ensure compliance. These observations will place emphasis on job briefings, protection provided (e.g., exclusive track occupancy, foul time, train coordination, inaccessible track, watchman/lookout, etc.) and unnecessary fouling.

1.3 Training

1.3.1 All Roadway Workers

On-Track Safety training must be conducted annually for all Roadway Workers.

1.3.2 Rules Qualified Employees

Employees whose duties include the inspection, construction, maintenance or repair of track, bridges, roadway, signals, and machinery or provides protection for other employees or themselves must be qualified on these rules.

In addition to the training and qualification that all roadway workers receive, every roadway worker who is required to be Rules Qualified must also be trained and qualified annually as a **RWIC**. Employees required to provide protection for themselves or others must be Rules Qualified.

1.3.3 Contractors

Contractors to a railroad who perform work foul of any track must be trained in the On-Track Safety procedures. This training can occur at the work site in the form of an extended job briefing containing applicable railroad on-track safety rules and all elements of 214.345. Contractors to a railroad must not be allowed to foul a track unless:

- They have been properly trained in the On-Track Safety procedures, and
- A railroad employee who is trained and qualified as a RWIC and lookout and flagman (if required) is present at the work site.

1.3.4 Dispatcher, Control Operators and Others

- Trainmen serving as RWICs will be trained annually.
- Dispatchers and Control Operators whose duties are related to on-track safety will be trained triennially

1.4 Job Briefings

A Job Briefing must be conducted prior to any roadway worker fouling any track. A Job Briefing is complete only when each roadway worker acknowledges understanding of the On-Track Safety procedures and instructions.

1.4.1 Job Briefing for Roadway Work Group

The RWIC must conduct a Job Briefing that includes all information related to On-Track Safety. This Job Briefing is given to every roadway worker who will foul the track. In addition to other safety issues, the *minimum* On-Track Safety information must include:

- Designated RWIC and information on the accessibility of the RWIC with alternative procedures in the event the RWIC is no longer accessible to the members of the roadway work group.

Note: When authorities overlap, those roadway workers in charge of the respective authorities must determine who will be the sole RWIC of the overlapping authorities.

- Type of On-Track Safety provided
- Track limits and time limits of track authority
- Track(s) that may be fouled
- Nature and characteristics of the work to be performed, to determine if adjacent track protection is necessary
- Information about any adjacent tracks, on-track safety on adjacent tracks if required or deemed necessary by the RWIC and identification of any roadway maintenance machines that will foul such tracks.
- Procedure to arrange for On-Track Safety on other tracks, if necessary
- Method of warning when On-Track Safety is provided by a lookout
- Designated place of safety where workers clear for trains
- Designated work zones around machines
- Safe working/traveling distances between machines

The RWIC must give a follow-up Job Briefing whenever:

- Working conditions or procedures change

- Other workers enter the working limits
- On-Track Safety is changed or extended, or
- The main track has been cleared and On-Track Safety or track authority is to be released

1.4.2 Job Briefing for Lone Workers

A Lone Worker must participate in an On-Track Safety Job Briefing with his supervisor or other designated employee at the beginning of each tour of duty. This briefing must include:

- Planned itinerary
and
- On-Track Safety procedure to be used.
- Completion of a Statement of On-Track Safety if Individual Train Detection per rule 1.5.4 is to be used.

Exception: When communication has failed, On-Track Safety Job Briefing must be conducted as soon as possible after communication is restored.

1.4.3 Communication Requirements

Each employee designated by the railroad to provide on-track safety for a roadway worker group or groups, must be equipped with a wireless communication devise capable of reaching the control center of the railroad. The employee must, where practicable, maintain immediate access to the communication devise. When immediate access is not practicable, the employee in charge or lone worker must be equipped with a radio capable of monitoring transmissions from train movements in the vicinity.

Note: This section does not apply to railroads with less than 400,000 annual employee hours, and which operate trains at speeds of 25 mph or less.

1.5 On-Track Safety Procedures

On-Track Safety can be provided for roadway workers by the following methods:

- ✓ ~~Exclusive Track Occupancy~~
 - € ~~Track and Time~~
 - € ~~Track Warrant~~
 - € ~~Form B Bulletin~~
 - € ~~Track Removed from Service~~
 - € ~~Foul Time~~
- ✓ Inaccessible Track
 - ✓ Block Register Territory when no more than one occupant is signed in

- ✓ Individual Train Detection (ITD)
- ✓ Train Approach Warning (TAW)

~~Train Coordination~~

- ✓ See system Directives (Special Instructions) for new GCOR rule 6.3.2:

Rule 6.3.2 – Engine used to prevent access as part of inaccessible track (New Rule) – When conditions require roadway workers to establish working limits, they may request that engine(s) be used to prevent access as part of those working limits. When used as such, all the following requirements must be met:

- The EIC will first establish a clear understanding with the engineer, who will notify other members of the train crew.
- If desired working limits are within a BRT block, the EIC must first be registered as a joint occupant of that block.
- The engine must be visible to the EIC establishing the working limits.
- The engine must remain stopped. Further movements of the engine shall be made only as permitted by the EIC controlling the working limits.
- The crew of the engine shall not leave the locomotive unattended, release their BRT block authority or go off duty unless a clear understanding is reached with the EIC who will first establish alternate protection of the working limits.
- The air brakes must be cut in, charged and operative to all cars coupled to the engine.
- No other operable engines or other on-track equipment, except those present and under the direction of the EIC are allowed within the working limits established by inaccessible track.
- These restrictions no longer apply when the EIC reports engine is no longer restricting access to established working limits.

The employee in charge of the roadway work group, or the Lone Worker, determines the type of On-Track Safety to be used. The type of On-Track Safety must comply with these provisions, as well as:

- Railroad Operating Rules
- Timetable
- MOW Rules
- General Orders
- Special Instructions

If the track is to be fouled with equipment or the track made unsafe for the passage of trains, working limits must be established. If work is in tunnels or on bridges that are longer than can be cleared within the time provided by the available sight distance, working limits must be established. Tunnel niches or bridge refuge bays shall not be used as designated places of safety.

Roadway workers may cross tracks without establishing a method of on-track safety provided the following requirements are followed:

- When crossing tracks, take the shortest & safest route after looking both ways. If more than one track is to be crossed, do not start crossing until the entire way is seen to be clear. Additionally, look in both directions before crossing each track.
- Never cross tracks closer than 50 feet from standing equipment. The only exception to this rule is when equipment is inside the confines of a shop and under blue flag protection.
- Cross in front of moving train or equipment only if it is a sufficient distance away to permit reaching the opposite side 15 seconds before arrival of train or on-track equipment.
- Are not carrying tools or materials that restrict motion, impair sight or hearing, or may otherwise prevent them from detecting an on-track movement and promptly moving off the track.

1.5.1 Exclusive Track Occupancy

~~Exclusive Track Occupancy establishes working limits on controlled tracks. Examples of Controlled Track include:~~

- ~~• Centralized Traffic Control (CTC)~~
- ~~• Track Warrant Control (TWC)~~
- ~~• Automatic Block System Track Warrant Control (ABS TWC)~~
- ~~• Manual Interlocking~~
- ~~• Automatic Interlocking~~

~~Exclusive Track Occupancy can be established by the following four methods:~~

1.5.1.1 Track and Time Permit in CTC Territory

~~To establish working limits with a Track and Time Permit in CTC Territory:~~

- ~~1. If you receive a Track and Time Permit that is joint with either trains or M/W, you must display red flags at each end of the working limits. Working limits must be established at or between identifiable points (e.g., mile post, station signs, etc.). When track and time authority is issued "joint with", a job briefing must be conducted with employees previously granted or train listed as "joint with" before entering the limits. The job briefing must include the name of the RWIC, exact location of the working limits and moves to be made.~~
- ~~2. If you receive a Track and Time Permit that is not joint with either trains or M/W, you are not required to provide additional protection of roadway workers.~~

1.5.1.2 Track Warrant in Dark Territory or ABS TWC

If you receive a Track Warrant that is a “joint authority” you must establish communication with those employees previously granted a track warrant before entering the joint limits. The job briefing must include the name of the RWIC, exact location of working limits and moves to be made.

All trains authorized are notified of the men or equipment by their track warrant. Trains must not enter the limits of the track warrant held by men or equipment unless verbally authorized by the RWIC. Also, a track warrant must inform the RWIC about the trains using the track warrant. When so authorized, trains may move only at Restricted Speed. When a “joint authority” track warrant is issued to either trains, other maintenance of way equipment or employees, a job briefing must be held with all employees to ensure understanding of the rule requirements.

1.5.1.3 Form B Track Bulletin

Establish working limits with a Form B Track Bulletin or equivalent on main track(s) or sidings by utilizing fixed locations (e.g., mile post, station sign, etc.).

— **Note: Authority limits must display yellow/red and red flags. When working limits must be established within the authority limits because of joint occupancy, the working limits must be identified by fixed locations (e.g., mile post, station sign, etc.).**

1.5.1.4 Track Removed From Service

To establish working limits by removing a track from service **(controlled track only)**:

1. Ask the control operator/train dispatcher to take the particular track out of service. The control operator/train dispatcher then issues a track bulletin that removes the track from service.
2. Copy and repeat the track bulletin information back to the control operator/train dispatcher.
3. Place red flags to protect the working limits, **except in Emergency Conditions.**
4. When protection is no longer required, remove red flags if applicable and release the track back to the control operator/train dispatcher.

Use this form of protection when necessary to work in the same limits with a train tied up on the main track.

NOTE: For All Exclusive Track Occupancy

Movements of trains and roadway maintenance machines within working limits established through Exclusive Track Occupancy shall be made only under the direction of the RWIC. All movements shall be at restricted speed unless a higher speed has

~~been specifically authorized by the RWIC.~~

~~In Joint Occupancy, the RWIC holding the authority must read the authority to the receiving qualified RWIC. The receiving RWIC must copy the authority and repeat back. If correct, the holding RWIC will state "OK" with a time and their initials.~~

~~Authorities issued for following a train (After Arrivals) must not be issued to protect men or equipment within the same or overlapping limits unless all trains are authorized to proceed in one direction only and the track authority specifies that men or equipment do not occupy limits ahead of these trains. The RWIC must know that all trains listed on the authority are by the location where the track is to be occupied or fouled. This information can be obtained by observation of the passing trains, radio communication with a crew member of the trains or from the train dispatcher. The RWIC must record the time of passage of the train and the engine number on the track authority. If the passage confirmation is made via radio communication with the train crew or train dispatcher, the time of that communication and the engine numbers must be recorded on the authority. Joint authorities issued for following a train (After Arrivals) must have the all RWICs confirm the passage of the train with time and engine number.~~

1.5.2 Foul Time

~~Use Foul Time to establish working limits on controlled track in:~~

- ~~• CTC territory at control points~~
- ~~• Manual interlockings~~

~~To establish working limits using Foul Time:~~

- ~~• Obtain Foul Time from the control operator/train dispatcher.~~
- ~~• Copy and repeat the Foul Time back to the control operator/train dispatcher.~~
- ~~• Verbally verify with the control operator/train dispatcher that signals are set to display stop.~~
- ~~• The RWIC may not permit the movement of trains or other on track equipment into working limits protected by foul time.~~
- ~~• When protection is no longer required, report clear of the limits to the control operator/train dispatcher. The control operator/train dispatcher then releases the Foul Time.~~

1.5.3 Inaccessible Track

Inaccessible Track is a method of establishing working limits on non-controlled tracks by making the track physically inaccessible to trains, engines, rolling equipment and on-track equipment. Equipment movements in non-controlled track such as but not limited to moving equipment from a clearing location to the work site or routine inspections may be made without establishing working limits. Such moves will be made at restricted speed.

Exception: Working limits must be established for roadway maintenance machine movements on non-controlled track equipped with automatic block signal systems over which trains are permitted to exceed restricted speed.

Trains and roadway maintenance machines within working limits established by means of inaccessible track shall move only under the direction of the RWIC and must move prepared to stop within one half the range of vision, short of men and equipment. No operable locomotives or other items of on-track equipment except those under the direction of the RWIC may be located within these limits.

Non-controlled track consists of:

- Yard tracks
- Industrial leads
- Non-controlled sidings
- Tracks within Yard Limits/Restricted Limits

The RWIC or Lone Worker establishes working limits using Inaccessible Track with one of the following methods:

- A flagman with instructions and the capability to hold all trains and equipment from entering the working limits. A flagman generally does not have the capability to restrict the movement of free-rolling equipment.
- Line a switch or permanent derail to prevent access to the working limits. Tag the switch or derail and lock, spike, and/or clamp securely. A specialized lock designated by railroad operating rules must be utilized.
- Place a portable derail(s) with a red flag(s), which must be secured by a lock or a metal wedge that requires railroad tools to be applied and removed. Derails must be tagged. Red flags must be placed 150 feet in advance, if possible from the working limits to prevent movement into the limits.
- Establish discontinuity in the rail to prevent movement into the working limits.
- Working limits on controlled track that connects directly with the inaccessible track, established by the RWIC of the working limits on the inaccessible track.
- ~~A remotely controlled switch aligned to prevent access to the working limits and~~

~~secured by the control operator of such remotely controlled switch by application of a blocking device to the control of the switch, when:~~

- ~~○ The control operator has secured the remotely controlled switch by applying a locking or blocking device to the control of the switch, and~~
- ~~○ The control operator has notified the roadway worker who has established the working limits that the requested protection has been provided, and~~
- ~~○ The control operator is not permitted to remove the locking or blocking device from the control of the switch until receiving permission to do so from the roadway worker who established the working limits.~~
- A locomotive with or without cars placed to prevent access to the working limits at one or more points of entry to the working limits, providing the following conditions are met:
 - The RWIC who is responsible for establishing working limits communicates with a member of the crew assigned to the locomotive and determines that:
 - The locomotive is visible to the RWIC that is establishing the working limits; and
 - The locomotive is stopped.
 - Further movements of the locomotive shall be made only as permitted by the RWIC controlling the working limits.
 - The crew of the locomotive shall not leave the locomotive unattended or go off duty unless communication occurs with the RWIC and an alternate means of on-track safety protection has been established by the RWIC, and
 - Cars coupled to the locomotive on the same end and on the same track as the roadway workers shall be connected to the train line air brake system and such system shall be charged with compressed air to initiate an emergency brake application in case of unintended uncoupling. Cars coupled to the locomotive on the same track on the opposite end of the roadway workers shall have sufficient braking capability to control their movement.
 - Trains and roadway maintenance machines within the working limits established by means of inaccessible track shall move only under the direction of the RWIC of the working limits, and shall move at restricted speed.
 - No operable locomotives or other items of on-track equipment, except those present or moving under the direction of the RWIC of the working limits, shall be located within the working limits established by means of inaccessible track.
- Block Register territory, designated in the timetable, which prevents trains and other on-track equipment from occupying the track when the territory is under the control of a Lone Worker or RWIC. The RWIC or Lone Worker has the absolute right to render block register territory inaccessible using any of the above mentioned Inaccessible Track provisions. or
- ~~• Track Bulletin Form B in yard limits. Train or engine or other on-track equipment movements on a main track within yard limits or restricted limits are prohibited until the train or engine or on-track equipment receives notification of any working limits in~~

~~effect and the train or engine or on-track equipment are prohibited from entering working limits until permission is received by the RWIC. The working limits must be delineated with stop signs (flags), and where speeds are in excess of restricted speed and physical characteristics permit, also with advance signs (flags).~~

1.5.3.1 Railroad Employees or Contractors Working Within Locomotive Servicing and Car Shop Repair Tracks.

Workers (as defined by § 218.5) within the limits of locomotive servicing and car shop repair track areas (as both defined by § 218.5) may utilize procedures established by a railroad in accordance with subpart B of part 218 (Blue Signal Protection) to perform duties incidental to inspecting, testing, servicing, or repairing rolling equipment when those incidental duties involve fouling a track that is protected by Blue Signal Protection (e.g., performing building repairs, changing light bulbs, etc.). Similarly, employees of a contractor to a railroad if such incidental duties are performed under the supervision of a railroad employee qualified (as defined by § 217.4) on the railroad's rules and procedures implementing the Blue Signal Protection requirements may also work under Blue Signal protection when:

- A job briefing is conducted with the person who placed the blue flags.
- No movement of equipment will be conducted within the blue flag area until all parties are briefed and all roadway works are clear of the track.
- Person who placed the blue flags does not remove, unless the affected persons are notified of the removal and have cleared the tracks.

Note: Employees or Contractors performing work requiring a Part 213.7 qualified employee or employees trained and qualified under RWP must provide protection per 1.5

1.5.4 Individual Train Detection (ITD)

Individual Train Detection is a form of On-Track Safety that can be used **only** by Lone Workers. A Lone Worker has the right to use On-Track Safety procedures other than ITD if the Lone Worker feels the situation warrants. ITD can be used to provide On-Track Safety only if all the following conditions are met:

- The Lone Worker is trained, qualified, and designated to use ITD.
- Only routine inspection or minor repair is being performed. The Lone Worker may not occupy any position or engage in any activity that would interfere with the ability to detect the approach of train or equipment in either direction.

- The Lone Worker is not inside the limits of a:
 - Manual interlocking
 - Control point
 - Remotely controlled hump yard facility.
- The Lone Worker can visually detect the approach of trains or equipment moving at maximum authorized speed and can move to a place of safety at least 15 seconds before its arrival.

NOTE: The place of safety must not be on a track unless working limits have been established on that track.

- No power-operated tools or machines are in use within hearing range. The Lone Worker's ability to hear and see approaching trains and equipment is not impaired by:
 - Background noise
 - Lights
 - Inclement weather
 - Passing trains
 - Other physical conditions
- The Lone Worker has completed a written Statement of On-Track Safety. When using ITD, the Lone Worker must produce the completed Statement of On-Track Safety upon request.
- Individual train detection shall not be used to provide on-track safety for a Lone Worker using a roadway maintenance machine, equipment, or material that cannot be readily removed by hand.

1.5.5 Train Approach Warning (TAW)

Members of a roadway work group may foul a track without establishing working limits by using Train Approach Warning to perform routine inspections or other minor corrections (work that does not interfere with the safe passage of trains at maximum authorized speed); or to provide warning for adjacent tracks equipped with adequate sight distance to permit roadway workers receiving a warning to be in their predetermined place of safety 15 seconds before the arrival of train or on-track equipment. The RWIC will establish On-Track Safety by designating one or more Lookouts to provide warning of all approaching movements in both directions. Lookouts will provide the warning using:

- A whistle;
and/or
- An air horn
- Visual aid (e.g., paddle, flag, etc.)

Train Approach Warning may be used to provide On-Track Safety only when all the following conditions are met:

- Each Lookout must be a qualified employee and equipped to provide Train Approach Warning.
- A Lookout can give a Train Approach Warning in time to allow each roadway worker to move to a previously arranged place of safety at least 15 seconds before the arrival of a train, engine or other equipment moving at the maximum authorized speed on the track at the work site.
- Each roadway worker is in a position to receive a Train Approach Warning
- RMMs, equipment or material can be readily removed by hand
- The predetermined place of safety for roadway workers utilizing Train Approach Warning cannot be another track unless working limits are established on that track and permission to occupy the established working limits is withheld.

Lookouts must devote their entire attention to detecting approaching trains and engines and warning the roadway workers. Lookouts must:

- Not be assigned other duties while functioning as a lookout.
- Remain at their duties until the RWIC either determines that protection is no longer necessary or sends another Lookout to relieve them.

Note: The RWIC may provide Train Approach Warning by acting as the Lookout as long as the RWIC is not performing other duties.

The Lookout's method of communicating a Train Approach Warning must be distinctive and clearly understood, regardless of noise, work distraction and the direction that the warned worker is looking.

The method that a Lookout will use to warn roadway workers will consist of:

- Blowing a whistle and/or sounding an air horn. (See below note)
and
- Visual aid (e.g., paddle, flag, etc.)

Note: Touching a roadway worker can be utilized to replace the above aids when only two roadway workers are present. The two roadway workers must always remain within arm's length of each other when fouling the track.

The following chart identifies the minimum distance required for the maximum authorized speed to provide employees the minimum 15 seconds necessary to clear the track prior to the arrival of a train or engine. Time requirements to distribute or receive warning,

removing tool/materials, etc. must be added to the 15 seconds.

Speed (MPH)	Distance (Ft)	Speed (Ft)	Distance (Ft)
5	110	35	770
10	220	40	880
15	330	45	990
20	440	50	1,100
25	550	55	1,210
30	660	60	1,320

1.5.6 Train Coordination

~~Employees may use a train's authority to establish working limits for track maintenance on controlled track. To establish the working limits, the train must be in view and stopped. The RWIC of working limits will communicate with a member of the train crew and determine that:~~

- ~~• Movements will be made only as permitted by the RWIC until the working limits have been released to the train crew by the RWIC.~~
- ~~• The train will not release its authority within the limits until those working limits have been released by the RWIC.~~

1.5.7 Work Train Operations

To provide On-Track Safety for roadway workers and roadway maintenance machines working with a work train, the RWIC of working limits must authorize all movements of the work train and roadway maintenance machines within working limits. No worker may foul a track within working limits without being authorized by the RWIC.

1.5.8 Adjacent Track Protection on Non-Controlled Track

Inaccessible Track per rule 1.5.3 can be used to establish working limits when it is necessary to foul adjacent non-controlled tracks.

If working limits are not established on an adjacent non-controlled track, Train Approach Warning per rule 1.5.5 may be used to protect roadway workers fouling that track if adequate sight distance based on maximum authorized speed is present.

1.5.9 Adjacent Track Protection on Controlled Track

~~Note: In the interest of simplicity, these Adjacent Track rules are more restrictive than the regulation found at 49 CFR 214.336.~~

~~Protection for roadway work groups working with roadway maintenance machines will be established for adjacent controlled tracks as outlined in this rule when any roadway worker who is a member of a roadway work group is on the ground and engaged in a common task with the on track, self-propelled equipment or coupled equipment on an occupied track.~~

~~Note: The RWIC may establish protection on any adjacent track (s), even when not specifically required by this rule, at any time as deemed necessary by the RWIC to ensure the safety of the roadway work group~~

Excepted groups

This rule does not apply when there is not at least one adjacent controlled track adjacent to the Occupied Track, or to Lone Workers, work groups without roadway maintenance machines present, Hi-Rail inspection vehicles not coupled to one or more railroad cars when the work is being performed and consist of inspection or minor corrections, or automated inspection vehicles when their duties will not require fouling the adjacent track.

Maintenance or repairs may be performed alongside or within the perimeter of a roadway maintenance machine or coupled equipment on the occupied track provided:

One or more roadway workers performing maintenance or repairs alongside a roadway maintenance machine or coupled equipment, provided that such machine or equipment would effectively prevent the worker from fouling the adjacent controlled track on the other side of such equipment, and that such maintenance or repairs are performed while positioned on a side of the occupied track where no adjacent track is present or if an adjacent track is present, working limits are established on that adjacent track and the RWIC will withhold authority or permission for trains or on-track equipment movement through the limits.

or

One or more roadway workers on or under a roadway maintenance machine or coupled equipment performing maintenance or repairs within the perimeter of the machine or equipment, provided that no part of their person breaks the plane of the rail of the occupied track except when toward one of the sides of the occupied track as described above.

Note: A boom or other equipment extending beyond the body of a roadway maintenance machine or coupled equipment toward an adjacent controlled track is not considered to

be within the perimeter of the machine or coupled equipment.

Excepted roadway work group operating within the limits of another roadway work group

When an excepted roadway work group is authorized or permitted to operate on the same occupied track and within the working limits of a separate roadway work group performing work that is subject to this rule, or the non-excepted group is authorized or permitted to operate on the same occupied track and within the same working limits of an excepted group, the groups must conduct an on track safety job briefing to determine if adjacent controlled track protection is necessary for the excepted group.

For the excepted groups, the RWIC must determine if the roadway work group is in such proximity where the ability to hear or see approaching trains and other on track equipment is impaired by:

- Background noise
- Lights
- Sight obstructions or any other physical conditions caused by the equipment. If these conditions exist, this exception does not apply and adjacent controlled track protection must be established for both groups.

1.5.9.1 Occupying a Track with an Adjacent Controlled Track(s).

~~Exclusive track occupancy per rule 1.5.1 or train approach warning per rule 1.5.5 must be utilized to provide protection for roadway workers on an adjacent controlled track(s) (adjacent controlled track(s) spaced 19ft or less center to center).~~

~~NOTE: Train approach warning must not be utilized to provide protection on an adjacent controlled track if any component of the on track equipment such as a boom, arm or crane will foul the adjacent protected track. If any component of the equipment will foul the adjacent protected track, the RWIC must establish exclusive track occupancy per rule 1.5.1 for protection and not permit movements on the adjacent track. RWIC must not permit movements on the adjacent track until all men and equipment are clear.~~

1.5.9.2 Passing of Trains on Adjacent Controlled Tracks

~~When the RWIC permits the passing of trains or other on track equipment on the controlled adjacent track(s), roadway workers must stop work and move to a pre-determined place of safety upon receiving a watchman/lookout warning, or notification that the RWIC intends to permit one or more trains or on track equipment movements within the working limits of the adjacent controlled track. The pre-determined place of~~

~~safety must not be fouling any track unless working limits have been established for that track and no movements on that track within those limits are permitted by the RWIC. Machine operators must stop the operation of their equipment, and when practicable, operators must remove themselves to a pre-determined place of safety. Prior to authorizing movements through working limits on an adjacent track, the RWIC must notify roadway workers and receive verification that personnel and equipment are clear of the adjacent track(s).~~

~~Work may be resumed only after the trailing end of all Trains or other On Track Equipment moving on the adjacent controlled track(s) has passed and remains ahead of the roadway work group and the RWIC gives notification to the roadway work group that protection is again established on the adjacent controlled track.~~

~~If a train or other on track equipment stops before it's trailing end has passed all of the affected roadway workers in the roadway work group on the adjacent controlled track, work may resume only if on track safety using Train Approach warning has been established on the adjacent controlled track, or after the RWIC has communicated with a member of the train crew or the on track equipment operator, and established that further movements of the train or on track equipment shall be made only as permitted by the RWIC. The RWIC must inform the roadway work group on track safety has been established through an on track safety job briefing. Then, work may resume.~~

1.6 Audible Warning From Trains

Trains and engine approaching roadway workers are required by the GCOR rules to provide the following audible warnings:

5.8.1 Ringing Engine Bell

Ring the engine bell under any of the following conditions:

- *When approaching men or equipment on or near the track.*

5.8.2 Sounding Whistle

The whistle may be used at anytime as a warning regardless of any whistle prohibitions.

When other employees are working in the immediate area, sound the required whistle signal before moving.

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

- (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.

1.7 Operating and Working Near Roadway Maintenance Machines (RRM)

1.7.1 On-Track Equipment Operator Training and Qualifications

1.7.1.1 General Training Requirements

No employee may operate a RRM without first:

- Having been trained in accordance with the Rules;
- Having been informed of the safety procedures applicable to persons working near the machine; and
- Acknowledging full understanding of those safety procedures.

1.7.1.2 Machine Specific Training Requirements

The operator's manual, which includes instructions for safe operation, shall be provided and maintained with each machine large enough to carry the document. A machine operator must have a clear understanding of the information contained in the associated manual prior to operating a RRM.

1.7.1.3 Qualifications

An employee will not be considered qualified to operate a unit of on-track equipment without having been trained to be competent in the operation of that machine. This training may be accomplished on-the-job through peer instruction or through a combination of classroom training and peer training.

Competency must be established prior to operating a RRM. New or relief machine operators who have not, within the past year, operated the type of equipment to which they will be assigned must be deemed competent by proper authority. When approved to begin operation, such operators will be observed by the designated manager for a period which is extensive enough to determine the operator's competency level.

1.7.1.4 Training and Qualification of Operators of Roadway Maintenance Machines Equipped with a Crane

In addition to rules 1.7.1 through 1.7.3, above, each operator of a Roadway Maintenance Machine Equipped with a Crane must receive initial and periodic qualification that

includes:

- A practical test to determine that the operator has the skills to operate each machine they are authorized to operate, and
- A written test to determine that the operator has the knowledge to safely operate each machine they are authorized to operate. This must include either:
 - Knowledge of manufacturer's safety instructions, or
 - Knowledge of safety instructions developed to replace the manufacturer's instructions when the machine has been adapted for a specific railroad use.

1.7.2 Working With On-Track Equipment

When Working with On-Track Equipment, spacing guidelines must be adhered to in order to prevent contact between machines and to prevent machines from contacting workers. When work or travel conditions dictate that the machine spacing must be less than the guidelines require, the machine operators and the RWIC must have a thorough understanding of the specific task, the conditions under which the task is to be done and how the task is to proceed. In addition, the operator of a machine approaching workers who are foul of the track must communicate with the workers before getting closer than 15 feet to them.

Before a reverse move of more than 15 feet is made, the operator must ascertain that a backup alarm is activated and/or the appropriate horn or signal is provided. In addition, the operator must observe that the track is clear of men and machines before the reverse movement is made.

1.7.2.1 Work Zones Around Machines

When roadway workers' tasks require that they occupy a machine's work zone as defined below, they must not enter a machine's Work Zone without first communicating with the operator to establish safe work procedures. Unless a different understanding is established through a job briefing, this Work Zone extends from a point 15 feet around the entire machine.

If a roadway worker needs to enter an operator's Work Zone, the following procedures must be accomplished:

1. The operator and the employee(s) must establish eye contact,
2. The RMM operator must receive verbal communication from the employee(s) stating that the employee(s) wish to enter the Work Zone,
3. The RMM operator must notify the employee(s) when it is safe to enter the Work Zone and employee(s) must not enter until it is safe to do so,

4. The RMM operator must stop all movement of the equipment and place the RMM in neutral, and
5. RMM operator must remove and raise hands from controls of the RMM.

1.7.2.2 Safe Working Distance Between Machines

Unless a different understanding is established through a job briefing, the minimum distance between machines while working is 50 feet.

1.7.2.3 Safe Traveling Distance Between Machines

On-track equipment must maintain a minimum distance of 300 feet between each other, except when traveling through a crossing. In addition to the 300 feet, on-track equipment must operate at a speed which will allow stopping within half the range of vision. **Adverse weather and/or rail conditions may require greater separation distances.**

1.7.2.4 Stopping On-Track Equipment

When necessary to slow or stop on-track equipment during travel, the operator must signal following equipment operators either by radio or hand signals. If a radio is used, the machine operator transmitting must be assured that the following equipment operators have received and understood the message transmitted. If hand signals are used, the signal must be continuous until it is verified that the following equipment operators have observed and understood the movement is to be slowed or stopped.

If machines are to be “bunched” when stopped, all employees must remain clear of the track until the entire movement has stopped unless otherwise instructed by the RWIC. After stopping, the lead machine operator in the movement will dismount that machine and assume a position that is visible to the following machine operator as well as to anyone who could step into the path of the next approaching machine. The dismounted operator will spot the following machine using hand signals. This procedure will be used by each successive operator in the movement to spot the following machine.

Note: All equipment must be properly secured when left unattended.

1.7.2.5 Tying Up Equipment

Follow these procedures to ensure safety:

1. Secure all brakes, booms, locks, and hooks.
2. Dismount the machine on the field side of the track, away from live traffic.

EXCEPTION: If the track is between live tracks, dismount on the side designated in the job briefing.

3. Stand beside machine and direct the next roadway machine to a stop.
4. Do not go between machines until all machines have come to a stop or the RWIC has given permission.

1.7.2.6 On-track Roadway Maintenance Machines Engaged in Weed Spraying or Snow Removal on Non-controlled Track

On-track RMMs engaged in weed spraying and snow removal on non-controlled track without inaccessible track protection may operate if prepared to stop in half the range of vision not exceeding 25 mph under the following conditions:

- The RWIC must conduct a job briefing with all groups and crafts that may conduct movements in the work area including but not limited to train dispatchers, yardmasters, train crews, other roadway workers.
- All on-track movements shall operate at Restricted Speed with RMMs and hi-rails further restricted to 25 mph.
- A means of communication between the on-track equipment and other on-track movements must be provided.
- Kicking of cars is prohibited in the area.
- Roadway workers engaged in such snow removal or weed spraying operations shall retain the absolute right to use the provisions of inaccessible track.
- Roadway workers assigned to work with this equipment may line switches (or derails operated via a switch stand) for the machine's movement but shall not engage in any roadway work activity unless protected by another form of on-track safety (operating derails without a stand, i.e. "flop" type derails, requires a method of on-track safety) .
- Each roadway maintenance machine engaged in snow removal or weed spraying shall be equipped with and utilize:
 - An operative 360-degree intermittent warning light or beacon
 - Work lights, if the machine is operated during the period between one-half hour after sunset and one-half hour before sunrise or in dark areas such as tunnels, unless equivalent lighting is otherwise provided.
 - An illumination device, such as a headlight, capable of illuminating obstructions on the track ahead in the direction of travel for a distance of 300 feet under normal weather conditions.
 - A brake light activated by the application of the machine braking system and designed to be visible for a distance of 300 feet under normal weather conditions.
 - A rear viewing device, such as a rearview mirror.
 - If any of these devices are not functioning on the equipment, inaccessible track must be established (seven day grace period does not apply).

1.8 Right to Challenge On-Track Safety

The railroad and each roadway worker share joint responsibility for ensuring that On-Track Safety is provided.

1.8.1 Responsibilities of the Railroad

The Railroad must:

- Provide proper training of every roadway worker as outlined in 1.3.
- Guarantee each employee the absolute right to challenge, in good faith, whether the On-Track Safety procedures to be applied at the job site comply with the Railroad Rules. Each employee has the right to remain clear of the track until the challenge is resolved.
- Follow the procedures outlined in 1.8.3 to resolve challenges promptly and equitably.

1.8.2 Responsibilities of the Roadway Worker

Each roadway worker has the following responsibilities:

- Follow the Railroad's On-Track Safety procedures.
- Avoid fouling a track except when necessary to perform your duties.
- Before fouling a track, determine that On-Track Safety is being provided.

Note: A roadway worker or roadway machine is considered to be fouling a track when within a minimum of 4 feet of the nearest rail. The foul area must include the possible extensions of any part of the machine while working.

- Refuse any directive to violate an On-Track Safety or machine/hi-rail rule and promptly notify a supervisor when the safety provisions to be applied at the job site do not comply with the railroad rules.

1.8.3 Good Faith Challenges and Resolution of Those Challenges

A roadway worker may make a Good Faith Challenge to on-track safety procedures and conditions that do not comply with FRA regulations or that prevent the safe operation of roadway maintenance machines and hi-rail vehicles. Follow these steps when resolving a challenge:

- The roadway worker informs the RWIC that he or she does not believe the procedure and/or condition complies with the railroad's rules.

Note: Employees may not be subject to any retribution or punishment for making a good faith challenge. The RWIC may assign the task in question to another roadway worker, but they must be informed the task has been challenged. The challenging employee may be assigned a different task until resolution.

- The RWIC will review procedure and/or condition with the employee to verify that the procedure and /or condition complies with the railroad's rules.
- If the employee is still not satisfied that the procedure or condition complies with the railroad's rules, the RWIC will contact the Manager and complete the "Good Faith Challenge Form."
- Upon the review:
 - If the Manager determines that the procedure and/or condition is not in compliance with the railroad rules, the RWIC will correct procedure and/or condition to ensure compliance.
 - If the Manager determines that procedure and/or condition is in compliance with the railroad rules, the challenging employee must perform the assigned task.

1.9 On-Track Safety Program Documentation

Follow these requirements:

- If you are a roadway worker, have access to a copy of the On-Track Safety manual.
- If you are an RWIC, keep this manual available for use on the job

2.0 BRIDGE WORKER SAFETY

2.1 General Requirements

2.1.1 General Fall Protection Requirements

When working on a railroad bridge at a height of 12 feet or more above the ground or water surface, use personal fall arrest equipment. If fall protection is required to perform bridge repairs and proper equipment is not available for a rescue plan, the supervisor should be contacted prior to making repairs.

Note: If rescue equipment is unavailable, the work cannot be attempted until equipment is available and all involved workers are properly trained.

Where there is no deck openings through which an employee can fall, the use of personal fall arrest equipment is not required when:

- Walking within the gage of the rails.
- Performing minor inspections or repairs exclusively between the outside rails.
- Working on a bridge that has walkways or railings that meet the requirements of the American Railway Engineering & Maintenance of Way Association Manual for Railway Engineering.
- Conducting bridge inspections when:
 - A written program in place that requires training in, adherence to, and use of safe procedures associated with climbing techniques and procedures to be used.
 - The inspector has been trained and qualified according to that program.
 - The inspector has been previously and voluntarily designated to perform inspections under the provisions of that program and has accepted the designation
 - The inspector is familiar with the appropriate climbing techniques associated with bridge structures.
 - The inspector is engaged solely in moving on or about the bridge or observing, measuring and recording the dimensions and condition of the bridge.
 - The inspector is provided all equipment necessary to meet the needs of safety, including any specialized alternative systems required.
 - The installation or use of fall arrest equipment poses a greater exposure to risk than the work to be performed.

Note: Minor repairs include, but are not limited to, routine welding, spiking, anchoring, spot surfacing and joint bolt replacement. Replacing bridge ties or rail is NOT considered minor repairs.

2.1.2 Fall Protection System Standards

Fall protection systems utilized must be compliant with *49CFR Part 214.105*.

Note: Body belts cannot be utilized.

2.2 Safety Net Systems

Safety net systems must be compliant with *49CFR Part 214.105*.

2.3 Working Over or Adjacent to Water

When working over or adjacent to water four feet or greater in depth or where the potential of drowning exists utilize a:

- Personal fall protection system. (Fall protection is required if 12 or more feet above the water.)
- or
- Life vest
- Ring buoy with a minimum of 90 feet of line and no more than 200 feet between buoys and
- Inflatable boat, manned if necessary.

2.4 Inspecting Equipment and System

- Prior to use, inspect fall protection equipment and systems according to the manufacturer's instructions and as reviewed in training sessions.
- A fall protection system or component involved in a fall shall be immediately and permanently removed from service until fully inspected and determined by a competent person to be undamaged and suitable for reuse.

2.5 Cleaning and Storing Equipment

- Clean fall protection equipment components according to the manufacturer's instructions provided with the equipment, and as reviewed in training sessions.
- Store fall protection equipment components where they cannot be accessed by unauthorized personnel. Protect from adverse weather conditions, chemical exposure and open flames and sparks.

2.6 Scaffolding

Scaffolding systems utilized must be compliant with *49CFR Part 214.109*.

2.7 Bridge Worker Rescue Plan

Prior to utilizing fall protection equipment, develop a rescue plan and provide the equipment required to perform a prompt rescue. Dialing 911 is not an adequate rescue plan. The plan must provide for the removal of a suspended worker to a place of safety within 20 minutes of the fall. See following Addendum for Bridge Worker Rescue Plan requirements.

2.8 Personal Protective Equipment (PPE) for Bridge Workers

- Hard hats, conforming to the 29 CFR 1910.135(b) standards, must be utilized by bridge workers when on or under a bridge.
- Steel-toed boots, conforming to the 29 CFR 1910.136(b) standards, must be utilized by bridge workers when on or under a bridge.
- Safety glasses, conforming to 29 CFR 1910.133(b) standards, must be utilized by bridge workers when on or under a bridge.
- Face shield should be utilized when safety glasses will not provide adequate protection.
- All PPE will be kept clean and in good repair with no structural or optical damage.
- Hard hats, face shields, non-prescription safety glasses and goggles (cover-all type for workers wearing prescription glasses) shall be provided to the bridge workers.

3.0 ON-TRACK MAINTENANCE MACHINES AND HI-RAIL VEHICLES

3.1 General Prestart Checks

Prior to starting work equipment, check the following levels:

- Engine oil
- Radiator coolant
- Transmission fluid
- Hydraulic fluid
- Hydraulic brake fluid
- Fuel
- Other parts that use any type of fluid

3.2 Equipment Inspection and Condition

- Machine Operators must maintain work equipment in a safe condition.
- Machine Operators should have the necessary tools to perform daily maintenance and basic repairs.
- Machine Operators must inspect work equipment before and periodically during use
- Non-compliant conditions must be repaired immediately. If repairs cannot be made, the non-compliant FRA condition must be red tagged, dated and reported to the proper Supervisor. To continue operation of the equipment, the part(s) must be ordered by the following business day of the report of the defect. Once the part is received, the repair must be made within the time frames listed below:
 - Headlights/work light - Machine can be operated only during daylight hours for 7 days.
 - Horn - Portable horn can be utilized for 7 days
 - Fire extinguisher - Portable fire extinguisher can be utilized for 7 days
 - Back-up alarm/strobe light - 7 days
 - Structurally defective or missing Operator's seat: Must be repaired within 24 hours
 - Braking system: Move machine to clearance point and place out of service if unable to couple to other machine to provide braking
- Regardless of part availability or delivery, non-compliant equipment cannot operate for a period exceeding 30 days from the report of the defect.
- Records pertaining to the ordering of parts and repairs will be retained for one year and maintained on the equipment or at the company headquarters.

3.2.1 Repairs

- If parts are available, repairs must be completed immediately. If repairs cannot be made immediately, contact Supervisor.

- If parts have been ordered by close of next business day of defect notification (excluding brake system and operator seat failure), the machine can be operated for 30 days.
- Repairs must be made within the 30 days.
- If equipment is not repaired after 30 days, it must be removed from service.

3.2.2 Towing

- Must be equipped with towing bar or coupler device designed for towing purposes
- Must not exceed braking system capabilities

3.3 On-Track Roadway Maintenance Machine Safety Requirements (General)

- Secure position (e.g., handhold, handrails, or seat) for each operator and transported roadway worker
- Rider position must be clearly identified
- Functional horn with triggering device easily identifiable and within reach of operator
- Headlights capable of lighting 300ft ahead of equipment
- Overhead covers at the operator(s) position if previously equipped
- Floors, decks stairs, and ladders must provide secure access and free of obstructions, grease and oil
- Flagging kit, if operated alone or lead/trailing machine in gang
- Operator's manual

3.4 On-Track Roadway Maintenance Machines Safety Requirements (Built on or after January 1, 1991)

In addition to the general requirements the following also apply:

- Back-up alarm or rearward viewing mirror if feasible
- Operative heater when operated below 50 degrees or equipped or has been equipped by manufacturer
- Light weight of machine clearly displayed, if more than 7,500 pounds
- Reflective material/device or operable brake lights
- Safety glass
- Turntable lock or warning light

3.5 New On-Track Roadway Maintenance Machine Safety Requirements (Built after September 27, 2004)

In addition to the general requirements the following also apply:

- Tampers, regulators, mechanical brooms, rotary scarifiers, undercutters or mechanical equivalent must have operational heater, AC and pressurized ventilation system.
- Operator's seat, unless designed to travel by standing, then equipped with handholds or handrails to a safe and secure position
- Locking turntable (e.g., hooks latches, pins, etc.)
- Windshield with safety glass if designed with windshield. Power windshield wipers or suitable equivalent if wipers or incompatible with windshield
- Capable braking system
- First-aid kit
- Fire extinguisher (5BC rating or higher)
- Display as-built light weight in a conspicuous location
- Headlights capable of lighting 300ft ahead of equipment
- Work lights if operated at night, unless equivalent light is provided
- Operational 360-degree strobe light, unless designed without roof and light weight is less than 17,500
- Brake light activated by application of braking system and visible at 300ft
- Functional horn with triggering device clearly identifiable
- Back-up alarm with review mirror
- Speed indicator, if light weight exceed 32,500 pounds and is operated at speeds in excess of 20 mph

3.6 Hi-rail Safety Inspection Checklist

Tram, wheel wear and gage must be inspected annually with no more than 14 months between conducted inspection and the initial inspection. Inspection must be documented and retained by Supervisor unit next required annual inspection. Prior to use, the operator must ensure the following:

- The annual inspection is current.
- Inspect for non-compliant FRA condition. Non-compliant conditions must be repaired immediately. If repairs cannot be made, the non-compliant FRA condition must be red tagged, dated and reported to the proper Supervisor. Non-compliant conditions must be repaired as soon as practical within 7 days.
- Non-compliant conditions are as follows:
 - Functional strobe light
 - Back-up Alarm
 - Flagging kit

3.6.1 Repairs

- If parts are available, repairs must be completed immediately. If repairs cannot be made immediately, contact Supervisor.
- If parts have been ordered by close of next business day of defect notification (excluding brake system and operator seat failure), the hi-rail can be operated for 30 days.
- Repairs must be made within the 30 days.
- If equipment is not repaired after 30 days, it must be removed from service.

STATEMENT OF ON-TRACK SAFETY

A Lone Worker using Individual Train Detection must complete this form, or approved equivalent, **prior** to fouling a track. To complete this form:

1. Provide the following information:

Date: _____

Name: _____

Subdivision/Branch: _____

Work Location: _____

Time Limits: _____

2. In the table below, place an **X** in the box adjacent to the maximum authorized speed of trains within the working limits specified above. The minimum sight distance associated with that speed provides 15 seconds for employee to clear the track.

NOTE: ADDITIONAL TIME MUST BE ADDED FOR THE TIME REQUIRED TO CLEAR THE TRACK

Maximum Authorized Speed in MPH	Minimum Required Sight Distance		Maximum Authorized Speed in MPH	Minimum Required Sight Distance	
	X	Feet		X	Feet
5		110	35		770
10		220	40		880
15		330	45		990
20		440	50		1,100
25		550	55		1,210
30		660	60		1,320

Note: When the maximum authorized speed is not shown on the form, use the next higher speed. To the above 15 second sight distance, must be added the equivalent distance associated with the time to receive the warning, remove tools and material from the track and move to the predetermined place of safety.

This form must be in the employee's possession while work is being performed.

ON-TRACK SAFETY GOOD FAITH CHALLENGE

1. (To be completed by employee making a Good Faith Challenge)

Date: _____

Roadway Work Group: _____ RWIC: _____

Location: _____

Employee Making Challenge: _____

Type of On-Track Protection Established: _____

Reason for Challenge: _____

2. (To be completed by RWIC)

Determination of RWIC: _____

3. (To be completed by employee making Good Faith Challenge)

Check one of the following:

_____ Challenge has been resolved by determination of RWIC. Challenge has

_____ **not** been resolved by determination of RWIC.

4. Signatures of RWIC and employee making Good Faith Challenge:

RWIC

Employee Making Challenge

5. Determination by Supervisor: _____

Supervisor Signature

Date

Instructions: Upon completion, this form shall be forwarded to the Manager.

DEFINITIONS

Adjacent Controlled Track

A controlled track whose track center is spaced 19 feet or less from the track center of the occupied track.

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.

Anchorage

A secure point of attachment for lifelines, lanyards, or shock-absorbing devices that is independent of the means of supporting or suspending an employee.

Body Harness

A device with straps that can be attached to a lanyard, lifeline, or shock-absorbing device. The body harness is secured about an employee in a manner that distributes the fall arrest forces over (at a minimum) the thighs, shoulders, pelvis, waist, and chest.

Controlled Tracks

Tracks upon which the rules require that all movements of trains must be authorized by a train dispatcher or a control operator/train dispatcher.

Control Operator/Train Dispatcher

A railroad RWIC of a remotely controlled switch or derail, interlocking, control point or segment of controlled track.

Control Point

A location where signals and/or other functions of a traffic control system are controlled from the control machine.

Effective Securing Device

When used in relation to a manually operated switch or derail, one that is:

- Vandal resistant
- Tamper resistant
- Designed to be applied, secured, uniquely tagged and removed only by the class, craft or group of employees for whom protection is being provided.

In the absence of a lock, it is acceptable to use a spike driven firmly into a switch tie or a switch point clamp to prevent the use of a manually operated switch. It is also acceptable to use portable derails secured with specifically designed metal wedges. Securing devices without a specially keyed lock shall be designed in such a manner that they require railroad track tools for installation and removal and the operating rules of

the railroad must prohibit removal by employees other than the class, craft, or group of employees for whom the protection is being provided. Regardless of the type of securing device, the throwing handle or hasp of the switch or derail shall be uniquely tagged. If there is no throwing handle, the securing device shall be tagged.

Employee

An individual who is engaged or compensated by a railroad or by a contractor to perform any of the duties defined in this part.

Employer

A railroad or a contractor to a railroad, that directly engages or compensates individuals to perform any of the duties defined in this part.

Exclusive Track Occupancy

A method of establishing working limits on controlled track.

Fall Restraint System

A system that consists of anchorages and other personal fall arrest equipment. The equipment is selected, arranged, and used in a way that keeps an employee from reaching a location from where a fall can occur.

Flagman

An employee designated to direct or restrict the movement of trains past a point on a track to provide On-Track Safety for roadway workers. The Flagman is engaged solely in performing that function.

Foul Time

Method of establishing working limits on controlled track in which a roadway worker is notified by the train dispatcher or the control operator/train dispatcher that no trains will operate within a specific segment of controlled track until the roadway worker reports clear of the track.

Fouling

Placement of an individual or a piece 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 **4 feet** of the field side of the rail.

Free Fall

The act of falling before a personal fall arrest system begins to apply force to arrest a fall.

Hi-rail Vehicle

A roadway maintenance machine that is manufactured to meet Federal Vehicle Motor

Safety Standards and is equipped with retractable flanged wheels so that the vehicle may travel over the highway or on railroad tracks.

Inaccessible Track

Method of establishing working limits on non-controlled track by physically preventing entry and movement of trains and equipment.

Individual Train Detection (ITD)

Procedure by which a **Lone Worker** acquires On-Track Safety by seeing approaching trains and leaving the track before they arrive.

Interlocking, Manual

An arrangement of signals and signal appliances operated from an interlocking machine and so interconnected by means of mechanical and/or electric locking that their movements must succeed each other in proper sequence, train movements over all routes being governed by signal indication.

Lanyard

A flexible line of rope, wire rope, or strap that is used to secure a body harness to a shock-absorbing device, lifeline, or anchorage.

Lifeline

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). A lifeline provides a means for connecting other components of a personal fall arrest system to the anchorage.

Lone Worker

An individual roadway worker who is not receiving 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.

Lookout/Watchman

An employee designated to provide warning to roadway workers of approaching trains or on-track equipment.

Maximum Authorized Speed

The highest speed permitted for the movement of trains permanently established by timetable/special instructions, general order, or track bulletin.

Minor Correction

Minor correction means 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, or any similarly distracting repair.

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 a control operator/train dispatcher.

Occupied Track

Occupied track means 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.

On-Track Safety Manual

The entire set of on-track safety rules and instructions maintained together in one manual designed to prevent roadway workers from being struck by trains or other on-track equipment. These instructions include operating rules and other procedures concerning on-track safety protection and on-track safety measures.

Personal Fall Arrest System

A system used to arrest the fall of an employee from a working level. It consists of an anchorage, connections, body harness, lanyard, shock-absorbing device, lifeline, or a combination of these.

Qualified Employee

An employee who has successfully completed all required training, demonstrated proficiency in and been authorized to perform duties of a particular position or function.

Railroad Bridge

A structure that supports one or more railroad tracks above land or water and has a **span length** of 12 feet or more, as measured along the track centerline. The term **railroad bridge** applies to the entire structure between the faces of the backwalls of abutments or equivalent components, regardless of the number of spans.

Restricted Speed

When required to move at restricted speed, movement must be made at a speed that allows stopping 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. When a train or engine is required to move at restricted speed, the crew must keep a lookout for broken rail and not exceed 20 MPH.

Comply with these requirements until the leading wheels reach a point where movement at restricted speed is no longer required.

Roadway Maintenance Machine

A maintenance machine used on or near the track for maintenance, repair, construction or inspection of track, bridges, roadway, signal and communications systems. Roadway Maintenance Machines may be on-track, off-track or both. The maintenance machines include hi- rails, motor cars, Roadway Maintenance Machines, work equipment and other forms of track cars.

Roadway Maintenance Machines Equipped with a Crane

Any roadway maintenance machine equipped with a crane or boom that can hoist, lower, and horizontally move a suspended load.

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 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, roadway facilities or roadway machines on or near the track or with the potential of fouling a track and flagmen and watchmen/lookouts as defined in this program.

Train Approach Warning

A method of establishing On-Track Safety by warning roadway workers of the approach of trains in ample time to move to, or remain in, a place of safety in accordance with requirements of FRA Roadway Worker Protection Rules.

Train Coordination

A method of establishing working limits on controlled 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 railroad employee assigned to control and issue orders governing the movement of trains on a specific segment of railroad track in accordance with the operating rules of the railroad that apply to that segment of track.

WATCHMAN/LOOKOUT

An employee who has been trained and qualified to provide warning to Roadway Workers of approaching trains or on-track equipment. Watchman/Lookouts shall be properly equipped to provide visual and auditory warning such as whistle or air horn and a white disk, white flag, or lantern. A Watchman/Lookout's sole duty is to look out for approaching trains/on-track equipment and provide at least fifteen (15) seconds advanced warning to employees before arrival of trains/on-track equipment

Working Limits

A segment of track with definite boundaries upon which trains, engines and roadway machines may move only as authorized by the roadway worker designated as the RWIC.

Work Zone

The area around a roadway machine that must not be entered without first communicating with the operator to establish safe work procedures.

YARD LIMITS

A portion of the main track designated by yard limit signs and timetable special instructions or a track bulletin.