Alaska Railroad Corporation

M.O.M.

Maintenance Operating Manual

Notification of Effective Date and Time

Will be Made by General Order

2013

SAFETY VISION

We believe every accident or injury is preventable, and we believe the Alaska Railroad Corporation (ARRC) is capable of operating free of accidents and injuries. The ARRC will achieve this vision through:

- A culture that makes the safety of our employees, customers, and communities our highest priority, that sets rigorous standards for safety excellence, and that is open to vigorous self-assessment of our progress and effectiveness;

- A work environment where all known hazards will be eliminated or safeguarded and where employees expect to be safe and accident-free;

- Training and education for all employees that make safe production the core of every task we perform;

- A workforce made up of people who take responsibility for their personal safety, the safety of their fellow employees, and the communities we serve.

SAFETY STATEMENT

Safety is a core value for the Alaska Railroad Corporation (ARRC). It is the responsibility of every member of the ARRC family. Our goal is to work safely and to protect one another.

Because rules alone cannot prevent incidents and injuries, each of us is empowered to make decisions and take the necessary steps to achieve our goal. We must rely on sound professional judgment when no specific rule, recommended practice, or procedure applies. If in doubt about the meaning of any rule or instructions, before proceeding we must seek out a co-worker, supervisor, or other resource for guidance and support. By working together, we will create the safest possible environment for all.

Here are two of the most important truths of our work together in this organization:

1) Each of us is the only person who can guarantee that he/she performs his/her work safely; and 2) We need to watch out for one another out there.

Remember: No job is so important, no service so urgent that we cannot take the time to perform all work safely.

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SECTION I: INTRODUCTION

The goal this year for the Maintenance Operating Manual was to bring it more inline with maintenance operations as opposed to operations of trains and engines. While the manual does follow GCOR closely it is not a mirror image. Where there is a conflict with GCOR the Maintenance Operating Manual will be the applicable rule for employees governed by this manual. Where a craft specific rule, ie…Hours of Service, is not covered in the Maintenance Operating Manual, the GCOR will be the governing rule application.

Where careful consideration was given to editing the Maintenance Operating Manual to conform to ARRC Track Car Operations and Roadway Worker Protection policies, any reference to train and engine operations within this manual, that are applicable to Track Car operations, should be considered the governing rule and must be complied with.

Employees governed by this manual are required to possess and be familiar with the information contained within the current Timetable Special Instructions and all General Orders in effect. In addition employees governed by this manual are required to possess all current Operating Circulars and comply where applicable.

SECTION II: OPERATING RULES

1.0 General Responsibilities

1.1 Safety

Safety is the most important element in performing duties. Obeying the rules is essential to job safety and continued employment.

Empowerment

All employees are empowered and required to refuse to violate any rule within these rules. They must inform their immediate supervisor if they believe that a rule will be violated. This must be done before the work begins.

Job Safety Briefing

Conduct a job safety briefing with individuals involved:

- Before beginning work
- Before performing new tasks
- When working conditions change

The job safety briefing must include the type of authority or protection in effect.

1.1.1 Maintaining a Safe Course

In case of doubt or uncertainty, take the safe course.

1.1.2 Alert and Attentive

Employees must be careful to prevent injuring themselves or others. They must be alert and attentive when performing their duties and plan their work to avoid injury.

1.1.3 Accidents, Injuries, and Defects

Report by the first means of communication any accidents, personal injuries, defects in tracks, bridges, or signals, or any unusual condition that may affect the safe and efficient operation

of the railroad. Where required, furnish a written report promptly after reporting the incident.

The employee on whom the responsibility most naturally falls must assume authority until the proper manager arrives.

When an accident occurs at a road crossing, do not cut trees, weeds, or make any changes to the scene until representatives from the ARRC have investigated.

1.1.4 Condition of Equipment and Tools

Employees must check the condition of equipment and tools they use to perform their duties. Employees must not use defective equipment or tools until they are safe to use. Employees must report any defects to the proper authority.

1.1.5 Inspection after Derailment

After derailed equipment has been rerailed, employees must check the condition of the track to ensure it is safe for the equipment to proceed.

1.2 Personal Injuries and Accidents

1.2.1 Care For Injured

When passengers or employees are injured, do everything reasonable to care for them.

1.2.2 Witnesses

If equipment is involved in personal injury, loss of life, or damage to property, the Employee In Charge must immediately secure the names, addresses, and occupations of all persons involved, including all persons at the scene when the accident occurred and those that arrived soon after. The Employee In Charge must secure the names regardless of whether these persons admit knowing anything about the accident.

The Employee In Charge must also obtain the license numbers of nearby automobiles. When necessary, other employees can assist in obtaining this information, which must be included in reports covering the incident.

Where signaling devices are provided or a flagman is on duty, the Employee In Charge and assisting employees must try to determine who, among the witnesses, can testify whether the

signaling devices were functioning properly or if the flagman was performing his duties properly.

When possible, obtain the names of witnesses who can testify about the bell and whistle signals.

1.2.3 Equipment Inspection

If an accident results in personal injury or death, all tools, machinery, and other equipment involved, including the accident site, must be inspected promptly by the foreman, another person in charge of the work, or other competent inspectors. The inspector must promptly forward to his manager a report of the inspection. The report must include the condition of the equipment and the names of those making the inspection.

The equipment inspected must be marked for identification and placed in custody of the responsible manager or employee until the Claims Department is contacted and determines disposition.

1.2.4 Mechanical Inspection

When engines, cars, or other equipment are involved in an accident that results in personal injury or death, the equipment must be inspected before it leaves the accident site.

A Mechanical Department employee must further inspect the equipment at the first terminal. This employee must promptly report inspection results to the proper manager.

1.2.5 Reporting

All cases of personal injury, while on duty or on company property, must be immediately reported to the proper manager and the prescribed form completed.

A personal injury that occurs while off duty that will in any way affect employee performance of duties must be reported to the proper manager as soon as possible. The injured employee must also complete the prescribed written form before returning to service.

1.2.6 Statements

Except when authorized by the proper manager:

- Information concerning accidents or personal injuries that occur to persons other than employees may be given only to

an authorized representative of the railroad or an officer of the law.

- Information about the facts concerning the injury or death of an employee may be given only to the injured employee, an immediate relative of the injured or deceased employee, an authorized representative of the railroad, or an officer of the law.

- Information in the files or in other privileged or confidential reports of the railroad concerning accidents or personal injuries may be given only to an authorized representative of the railroad.

1.2.7 Furnishing Information

Employees must not withhold information or fail to give all the facts to those authorized to receive information regarding unusual events, accidents, personal injuries, or rule violations.

1.3 Rules

1.3.1 Rules, Regulations, and Instructions

Safety Rules. Employees must have a copy of, be familiar with, and comply with all safety rules issued in a separate book or in another form.

Maintenance of Way Operating Rules. Employees governed by these rules must have a current copy they can refer to while on duty.

Hazardous Materials. Employees who in any way handle hazardous materials must have a copy of the instructions or regulations for handling these materials. Employees must be familiar with and comply with these instructions or regulations.

Timetable/Special Instructions. Employees whose duties are affected by the timetable/special instructions must have a current copy they can refer to while on duty.

Classes. Employees must be familiar with and obey all rules, regulations, and instructions and must attend required classes. They must pass the required examinations.

Explanation. Employees must ask their supervisor for an explanation of any rule, regulation, or instruction they are unsure of.

Issued, Cancelled, or Modified. Rules may be issued, cancelled, or modified by track bulletin, general order, or special instructions.

Engineering Instructions. Employees governed by the Engineering Instructions must be familiar with and comply with all their provisions.

1.3.2 General Orders

General orders:

- Are numbered consecutively.
- Are issued and cancelled by the designated manager.
- Contain only information and instructions related to rules or operating practices.
- Replace any rule, special instruction, or regulation that conflicts with the general order.

Before beginning each day's work or trip, crew members and any others whose duties require must review general orders that apply to the territory they will work on.

1.3.3 Circulars, Instructions, and Notices

Circulars, instructions, notices, and other information are issued and cancelled by the designated manager. Before beginning each day's work or trip, crew members and any others whose duties require must review those that apply to the territory they will work on.

1.4 Carrying Out Rules and Reporting Violations

Employees must cooperate and assist in carrying out the rules and instructions. They must promptly report any violations to the proper supervisor. They must also report any condition or practice that may threaten the safety of trains, passengers, or employees, and any misconduct or negligence that may affect the interest of the railroad.

1.4.1 Good Faith Challenge

A. Right to Challenge

Federal Regulations have provisions that allow an employee the right to challenge a directive which, based upon the employee's good faith determination, would violate a railroad operating rule relating to:

- Shoving movements.

- Leaving equipment foul of an adjacent track.

or

- Handling of hand-operated switches or fixed derails.

B. Good Faith Challenge Procedure

1. An employee may inform a supervisor issuing a directive that a good faith determination has been made that the directive would violate a railroad operating rule relating to:
   - Shoving movements.
   - Leaving equipment foul of an adjacent track.

or

   - Handling of hand-operated switches or fixed derails.

2. The supervisor will not require the employee to comply with the directive until the challenge is resolved. The supervisor may:
   - Require the challenging employee to perform other tasks not related to the challenge until the challenge is resolved. or
   - Direct an employee, other than the challenging employee, to perform the challenged task before the challenge is resolved. Employee so directed will be informed of the challenge, and determine that the challenged task does not violate the rules.

C. Resolving Good Faith Challenge

1. A challenge may be resolved by one of the following:
   - The supervisor's acceptance of the employee's request.
   - An employee's acceptance of the directive.
   - An employee's agreement to a compromise solution acceptable to the person issuing the directive.

2. If the challenge cannot be resolved because the supervisor issuing the directive has determined that the employee's challenge has not been made in good faith or there is no alternative to the direct order, the railroad will:
   - Provide immediate review by at least one manager, which must not be conducted by the supervisor issuing the challenged directive or that supervisor's subordinate.
   - Resolve the challenge using the same options available for resolving the challenge as the initial supervisor.

3. If the manager making the final decision concludes that the challenged directive would not cause the employee to violate any requirement of the involved rules, the reviewing manager's decision shall be final and not subject to further immediate review.

- The manager will inform the employee that Federal law may protect the employee from retaliation, if the employee's refusal to do the work is a lawful, good faith act.
- The employee making the challenge will be afforded an opportunity to document, in writing or electronically, any protest to the manager making the final decision before the employee's tour of duty is complete. The employee will be afforded the opportunity to retain a copy of the protest.

D. Request for Review and Verification of Decision

Upon written request, at the time of the challenge, the employee has the right for further review by the "Designated Review Manager". Within 30 days after the expiration of the month during which the challenge occurred, the "Designated Review Manager" will verify the proper application of the rule in question. The verification decision shall be made in writing to the employee.

E. Employee Rights and Remedies

The Good Faith Challenge is not intended to abridge any rights or remedies available to the employee under a collective bargaining agreement or any Federal law.

1.5 Drugs and Alcohol

Measurable alcohol is defined to be .02 percent or greater breath alcohol content.

The use or possession of alcoholic beverages while on duty or on company property is prohibited. Employees must not have any measurable alcohol in their breath or in their bodily fluids when reporting for duty, while on duty, or while on company property.

The use or possession of intoxicants, over-the-counter or prescription drugs, narcotics, controlled substances, or medication that may adversely affect safe performance is prohibited while on duty or on company property, except medication that is permitted by a medical practitioner and used as prescribed. Employees must not have any prohibited substances in their bodily fluids when reporting for duty, while on duty, or while on company property.

1.6 Conduct

Employees must not be:

1. Careless of the safety of themselves or others

2. Negligent
3. Insubordinate
4. Dishonest
5. Immoral
6. Quarrelsome

   or

7. Discourteous

Any act of hostility, misconduct, or willful disregard or negligence affecting the interest of the company or its employees is cause for dismissal and must be reported. Indifference to duty, or to the performance of duty, will not be tolerated.

1.6.1 Motor Vehicle Driving Records

Employees, whatever class of service, must report convictions for:

- Operating a motor vehicle while under the influence of, or impaired by, alcohol or a controlled substance.

An employee must report any conviction to an employee assistance representative within 48 hours after the employee receives notice of the conviction.

1.6.2 Notification of Felony Convictions

The conduct of any employee leading to conviction of any felony is prohibited. Any employee convicted of a felony must notify the proper authority of that fact within 48 hours after the employee receives notice of the conviction.

1.6.3 Notification of Deteriorating Vision or Hearing

Any Roadway Worker who has knowledge that his or her hearing or vision has deteriorated and cannot be corrected to the minimum acceptable requirement as outlined in federal regulations (20/40 distant visual acuity, 70 degree field of vision, ability to recognize/distinguish between railroad color signals, hearing loss no greater than 40 decibels) must report that fact immediately to the proper authority or the Medical Department.

1.7 Altercations

Employees must not enter into altercations with each other, play practical jokes, or wrestle while on duty or on railroad property.

1.8 Appearance

Employees reporting for duty must be clean and neat. They must wear the prescribed uniform when required.

1.9 Respect of Railroad Company

Employees must behave in such a way that the railroad will not be criticized for their actions.

1.10 Games, Reading, or other Media

Employees on duty must not:

- Play games
- Use personal electronic devices other than provided for in Rule 2.21 (Electronic Devices).
  or
- Read magazines, newspapers, or other literature not related to their duties when:

  - On a train or engine,
  - Performing safety related activities,
    or
  - It would delay or interfere with required duties.

This does not prohibit employees from having such material enclosed in their personal luggage.

1.11 Sleeping

Employees must not sleep while on duty. Employees reclined with their eyes closed will be in violation of this rule.

1.11.1 Napping

Rule 1.11.1 does not apply to the Alaska Railroad, napping is not permitted.

1.12 Weapons

While on duty or on railroad property, employees must not have firearms or other deadly weapons, including knives with a blade longer than 3 inches. Employees may possess these weapons only if they are

authorized to use them to perform their duties, or if they are given special permission by the designated manager.

1.13 Reporting and Complying with Instructions

Employees will report to and comply with instructions from supervisors who have the proper jurisdiction. Employees will comply with instructions issued by managers of various departments when the instructions apply to their duties.

1.15 Duty-Reporting or Absence

Employees must report for duty at the designated time and place with the necessary equipment to perform their duties. They must spend their time on duty working only for the railroad. Employees must not leave their assignment, exchange duties, or allow others to fill their assignment without proper authority. Continued failure by employees to protect their employment will be cause for dismissal.

1.16 Subject to Call

Employees subject to call must indicate where they can be reached and must not be absent from their calling place without notifying those required to call them.

1.17 Hours of Service Law

Employees governed by Hours of Service Law must be familiar and comply with the requirements of the federal hours of service law. Employees are expected to use off-duty time so they are prepared for work.

If an employee is called to report for duty before legal off-duty time has expired, before accepting the call to work, the employee must notify the individual making the call that off-duty time has not expired.

A. Notification

When communication is available, employees must notify the train dispatcher or another authority of the time the law requires them to be off duty. Employees must provide notification early enough that they may be relieved, or transportation provided, before they exceed the hours of service.

B. Exceeding the Law

Employees must not exceed the hours of service law without proper authority.

1.18 Unauthorized Employment

Employees must not engage in another business or occupation that would create a conflict of interest with their employment on the railroad or would interfere with their availability for service or the proper performance of their duties.

1.19 Care of Property

Employees are responsible for properly using and caring for railroad property. Employees must return the property when the proper authority requests them to do so. Employees must not use railroad property for their personal use.

1.20 Alert to Train Movement

Employees must expect the movement of trains, engines, cars, or other movable equipment at any time, on any track, and in either direction.

Employees must not stand on the track in front of an approaching engine, car, or other moving equipment.

Employees must be aware of location of structures or obstructions where clearances are close.

1.21 Occupying Roof

Employees whose duties require them to occupy the roof of a car or engine must do so only with proper authority and when the equipment is standing.

1.22 Not Permitted on Equipment

Unauthorized persons must not be permitted on equipment.

1.23 Altering Equipment

Without proper authority, employees must not alter, nullify, change the design of, or in any manner restrict or interfere with the normal function of any device or equipment on engines, cars, or other railroad property, except in the case of an emergency. Employees must report to the proper supervisor changes made in an emergency.

1.24 Clean Property

Railroad property must be kept in a clean, orderly, and safe condition. Railroad buildings, facilities, or equipment must not be damaged or defaced. Only information authorized by the proper manager or required by law may be posted on railroad property.

1.25 Credit or Property

Unless specifically authorized, employees must not use the railroad's credit and must not receive or pay out money on the railroad account. Employees must not sell or in any way get rid of railroad property without proper authority. Employees must care for all articles of value found on railroad property and promptly report the articles to the proper authority.

1.26 Gratuities

Employees must not discriminate among railroad customers. Employees must not accept gifts or rewards from customers, suppliers, or contractors of the railroad unless authorized by the proper manager.

1.27 Divulging Information

Employees who make up, handle, or care for any of the following must not allow an unauthorized person to access them or disclose any information contained in them:

- Correspondence
- Reports
- Books
- Bills of Lading
- Waybills
- Tickets
- Statistics

1.28 Fire

Employees must take every precaution to prevent loss and damage by fire.

Employees must report promptly to the train dispatcher any fires seen on or near the right of way, unless the fires are being controlled. If there is danger of the fire spreading to a bridge or other structure, crew members must stop their train and help extinguish the fire. Cause of fire, if known, must be promptly reported.

1.33 Loading Freight Cars

Freight cars must be loaded safely.

If width or height approaches clearance restrictions, movement must be cleared with the proper authority.

1.34 Flat Spots

If a wheel on a piece of equipment has a flat spot more than 2½ inches long, or if the wheel has adjoining flat spots that are each at least 2 inches long, the equipment must not be moved faster than 10 mph. Such equipment must be set out at the first available point.

1.35 Dump Doors

Be sure dump doors on cars are closed after a load is dumped. If car must be moved short distances with the dump doors open, make sure the doors and chains will clear tracks and crossings.

1.44 Duties of Train Dispatchers

Train dispatchers supervise train movement and any employees connected with that movement.

1.46 Duties of Terminal Supervisors

At locations where a Terminal Supervisor is on duty, employees must comply with the Terminal Supervisor's instructions when the employees' duties affect yard movement. At locations where no Terminal Supervisor is on duty, employees must comply with the instructions of the designated employee.

1.47 Duties of Crew Members

The Foreman and Work Leader are responsible for the safety and protection of their crew and observance of the rules. They must ensure that their subordinates are familiar with their duties and determine the extent of their experience and knowledge of the rules. They must instruct them, when necessary, how to perform their work properly and safely. If any conditions are not covered by the rules, they must take precautions to provide protection.

A. Foreman / Work Leader Responsibilities

1. The Foreman and Work Leader supervise the operation and administration of the project. All persons employed as a crewmember must obey the Foreman or Work Leaders instructions, unless the instructions endanger the crew's safety or violate the rules. If any doubts arise concerning the authority for proceeding or safety, the Foreman must consult with the Work Leader and they will be equally responsible for the safety of the crew and operators.

2. The crew must remind each other that they are approaching an area restricted by:

    - Limits of authority

- Mandatory directive
- Track bulletin

3. When the Foreman or Work Leader is not present, other crew members must obey the instructions of the senior employee concerning rules, safety, and protection of the crew.

B. All Crew Members' Responsibilities

1. To ensure the work is performed safely and rules are observed, all crew members must act responsibly to prevent accidents or rule violations. Crew members in the operator's cab of a track car must communicate to each other any restrictions or other known conditions that affect the safe operation of their track car sufficiently in advance of such condition to allow the operator to take proper action. If proper action is not being taken, crew members must remind the operator of such condition and required action.

2. Crew members occupying a track car must be alert for signals. As soon as signals become visible or audible, crew members must communicate clearly to each other the name of signals affecting their movement. If the signal is not complied with promptly, crew members must remind the operator of the rule requirement. If crew members do not agree on the signal indication, regard the signal as the most restrictive indication.

3. When the operator fails to comply with a signal indication or take proper action to comply with a restriction or rule, crew members must immediately take action to ensure safety.

1.48 Time

While on duty, crew members must have a watch. Other employees must have access to a watch or clock.

The watch or clock must:

- Be in good working condition and reliable.
- Display hours, minutes, and seconds.
- Not vary from the correct time by more than 30 seconds.
- Compare time with the Train Dispatcher or another employee who has compared.
- Compare time with the ARRC Intranet, Go to: MOW page, click: Daily Reports Forms and Resources, click: GPS Time Check

1.49 Encroachment

Encroachment on railroad property, including building occupancy or the unauthorized dumping or storage of material having an adverse environmental impact, is prohibited.

When observing outside parties performing work that may encroach on the right-of-way, report the location and the nature of work to the proper authority.

Livestock found on railroad property must be driven away or handled as directed.

2.0 Railroad Radio and Communication Rules

2.1 Transmitting

Any employee operating a radio must do the following:

- Before transmitting, listen long enough to make sure the channel is not being used.
- Give the required identification.
- Do not proceed with further transmission until acknowledgment is received.

2.2 Required Identification

- For base or wayside stations:
  - Name or initials of the railroad.
  - Name and location or other unique designation.
- For mobile units:
  - Name or initials of the railroad.
  - Train name (number), engine number, or words that identify the precise mobile unit.

If communication continues without interruption, repeat the identification every 15 minutes.

2.3 Repetition

An employee who receives a transmission must repeat it to the person transmitting the message, except when the communication:

- Concerns yard switching operations.
- Is a recorded message from an automatic alarm device.

  or

- Is general and does not contain any information, instruction, or advice that could affect the safety of a railroad operation.

2.3.1 Directions and Numbers

When issuing or repeating track and time limits, mandatory directives, TWC authorities, track bulletins, observe the following guidelines:

Directions—Directions (North, South) must be pronounced, then spelled.

Numbers

When the figure has more than one number:

1. State the number in words. (Example: Three-hundred sixty five)

2. State each figure in the number. (Example: Three, six, five)

When the figure has only one number:

1. State the number. (Example: Three)

2. Spell the word. (Example: T, H, R, E, E)

2.4 Ending Transmission

Employees using a radio for transmissions must state to the employee receiving the transmission the following as it applies to indicate that the communication has ended or is completed:

“OVER”—when a response is expected.

or

“OUT”—preceded by required identification—when no response is expected.

However, these requirements do not apply to yard switching operation.

2.6 Communication Not Understood or Incomplete

An employee who does not understand a radio communication or who receives a communication that is incomplete must not act upon the communication and must treat it as if it was not sent.

EXCEPTION: An employee who receives information that may affect the safety of employees or the public or cause damage to property must take the safe course.

When necessary, stop movement until the communication is understood.

2.7 Monitoring Radio Transmissions

Radios in attended base station or mobile units must be turned on to the appropriate channel with volume loud enough to receive communications. Employees attending base stations or mobile units must acknowledge all transmissions directed to the station or unit.

2.8 Acknowledgment

An employee receiving a radio call must acknowledge the call immediately unless doing so would interfere with safety.

2.9 Misuse of Radio Communications

Employees must not use radio communication to avoid complying with any rule.

2.10 Emergency Calls

Emergency calls will begin with the words, “Emergency,” “Emergency,” “Emergency.” These calls will only be used to cover initial reports of hazardous conditions which could result in death or injury, damage to property, or serious disruption of railroad operations, such as:

- Derailments
- Collisions
- Storms
- Washouts
- Fires
- Track obstructions

  or

- Emergency brake applications

In addition, emergency calls must be made for the following:

- Overrunning limits of authority

  or

- Overrunning STOP indications

Emergency calls must contain as much complete information on the incident as possible.

All employees must give absolute priority to an emergency communication. Unless they are answering or aiding the emergency call, employees must transmit until they are certain no interference will result.

2.11 Prohibited Transmissions

Employees must not transmit a false emergency or an unnecessary or unidentified communication. Employees must not use indecent language over the radio. Employees must not reveal the existence, contents, or meaning of any communication (except emergency communications) to persons other than those for whom it is intended, or those whose duties may require knowing about it.

2.12 Fixed Signal Information

Employees must not use the radio to give information to a train or engine crew about the name, position, aspect, or indication displayed by a fixed signal, unless the information is given between members of the same crew or the information is needed to warn of an emergency.

2.14 Transmission of Mandatory Directives

When transmitted by radio, mandatory directives must conform to applicable operating rules and the following:

- The train dispatcher must state which mandatory directive will be transmitted.
- The employee must inform the train dispatcher when ready to copy stating the employee's occupation (ex. conductor, engineer, foreman, maintainer), name and location on the controlled track or where the controlled track will be entered. An employee operating the controls of a moving Track Car may not copy mandatory directives. In addition, mandatory directives must not be transmitted to the crew of a moving Track Car if the operator, crew or train dispatcher feels that the transmission could adversely affect the safe operation of the track car.
- The employee receiving a mandatory directive must copy it in writing using the format outlined in the operating rules.
- Before a mandatory directive is acted upon, the Track Car Operator must have a written copy and at least one crew member, rules qualified if available, must read and initial it. All crew members must be briefed on the authority limits and restrictions.

2.14.1 Verbally Transmitting and Repeating Mandatory Directives

When transmitting and repeating mandatory directives:

- State and spell single digit numbers by number and digit.

- State multiple digit numbers by number and digit.
- Identify decimal points as “point,” “dot,” or “decimal.”
- State and spell directions.

2.15 Phonetic Alphabet

See also Glossary—Phonetic Alphabet

If necessary, a phonetic alphabet (Alpha, Bravo, Charlie, etc.) will be used to pronounce clearly any letter used as an initial, except initial letters of railroads.

2.16 Assigned Frequencies

The railroad must authorize any radio transmitters used in railroad service. Radio transmitters must operate on the frequencies that the Federal Communications Commission assigns the railroad. Employees are prohibited from using other transmitters or railroad frequencies not assigned to that particular territory.

2.17 Radio Testing

Test radios that are to be used as soon as possible before the beginning of a work assignment. The radio test must include an exchange of voice transmissions with another radio. The test must confirm the quality of the radio’s transmission.

2.18 Malfunctioning Radio

Malfunctioning radios must not be used. As soon as possible, notify each crew member and the train dispatcher or other affected employees that the radio is not working.

2.19 Blasting Operations

Employees must not operate radio transmitters located less than 250 feet from blasting operations.

2.20 Internal Adjustments

Employees are prohibited from making internal adjustments to a railroad radio unless they are specifically authorized by the FCC or hold a current Certified Technician’s Certificate. Employees authorized to make adjustments must carry their FCC operator license, Certified Technician’s Certificate, or verification card while on duty.

2.20.1 Modifying ARRC Radios

Only ARRC authorized employees shall repair or modify ARRC radios.

2.21 Electronic Devices

This rule outlines the requirements for use of electronic devices. The restrictions of this rule do not apply-

a) To railroad radios;

b) When a railroad radio failure occurs and an electronic device is used in accordance with railroad rules;

c) To locating, testing or record keeping devices related to railroad maintenance activities;

d) To an electronic device that conveys a mandatory directive that has been supplied by the railroad; or

e) To electronic control systems and information displays within the cab of a roadway maintenance machine.

A. General use of Electronic Devices

A railroad employee shall not use an electronic device of any kind if that use would interfere with the employee's or another employee's performance of safety related duties.

B. Definitions

As used in this rule 2.21, the following definitions apply:

Authorized business purpose means:

A purpose directly related to the railroad tasks that a roadway worker is expected to perform during the current tour of duty as specified by the railroad.

Earpiece means:

A small speaker that is inserted in, or held next to, the ear for use in transmitting sounds produced on an electronic device.

Electronic Device means:

An electronic or electrical device used to conduct oral, written, or visual communication; place or receive a telephone call; send or read an electronic mail message or text message; look at pictures; read a book or

other written material; play a game; navigate the Internet; play, view, or listen to a video; play, view or listen to a television broadcast; play or listen to a radio broadcast other than a radio broadcast by the railroad; play or listen to music; execute a computational function; or, perform any other function that is not necessary for the health or safety of the person and that entails the risk of distracting the employee or another employee from a safety related task. This term does not include a digital watch whose only purpose is as a timepiece or as a calculator used for authorized business purposes.

Fouling a Track means:

The placement of an individual in such proximity to a track that the individual could be struck by a moving train, roadway maintenance machine, or other on-track equipment, or in any case on the ground within four feet of the nearest rail.

Medical Device means:

An instrument, apparatus, implement, machine, contrivance, implant or other similar or related article (including a component part), or accessory that is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease or other conditions.

Personal Electronic Device means:

An electronic device that was not provided to the roadway worker by the railroad for an authorized business purpose.

Railroad-Supplied Electronic Device means:

An electronic device provided to a roadway worker by the railroad for an authorized business purpose. A railroad-supplied device will be considered a personal electronic device when it is being used by the roadway worker for a purpose other than an authorized business purpose.

Roadway Maintenance Machine means:

A device powered by any means of energy other than hand power which is being used on or near railroad track for maintenance, repair, construction or inspection of track, bridges, roadway, signal, or communications. Roadway maintenance machines may have road or rail wheels or may be stationary.

Roadway Worker means:

Any employee of the railroad performing duties that include inspection, construction, maintenance or repair of railroad track, bridges, roadway, signal and communications systems, roadway facilities or roadway maintenance machinery on or near track or with the potential of fouling a track, and flagmen and watchmen/lookouts providing protection for roadway workers.

Switching operation means:

The assembling of rail cars for train movements; changing the position of cars for purposes of loading or unloading; movement of cars that does not constitute a train movement; or changing the order of roadway maintenance machines.

C. Use of Personal Electronic Devices

When not in use in a manner authorized by this rule, each personal electronic device must be turned off and stowed out of sight with any earpiece removed from the ear.

During a designated lunch break a roadway worker may use a personal mobile phone, for voice communication only, when:

a) The roadway worker conducts a briefing with their immediate supervisor, or entire workgroup (which ever is applicable), to confirm that it will not interfere with any safety related or required duty; and

b) The roadway worker will not foul any track.

Mobile phone must be turned off when the call has been completed.

D. Use of Railroad-Supplied Electronic Devices

Roadway workers may use a railroad-supplied electronic device only for an authorized business purpose.

Roadway workers shall not use a railroad-supplied electronic device while:

a) Operating the controls of a roadway maintenance machine; or

b) At the controls of a roadway maintenance machine and any other employee is assisting in the preparation of the roadway maintenance machine for use, including testing of railroad equipment or brakes; or

c) On the ground and fouling any track; or

d) On the ground and engaged in an active switching operation; or

e) Riding rolling equipment during a switching operation; or

f) Inside the controlling cab of a locomotive, or roadway maintenance machine, unless there has been a safety briefing and all crew members agree that it is safe to do so; or

g) Verbally obtaining or releasing mandatory directives when railroad radio communication is available.

E. Permitted Uses

Not withstanding any other limitations in this rule, a roadway worker may use the following, if that use does not interfere with any employee's performance of safety related duties-

a) An electronic device as necessary to respond to an emergency situation involving the operation of the railroad or encountered while performing a duty for the railroad.

b) An electronic device to take a photograph of a safety hazard or a violation of a rail safety law, regulation, order, or a defect, or a deviation from a standard, provided that –

1. A job briefing is conducted among all crewmembers;

2. The camera is turned off immediately after the documentation has been made;

3. The camera is not used by an employee at the controls of a moving roadway maintenance machine;

A camera that is part of a mobile phone or other multi-functional electronic device is not included in this exception unless it is a railroad supplied device and is used for an authorized business purpose.

c) A stand alone calculator if used for an authorized business purpose.

d) A medical device.

2.22 Requirement for Roadway Workers

Maintenance of Way equipment operating between work locations shall have a working radio on at least one unit in each work group traveling together under the same authority. The operators of each additional piece of Maintenance of Way equipment shall have communications capability with each other, which can include the ability to pass and receive hand and other signals.

Each Maintenance of Way work group shall have intra-group communications capability upon arriving at the work site, which can include the ability to pass and receive hand and other signals.

Each employee providing protection for a work group, and each lone worker, shall maintain immediate access to a working radio, which can be a portable radio capable of monitoring transmissions from train movements in the vicinity.

3.0 Section Reserved

4.0 Timetables

4.1 New Timetable

The moment a new timetable goes into effect, it will replace the previous one.

4.1.1 Notice of New Timetable

At least 24 hours before a new timetable goes into effect, notification will be made by general order. A track bulletin will also be issued at least 24 hours before the new timetable goes into effect and continue for 6 days after the effective date.

4.2 Special Instructions

Special instructions will replace any rule or regulation with which they conflict.

4.3 Timetable Characters

See also Glossary for an explanation of characters

Timetable characters are letters and symbols located in the timetable station column. These letters and symbols indicate the special conditions at specific locations (such as yard limits and manual interlockings). A timetable station column may also include information on the method of operation (such as CTC or TWC). Explanations of characters will be shown in the timetable.

5.0 Signals and Their Use

5.1 Signal Equipment

Employees who give or display signals must have the proper appliances. Appliances must be in good condition and ready to use.

5.2 Receiving and Giving Signals

5.2.1 Looking for Signals

To recognize and follow signals correctly, employees must:

- Always be on the lookout for signals.
- Comply with the intent of the signal.
- Not act on any signal that they do not understand or that may be intended for other trains or engines.

5.2.2 Signals Used by Employees

To give clear signals during the day and at night, employees must:

A. During the Day

1. Use the correct color of flags or lights.
2. Use day signals from sunrise to sunset.
3. Flagmen providing protection as outlined in Rule 6.19 (Flag Protection) must have a red flag and six red fusees.

B. At Night

1. Use the correct color of reflectorized flags or lights.
2. Use night signals from sunset to sunrise or when day signals cannot be seen clearly.
3. Flagmen providing protection as outlined in Rule 6.19 (Flag Protection) must have a white light and six red fusees.

Flags may be made from cloth, metal, or other suitable material.

5.3 Hand and Radio Signals

5.3.1 Hand Signals

The following diagram illustrates the hand signals for a train or engine to stop, proceed, or back up.

Description of Signal	Indication	Movement
1. Swung at a right angle to the track	STOP	
2. Raised and lowered vertically	PROCEED	
3. Swung slowly in a circle at a right angle to the track	BACK UP	

[Diagram A.]

Employees may use other hand signals only if all crew members understand the signals. When employees are not giving hand signals, they must not make any gestures or movements that might resemble a hand signal.

5.3.2 Giving Signals

Employees who give signals must:

- Make sure signals can be plainly seen.
- Give signals clearly so they can be understood.
- Give signals on the engineer's or operator's side of the track when practical.

5.3.3 Signal Disappearance

If a person disappears who is giving the signal to back or shove, or the light being used disappears, the backing or shoving movement must stop.

5.3.4 Signal to Stop

Any object waved violently by any person on or near the track is a signal to stop.

5.3.5 Explain Stop Signal

Except when switching, acknowledge hand signal to stop a train. When flagged, the engineer must obtain a thorough explanation from the flagman before proceeding.

5.3.6 Radio and Voice Communication

Employees may use radio and other means of voice communication to give information when using hand signals is not practical. Employees must make sure crew members:

- Know which moves will be made by radio communication.
- Understand that while using the radio, the machine operator will not accept any hand signals, unless they are “Stop” signals.

5.3.7 Radio Response

When radio communication is used to make movements, crew members must respond to specific instructions given for each movement. Radio communications for shoving movements must specify the direction and distance and must be acknowledged when distance specified is more than four cars.

Movement must stop within half of the distance specified unless additional instructions are received.

5.4 Flags for Temporary Track Conditions

See also 6.19 (Flag Protection) and MOM Chapter 23

5.4.1 Temporary Restrictions

Track bulletins, Mandatory directives, or general orders may restrict or stop train or track car movements because of track conditions, structures or men or equipment. Yellow flags are used to indicate temporary speed restrictions. Yellow-red flags are used to indicate when a train or track car may be required to stop. When flags are not displayed, that information will be included in the track bulletin, mandatory directive, or general order.

When a restriction spans adjoining subdivisions, separate temporary restrictions may be issued on each subdivision. Only one set of flags may be displayed in advance of the entire restriction in each direction.

When track conditions require protection, this protection must be established through the use of *M.O.M.* Rule 6.19 (Flag Protection) until track bulletin or mandatory directive can be issued.

Only flags or lights that meet ARRC standards will be used with temporary track conditions to restrict or stop the movement of trains or on-track equipment.

Track Bulletins and Mandatory Directives

When a condition exists that requires a train to be restricted, advise the train dispatcher of the location of the restriction by using mile posts and tenths of a mile. Unless approved electronic method is used, a request for a Track Bulletin Form B must be made by providing the required information to the maintenance technician before 1500 the day prior to planned work.

Speed Restrictions

See also 15.2 (Protection by Track Bulletin Form B)

Speed restrictions will only be given to trains by the train dispatcher, except as outlined in *M.O.M.* Rule 5.4.7 (Display of Red Flag or Light) or Rule 15.2 (Protection by Track Bulletin Form B).

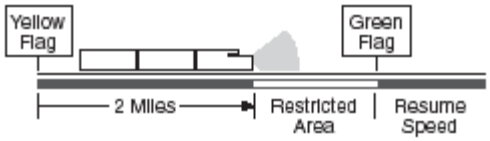
Comparing Track Bulletin Form B

Employees must verify with the train dispatcher that the Form B is in effect. Additionally, the employee must record time compared information on the Track Bulletin Form B. This form must be retained until the Track Bulletin Form B has been voided to the Train Dispatcher and track flags have been removed.

5.4.2 Display of Yellow Flag

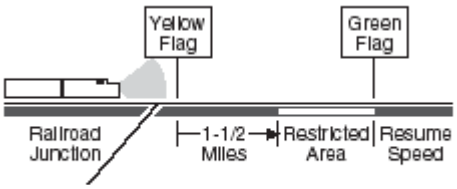
A. Restriction Specified in Writing

Two Miles Ahead of Restricted Area. Yellow flags warn trains to restrict movement because of track conditions or structures. To make sure train movement is restricted at the right location, employees must display a yellow flag 2 miles before the restricted area.



[*Diagram B.*]

Less Than 2 Miles Ahead of Restricted Area. When the restricted area is close to a terminal, junction, or another area, employees will display the yellow flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, mandatory directive, or general order.



[*Diagram C.*]

Once the Train Reaches the Restricted Area. The speed specified by mandatory directive, track bulletin, general order, or radio speed restriction must not be exceeded until the rear of the train clears the restricted area.

B. Restriction Not Specified in Writing

When a yellow flag is displayed and the restriction is not specified by a track bulletin, mandatory directive, or general order, once the train is 2 miles beyond the yellow flag, crew members must:

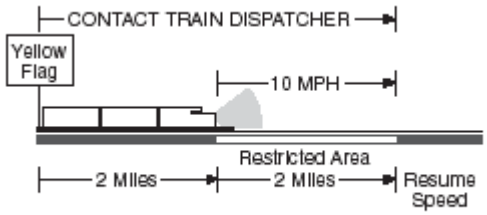
1. Continue moving the train but at a speed not exceeding 10 mph.

2. Resume speed only after the rear of the train has:

   a. Passed a green flag.

   or

   b. Traveled 4 miles beyond the yellow flag and the train dispatcher has verified that no track bulletin or mandatory directive is in effect specifying a temporary speed restriction at that location.



[*Diagram D.*]

Observe the following guidelines when using yellow flags to restrict train movement into areas that require a speed restriction.

- Notify the train dispatcher of the speed restriction as soon as possible and advise the dispatcher of the actual location of the yellow flag if it is displayed less than 2 miles from the restriction.
- Display yellow flags 2 miles in advance of the restricted area.
- When the restriction requires the yellow flag to be placed at a siding, a yellow flag must also be placed adjacent to the siding.
- When a restricted area is too close to a terminal or other area to display a yellow flag 2 miles in advance of the restriction, display the yellow flag as far in advance of the restricted area as possible.

5.4.3 Display of a Yellow-Red Flag

See also 15.2 (Protection by Track Bulletin Form B)

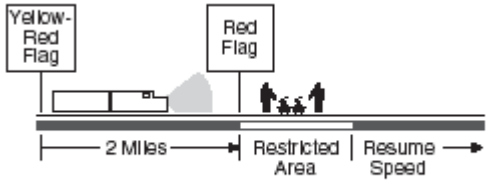
Maintenance of Way employees may display yellow-red flags from one hour before to one hour after a Track Bulletin Form B is in effect. During that time, trains may accept verbal permission from the Employee In Charge as outlined in *M.O.M.* Rule 15.2 (Protection by Track Bulletin Form B).

The display of yellow-red flags as described does not extend the authorized working time beyond the times listed on the Track Bulletin Form B.

A. Restriction Specified in Writing

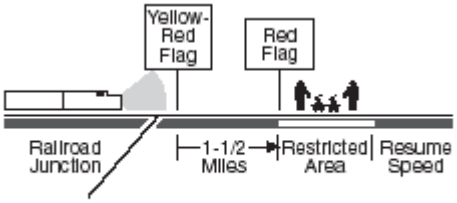
***Two Miles Ahead of Restricted Area*.** Yellow-red flags warn a train to be prepared to stop because of men or equipment. To make sure the train is prepared to stop at the

right location, employees must display a yellow-red flag 2 miles before the restricted area.



[*Diagram E.*]

Less Than 2 Miles Ahead of Restricted Area. When the restricted area is close to a terminal, junction, or another area, employees will display the yellow-red flag less than 2 miles before the restricted area. This information will also be included in the track bulletin, mandatory directive, or general order.



[*Diagram F.*]

B. Restriction Is Not Specified in Writing

When a yellow-red flag is displayed and the restriction is not specified by a track bulletin, mandatory directive, or general order, crew members must be prepared to stop short of a red flag 2 miles beyond the yellow-red flag. If a red flag is displayed, proceed as outlined in *M.O.M.* Rule 5.4.7 (Display of Red Flag or Red Light).

1. Move at restricted speed.

2. Increase speed only after:

   a. A crew member has received permission from the Employee In Charge.

      or

   b. The rear of the train has traveled 4 miles beyond the yellow-red flag, and the train dispatcher has verified that no track bulletin or mandatory directive protecting men or equipment is in effect at that location.

Green flags must not be placed to release a train from the requirements of a yellow-red flag.

Observe the following guidelines:

- Notify the train dispatcher of the restriction as soon as possible and advise the dispatcher of the actual location of the yellow-red flag if it is displayed less than 2 miles from the restriction.
- Display yellow-red flags 2 miles in advance of the restricted area.
- When the restriction requires the yellow-red flag to be placed at a siding, a yellow-red flag must also be placed adjacent to the siding.
- When a restricted area is too close to a terminal or other area to display a yellow-red flag 2 miles in advance of the restriction, and the restriction is in writing, display the yellow-red flag as far in advance of the restricted area as possible. If the restriction is not specified in writing, place a flagman far enough in advance to restrict the movement of trains.

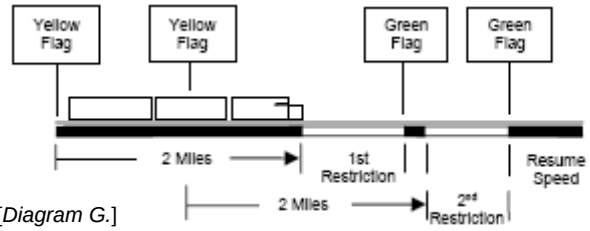
NOTE: Before the Employee In Charge of a yellow-red flag grants permission to a train to move at maximum authorized speed on a route not affected after encountering a yellow-red flag that is not specified in writing, the Employee In Charge must ensure that the leading wheels of the train are beyond the clearance point of the unrestricted track.

5.4.5 Display of Green Flag

A green flag indicates the end of a speed restriction. If a series of locations requires reduced speeds, the green flags could overlap yellow flags. When this is the case, employees must:

- Place a yellow flag before each speed restriction.
- Place a green flag at the end of each speed restriction.

Green flags must not be placed to release a train from the requirements of a yellow-red flag.



[*Diagram G.*]

Before placing or removing green flags, an employee must communicate with the train dispatcher to determine the existence of overlapping flags.

5.4.7 Display of Red Flag or Red Light

A red flag or red light is displayed where trains or on track equipment must stop. When approaching a red flag or red light, the train must stop short of the red flag or red light and not proceed unless the employee in charge gives instructions, including the milepost location of the red flag or red light. A crew member must attempt to contact the employee in charge to avoid delay, giving the location of the red flag or red light and the track being used. If instructions to proceed are received before the train or on track equipment stops, the train or on track equipment may pass the red flag or red light without stopping.

If track bulletin Form B is not in effect, instructions must include speed and distance. This speed must not be exceeded until the rear of the train has passed the specified distance from the red flag or red light, unless otherwise instructed by the employee in charge.

Displayed Between Rails. When a red flag or red light is displayed between the rails of a track, the train must stop and not proceed until the flag or light has been removed by an employee of the class that placed it.

5.4.8 Flag Location

See also 5.4.7 (Display of Red Flag or Red Light)

Flags will be displayed on all main tracks and sidings leading to the track affected.

Flags or red lights must be displayed to the right of the track as viewed from an approaching train. In multiple main track territory or where sidings are adjacent to main track(s), they will be placed on the field side of outside tracks. Red flags or red lights may be displayed between the rails as outlined in *M.O.M.* Rule 5.4.7

(Display of Red Flag or Red Light). Flags or red lights will be placed in this manner unless otherwise specified by track bulletin, mandatory directive, special instructions, or general order.

When flags are displayed beyond the first rail of an adjacent track, the flags will not apply to the track on which the train is moving.

When removing track flags, the most restrictive flag should be removed first. For example, red flag than yellow-red flag or yellow flag then green flag.

5.5 Permanent Speed Signs

5.5.1 Permanent Speed Signs

Permanent speed restriction signs will be placed in advance of permanent speed restrictions. Speeds will be shown in the timetable or on general order.

Speed restrictions covered by a general order will be protected by permanent speed restriction signs.

Resume Speed Signs

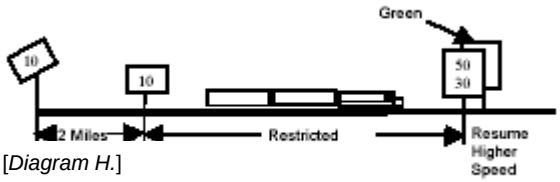
A permanent resume speed sign or a speed sign showing a higher speed will be placed at the end of each restriction.

Crew members must not exceed the speed shown on each permanent speed restriction sign until the rear of the train:

- Has passed a permanent resume speed sign or a sign showing a higher speed.

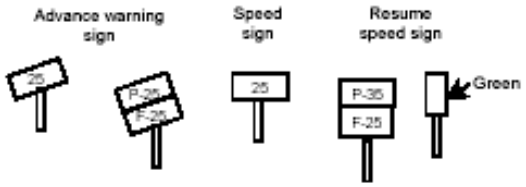
  or

- Has cleared the limits of the restriction.



[*Diagram H.*]

5.5.2 Speed Limit Signs



[*Diagram I.*]

Speeds preceded by the letter P apply to passenger trains.

Speeds precede by the letter F apply to freight trains.

Speeds not preceded by a letter apply to all trains.

Numbers

Numbers on the face of these signs indicate the highest speed permitted over the limits of the restriction.

Two Sets of Numbers

When two sets of numbers are shown, the greater number governs trains consisting entirely of passenger equipment. The lesser number governs all other trains.

Advance Warning Signs

An advance warning sign must be placed ½ mile before the location where the lower speed is in effect.

Speed Signs

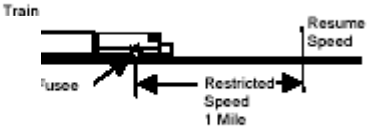
Speed signs must be placed at the location where the lower speed is in effect.

Resume Speed Signs

Resume speed signs must be placed at the location where the lower speed is no longer in effect.

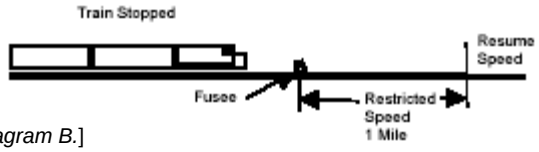
5.6 Unattended Fusee

If a train approaches an unattended fusee burning on or near its track, the train must stop consistent with good train handling



[Diagram A.]

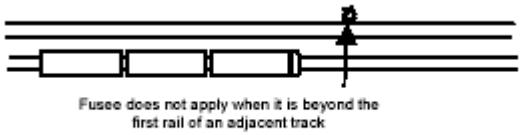
A train moving at restricted speed must stop before passing the fusee.



[*Diagram B.*]

After stopping, the train must proceed at restricted speed for 1 mile beyond the fusee.

If the unattended burning fusee is beyond the first rail of an adjacent track, the fusee does not apply to the track on which the train is moving.



[*Diagram L.*]

Do not place fusees where they may cause fires.

A fusee is considered unattended when it is on the ground.

5.8 Bell and Whistle Signals

5.8.1 Ringing Engine Bell

Ring the engine bell under any of the following conditions:

- Before moving, except when making momentary stop and start switching movements.
- As a warning signal anytime it is necessary.
- When approaching men or equipment on or near the track.
- While passing passenger stations.
- While switching in buildings and shop areas.
- Approaching public crossings at grade with the engine in front start signal at the crossing sign. If no sign, or if movement begins between sign and crossing, start signal soon enough before crossing to provide warning. Continue ringing bell until the crossing is occupied.

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.

Other forms of communications may be used in place of whistle signals, except signals (1), (7), and (8).

See following chart.

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

Sound	Indication
[1] Succession of short sounds	Use when persons or livestock are on the track at other than road crossings at grade. In addition, use to warn railroad employees when an emergency exists, such as a derailment. When crews on other trains hear this signal, they must stop until it is safe to proceed.
[2] —	When stopped: air brakes are applied, pressure equalized.
[3] — —	Release brakes. Proceed.
[4] o o	Acknowledgment of any signal not otherwise provided for.
[5] o o o	When stopped: back up. Acknowledgment of hand signal to back up.
[6] o o o o	Request for signal to be given or repeated if not understood.
[7] — — o —	When approaching public crossings at grade with the engine in front, sound signal as follows: A. At speeds in excess of 45 MPH, start signal at or about the crossing sign but not more than ¼ mile before the crossing. B. At speeds of 45 MPH or less, start signal at least 15 seconds, but not more than 20 seconds, before entering the crossing. C. If no crossing sign start signal at least 15 seconds, but not more than 20

		seconds before entering crossing but not more than ¼ mile before the crossing.
	D.	If movement starts less than ¼ mile from a crossing, signal may be sounded less than 15 seconds before the crossing when it is clearly seen traffic is not approaching the crossing, traffic is not stopped at the crossing or when crossing gates are fully lowered. Prolong or repeat signal until the engine completely occupies the crossing(s).
[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.

5.8.4 Whistle Quiet Zone

MOW on track equipment will comply with the required whistle signals without regard to quiet zones.

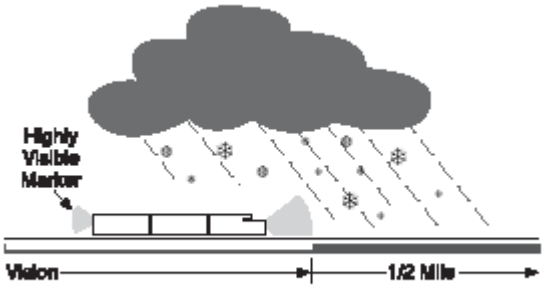
5.10 Markers

A marker of the prescribed type must be displayed on the trailing end of the rear car to indicate the rear of the train.

5.10.1 Highly Visible Markers

Display a highly visible marker at the rear of every train as follows:

- From 1 hour before sunset to 1 hour after sunrise.
- When weather conditions restrict visibility to less than ½ mile.



[*Diagram M.*]

A marker equipped with a functioning photoelectric cell will automatically illuminate at the appropriate time.

When an engine is operating without cars or is at the rear of the train, the trailing headlight illuminated on dim may be used as a marker.

5.10.2 Alternative Markers

Display a reflector, red flag, or light fixture at the rear of the train as the marker when any of the following conditions exists:

- A highly visible marker is not required.
- A defective car must be placed at the rear for movement to a repair point.
- The rear portion of the train is disabled and cannot be moved, and a highly visible marker cannot be displayed on the rear of the portion to be moved.

  or

- The highly visible marker becomes inoperative en route. If this occurs, notify the train dispatcher and move the train to the next forward location where the highly visible marker can be repaired or replaced.

5.11 Engine Identifying Number

Trains will be identified by initials and engine number, adding the direction when required. When an engine of another company is used, the initials of the company will precede the engine number. When an engine consists of more than one unit or when two or more engines are coupled, the number of one unit only will be illuminated as the identifying number. When practical, use the leading unit.

5.12 Protection of Occupied Outfit Cars

This rule outlines the requirements for protecting occupied outfit cars. As used in this rule, the following definitions apply:

Outfit Car. Any on-track vehicle, including outfit, camp, or bunk car or modular home mounted on a flat car to house railroad employees. Such equipment is not considered an outfit car when placed in a wreck train.

Effective Locking Device. When used in relation to a manually operated switch or a derail, a lock that can be locked or unlocked only by the craft or group of workmen applying the lock.

Rolling Equipment. Engines, cars, and one or more engines coupled to one or more cars.

Switch Providing Direct Access. A switch that if used by rolling equipment could permit the rolling equipment to couple to the equipment being protected.

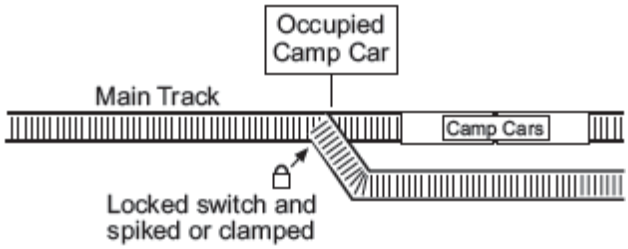
Warning Signal. A white sign that reads “OCCUPIED CAMP CAR” in black lettering. At night, an illuminated white light must also be used.

When occupied outfit cars are placed on a track, the employee in charge of the outfit car occupants (or a designated representative) must provide or request protection using one of the following methods:

A. On a Main Track

One of these two methods or a combination of these methods must be provided:

1. Each manually operated switch that provides direct access to that portion of the main track where occupied outfit cars are located must be lined against movement to that track, secured with an effective locking device, and spiked or clamped. Warning signals must be displayed at or near each switch.



[Diagram A.]

2. If remote control switches provide direct access to the main track where occupied outfit cars are located, the dispatcher will line the switch against movement to that track and apply blocking devices to the control machine to prevent movement onto that track. The dispatcher must complete the above tasks before informing the employee requesting protection that protection is provided.

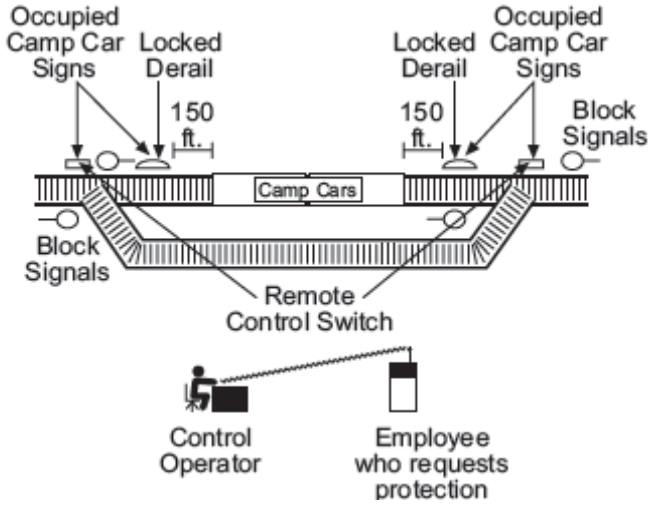
Blocking devices must not be removed until the employee in charge of the outfit car occupants (or a designated representative) informs the dispatcher that protection is no longer required.

a. Warning signals must be displayed at or near each remote control switch.

b. In addition, a derail capable of restricting access to the portion of main track where occupied outfit cars are located must be placed at least 150 feet from the end of the occupied outfit cars. The derail must be locked in derailing position with an effective locking device. Warning signals must be displayed at each derail.

c. The dispatcher must maintain for 15 days a written record of each notification. The record must contain the following information:

- Name and craft of employee requesting protection.
- Identification of track protected.
- Date and time employee in charge of outfit car occupants is notified that protection was provided.
- Date, time, name, and craft of employee authorizing removal of protection.

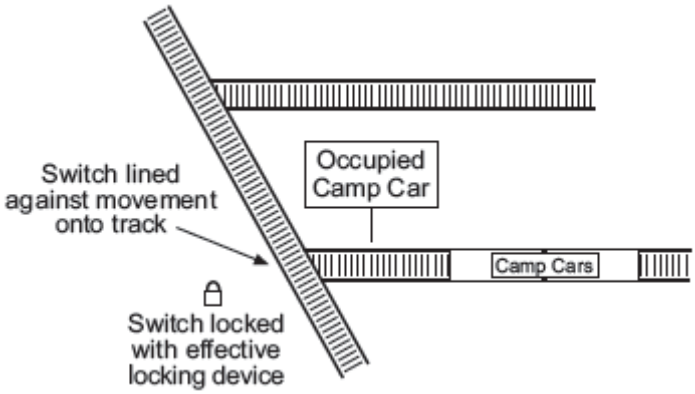


[Diagram B.]

B. On Other Than a Main Track

One of these three methods of protection or a combination of these methods must be provided:

1. Each manually operated switch that provides direct access to the track where occupied outfit cars are located must be lined against movement to that track and secured with an effective locking device. Warning signals must be displayed at or near each switch.

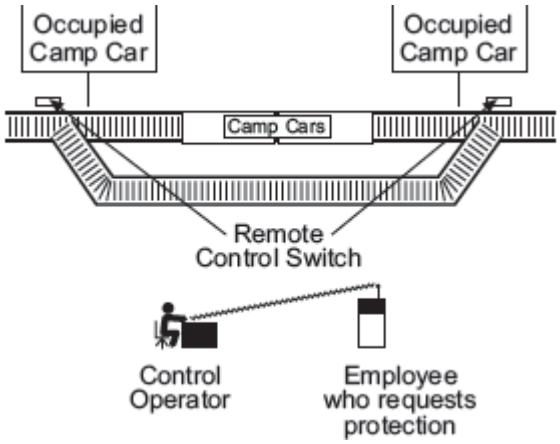


[Diagram C.]

2. If remote control switches provide direct access to the track where occupied outfit cars are located, the dispatcher will line the switch against movement to that track and apply blocking devices to the control machine to prevent movement onto that track. The dispatcher must complete the above tasks before informing the employee requesting protection that protection is provided.

Blocking devices must not be removed until the employee in charge of the outfit car occupants (or a designated representative) informs the dispatcher that protection is no longer required.

a. Warning signals must be displayed at or near each remote control switch.



[Diagram D.]

b. The control operator must maintain for 15 days a written record of each notification. The record must contain the following information:

•Name and craft of employee requesting protection.

•Identification of track protected.

•Date and time employee in charge of outfit car occupants is notified that protection was provided.

•Date, time, name, and craft of employee authorizing removal of protection.

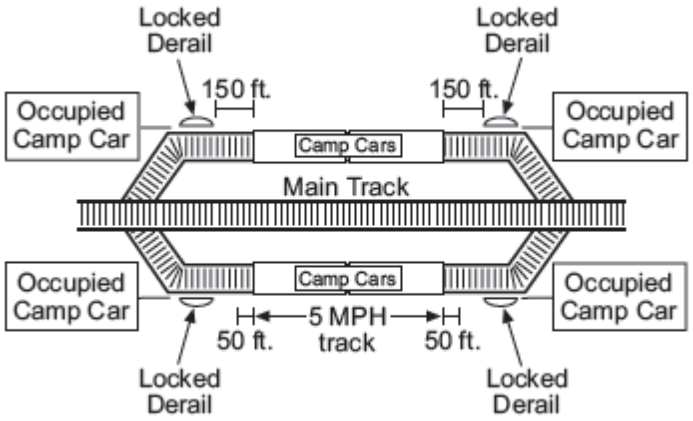
3. A derail capable of restricting access to that portion of the track where occupied outfit cars are located will fulfill the requirements of protection when the derail is:

a. Positioned at least 150 feet from the end of the occupied outfit cars.

or

b. Positioned at least 50 feet from the end of the occupied outfit cars where the maximum speed on that track is 5 MPH.

Warning signals must be displayed at each derail.



[Diagram E.]

C. Warning Signals

When a warning signal is displayed to protect occupied outfit cars:

1. Occupied outfit cars must not be coupled to or moved.

2. Rolling equipment must not pass the warning signal.

3. Rolling equipment must not be placed on the same track in a manner that would block or reduce the crew's view of the warning signal.

Responsibilities of Supervisors

The supervisor in charge of occupied outfit cars must follow these requirements to protect the outfit cars:

1. When possible, do not place outfit cars next to or in buildings or structures.

2. Avoid placing outfit cars near:

    - Placarded cars
    - Compressed gas storage facilities
    - Flammable liquid storage facilities

3. Make sure that outfit cars are adequately separated for fire protection.

4. If possible, have cars placed on a track that is not adjacent to a main track or heavily used track.

5. Arrange for occupants to enter and leave outfit cars from the side opposite main or heavily used tracks if:

    - The outfit cars are set out on tracks that parallel the main track or heavily used track.

    and

    - Clearance is less than 25 feet.

6. Make sure that the steps of outfit cars are maintained in safe condition and are securely fastened.

7. Notify dispatcher when occupied outfit cars are placed in service less than 25 feet from an adjacent track.

5.13 Blue Signal Protection of Workmen

This rule outlines the requirements for protecting railroad workmen who are inspecting, testing, repairing, and servicing rolling equipment. In particular, because these tasks require the workmen to work on, under, or between rolling equipment, workmen are exposed to potential injury from moving equipment.

Workmen. Railroad employees assigned to inspect, test, repair, or service railroad **rolling equipment** or components, including brake systems. Train and yard crews are excluded, except when they perform

the above work on rolling equipment not part of the train or yard movement they are handling or will handle.

• "Servicing" does not include supplying cabooses, engines, or passenger cars with items such as ice, drinking water, tools, sanitary supplies, stationery, or flagging equipment.

• "Testing" does not include an employee making visual observations while on or along side a caboose, engine, or passenger car. Also, testing does not include repositioning the activation switch or covering the photoelectric cell of the marker when the rear of the train is on the controlled track. The employee inspecting the marker must contact the employee controlling the engine to confirm that the train will remain secure against movement until the inspection is complete.

Group of Workmen. Two or more workmen of the same or different crafts who work as a unit under a common authority and communicate with each other while working.

Common Authority. A process that allows personnel from a different department to join a work group, if authorized to do so, by the employee in charge of the work group (supervisor or work group leader). The employee in charge is responsible for notifying all affected personnel in the work group when another person joins the work group. When working under a common authority, blue signal protection may be installed or removed **only after notifying** all affected employees. Employees must also be in the clear before installing or removing blue signal protection.

Controlled Track. For the purpose of this rule only; a track that must not be occupied without authority from the Dispatcher or Control Operator.

Roadway Worker means 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.

Blue Signal for Workmen is <u>not</u> to be used to provide Roadway Worker Protection to Roadway Workers.

Rolling Equipment. Engines, cars, and one or more engines coupled to one or more cars.

Blue Signal. During the day, a clearly distinguishable blue flag or light, and at night, a blue light. The blue light may be steady or flashing.
The blue signal does not need to be lighted when it is attached to the operating controls of an engine and the inside of the engine cab area is lighted enough to make the blue signal clearly distinguishable.

Effective Locking Device. When used in relation to a manually operated switch or a derail, a lock that can be locked or unlocked only by the craft or group of workmen applying the lock.

Car Shop Repair Area. One or more tracks within an area where rolling equipment testing, servicing, repairing, inspecting, or rebuilding is controlled exclusively by mechanical department personnel.

Engine Servicing Area. One or more tracks within an area where engine testing, servicing, repairing, inspecting, or rebuilding is controlled exclusively by mechanical department personnel.

Switch Providing Direct Access. A switch that if used by rolling equipment could permit the rolling equipment to couple to the equipment being protected.

A. What a Blue Signal Signifies
A blue signal signifies that workmen are on, under, or between rolling equipment and requires that:

1. Rolling equipment must not be coupled to or moved, except as provided in "**Movement in Engine Servicing Area**" and "**Movement in Car Shop Repair Area**" of this rule.

2. Rolling equipment must not pass a blue signal on a track protected by the signal.

3. Other rolling equipment must not be placed on the same track so as to block or reduce the view of the blue signal.

a. However, rolling equipment may be placed on the same track when it is placed on designated engine servicing area tracks or car shop repair area tracks, or when a derail divides a track into separate working areas.

4. Rolling equipment must not enter a track when a blue signal is displayed at the entrance to the
track. Blue signals or remote control blue signals must be displayed for each craft or group of workmen who will work on, under, or between rolling equipment.

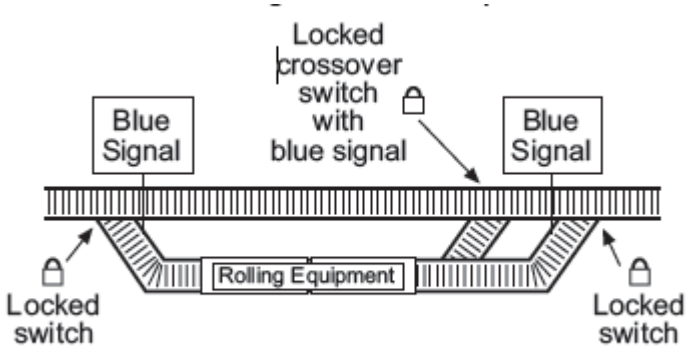
Protection Removed. Blue signals may be removed only by the craft or group who placed them.
Remote control display may be discontinued when directed by the craft or group that requested
the protection. When blue signal protection has been removed from one entrance of a double ended track or from either end of rolling equipment on a controlled track, that track is no longer under blue signal protection.

B. How to Provide Protection. When workmen are on, under, or between rolling equipment and exposed to potential injury, protection must be provided as follows:

On a Main Track. A blue signal must be displayed at each end of the rolling equipment.

On Other than a Main Track. One of these three methods of protection or a combination of these methods must be provided:

1. Each manually operated switch, including any facing point crossover switch that provides direct access must be lined against movement onto the track and secured by an effective locking device. A blue signal must be placed at or near each such switch.

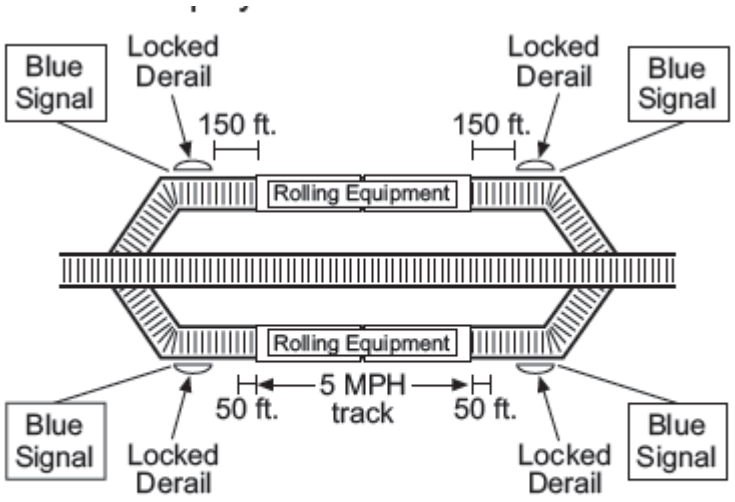


[Diagram A.]

2. A derail capable of restricting access to the track where work will occur must be locked in derailing position with an effective locking device and:
a. Positioned at least 150 feet from the rolling equipment to be protected.

or

b. Positioned at least 50 feet from the end of rolling equipment on a designated engine servicing
track or car shop repair track where speed is limited to not more than 5 MPH. A blue signal must be displayed at each derail.



[Diagram B.]

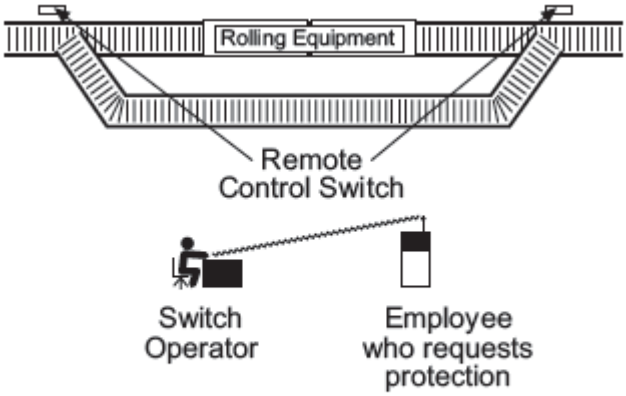
3. Where remote control switches provide direct access, the employee in charge of the workmen must tell the switch operator what work will be done. The switch operator must then:

a. Inform the employee in charge of the workmen that the switches have been lined against movement onto the track and devices controlling the switches have been secured.

b. Not remove the locking devices unless the employee in charge of the workmen says it is safe to do so.

c. Maintain for 15 days a written record of each notification that includes:

- Name and craft of the employee in charge of the workmen requesting protection.
- Identification of track involved.
- Date and time the employee in charge of workmen is notified that protection was provided.
- Date, time, name, and craft of the employee in charge of workmen who authorized removal of the protection.



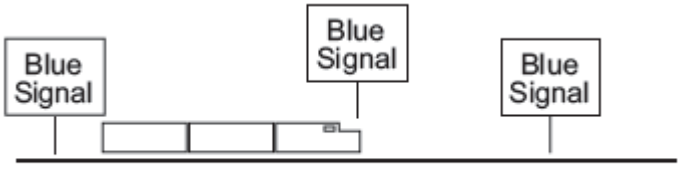
[Diagram C.]

C. Blue Signal Readily Visible to Engineer

In addition to providing protection as required in **"On a Main Track"** and **"On Other than a Main Track,"** when workmen are on, under, or between an engine or rolling equipment coupled to an engine:

1. A blue signal must be attached to the controlling engine and be visible to the engineer or employee controlling the engine.

2. Engines equipped for remote control operations must be in manual.
3. The engine must not be moved.



[Diagram D.]

D. Protection for Workmen Inspecting Markers

Blue signal protection must be provided for workmen when they are:
1. Replacing, repositioning, or repairing a marker, and the rear of the train is on any track.

or

2. Inspecting a marker by repositioning the activation switch or covering the photoelectric cell, and the rear of the train is on other than a controlled track.

E. Protection for Emergency Repair Work on a Controlled Track

If a blue signal is not available for employees performing emergency repairs on, under, or between an engine or rolling equipment coupled to an engine on a controlled track, the employee controlling the engine must be notified and appropriate measures taken to provide protection for the employees.

F. Movement in Engine Servicing Area

An engine must not enter a designated engine servicing area until the blue signal protection is removed from the entrance. The engine must stop short of coupling to another engine.

An engine must not leave a designated engine servicing area unless the blue signal is removed from the engine and the track in the direction of movement.

Blue signal protection removed to let engines enter or leave the engine servicing area must be restored immediately after the engine enters or clears the area.

An engine protected by blue signals may be moved on a designated engine servicing area track
when:

1. An authorized employee operates the engine under the direction of the employee in charge of workmen.
2. The blue signal has been removed from the controlling engine to be repositioned.
3. Workmen have been warned of the movement.

G. Movement in Car Shop Repair Area

When rolling equipment on car shop repair tracks is protected by blue signals, a car mover may reposition the equipment if:

1. Workmen have been warned of the movement.
2. An authorized employee operates the car mover under the direction of the employee in charge of workmen.

5.14 Signs Protecting Equipment

When a sign reading:

STOP—TANK CAR CONNECTED
STOP—MEN WORKING
EMPLOYEES WORKING
SERVICE CONNECTIONS

or a similar warning is displayed on a track or car, the car must not be coupled to or moved. Other equipment must not be placed on the same track in a manner that would block or reduce the view of the sign.

5.14.1 Maintenance of Way Inoperable Locomotive Tag

The sole purpose of the Maintenance of Way Inoperable Locomotive Tag is to provide Roadway Worker Protection against movement of unattended locomotives within their working limits. The Maintenance of Way Inoperable Locomotive Tag is to be used on non-controlled track only. Use for other purposes is prohibited.

A. To render unattended locomotive units, Diesel Multiple Units (DMU) or cab cars within Maintenance of Way Working Limits inoperable, a Maintenance of Way Worker will affix a tag of the prescribed size and appearance to the control stand of each unattended locomotive unit, DMU or cab car within working limits. This tag will be known as Maintenance of Way Inoperable Locomotive Tag and shall display the name of the person who affixed the tag and the date on which the tag was affixed.
The tag must be displayed on or near the gauges, on the control stand, of each locomotive unit, DMU or cab car within the working limits.

B. No locomotive unit, DMU or cab car, including any railcar attached, shall be moved or have brakes released until the tag is removed by the person who affixed it.

C. Each employee providing Roadway Worker Protection for himself or a workgroup must affix his own Maintenance of Way Inoperable Locomotive Tag to each unattended locomotive unit, DMU or cab car within or attached to cars within the working limits.

D. No locomotive unit, DMU or cab car within the working limits will be considered inoperable until **all** locomotives units, DMUs, or cab cars within the working limits are tagged.

E. A written record of each locomotive unit, DMU, or cab car tagged will be maintained by the person affixing a Maintenance of Way Inoperable Locomotive Tag, until the tag is removed.

E. All Maintenance of Way Inoperable Locomotive Tags affixed by an employee providing protection must be removed when:

1. Roadway Worker Protection is no longer required.

   or

2. The employee is relieved of his duty to provide Roadway Worker Protection. If Roadway Worker Protection is still required after the employee who originally affixed the tag is relieved of duty, the employee relieving the departing employee shall affix a new Maintenance of Way Inoperable Locomotive Tag(s) in accordance with this rule.

5.15 Improperly Displayed Signals

If a signal is improperly displayed, or a signal, flag, or sign is absent from the place it is usually shown, regard the signal as showing the most restrictive indication it can give.

Promptly report improperly displayed signals or absent fixed signals, flags, or signs to the train dispatcher.

6.0 Movement of Trains, Engines and Track Cars

6.1 Repeat Instructions

An employee who verbally receives instructions or information about train or engine movements must repeat them.

6.2 Initiating Movement

Before initiating movement on a controlled track, a crew member must:

- Receive a track warrant.

  or

- Determine from the train dispatcher if any track bulletins are needed.

6.2.1 Train Location

Trains and Maintenance of Way employees who receive authority to occupy controlled track after the arrival of a train or to follow a train must ascertain the train's location by one of the following methods:

- Direct communication with a crew member of the train.
- Receiving information about the train from the train dispatcher or control operator.

6.3 Controlled Track Authorization

Do not occupy controlled track unless authorized by one of the following:

- Rule 6.13 (Yard Limits)
- Rule 6.14 (Restricted Limits)
- Rule 9.15 (Track Permits)
- Rule 10.3 (Authority to Enter CTC Limits)
- Rule 14.1 (Authority to Enter TWC Limits)
- Rule 15.4 (Protection when tracks removed from service)
- Rule 20.1 (Foul Time)
- Special Instructions or General Order

Written Authorities that are no longer in effect must be retained until the end of the tour of duty, unless otherwise instructed by the dispatcher.

Joint Authority

Joint Authority: Occupying the controlled track by more than one workgroup where each work group has been issued separate authority by the dispatcher.

When a train or employee receives authority joint with employee(s), the train or employee must not occupy the overlapping limits until:

- Working limits are described and permission is received to enter the overlapping limits from the employee(s) listed on the authority.

or

- Advice is received from the train dispatcher or control operator that the employee(s) have reported clear of the limits.

Shared Authority

Shared Authority:

- Occupancy of controlled track by an employee or work group where the authority has been granted by the train dispatcher to another EIC.

- Authority that has been issued by the dispatcher to an EIC and is used by more than one work group.

Authority Rules

When requesting authority or establishing protection, the Employee In Charge must ensure that equipment and employees do not occupy or foul the track until authority is received or protection is established. The employee requesting authority must be qualified on these rules and must tell the train dispatcher exactly where the controlled track will be entered. When requesting new or additional authority the EIC must report, by milepost, their current location prior to copying that authority.

Additionally, an employee receiving an authority, when the work group consists of two or more employees, at least one other employee (rules qualified, if available) in that work group must read, understand and initial the authority prior to equipment or employees fouling the track. However, all employees must understand what OTS is in effect.

Authority "OK" Time and Shared Authorities Requirements

Maintenance of way employees, as part of their briefing with the train dispatcher during authority release or replacement – in addition to providing switch information – must advise the train dispatcher of the status of any employees that shared or are sharing their authority when releasing or replacing that authority. One of these three options must be used:

- This authority was not shared.
- Briefing has been held with employees sharing this authority.
- Employees who shared this authority are clear of the limits.

Use the following format when releasing, or receiving replacement, authority:

> Vehicle (if applicable) with Employee (name); either: no switches were handled in the authority being released, or: confirmation of switches handled (naming the switch(es) handled), job briefing and SPAF initialed, one of the three shared authority options listed above, and specify the limits being released or repeat the replacement authority limits.

For example:

> "Rental 12345 with employee JJ Smith, no switches were handled in the authority being released, briefing has been held with employees sharing this authority, I am releasing (stating limits being released)."
>
> "LC 106 with employee SS Jones, NSS Spencer was handled and returned to normal, job briefing held and SPAF initialed, this authority was not shared, I am authorized to work between (stating authority limits)."

6.3.1 Train Coordination

> **Train Coordination:** Working limits established by a roadway worker through the use of a train's authority on a main track or other track where specific authority is required from a control operator or train dispatcher.

Train Coordination provides for men or equipment to use a train's authority to establish working limits. The employee must contact the train's engineer to request use of Train Coordination. To establish working limits:

- The train must be in view and stopped.
- The employee in charge of working limits will communicate with the engineer who will notify other crew members that working limits are to be established.
- The engineer will make movements only as permitted by the employee in charge until the working limits have been released to the engineer.

- The train will not release its authority within the limits until those working limits have been released by the employee in charge.

Establish Working Limits

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

A. TWC Territory

1. With a train having authority to move either direction that is not joint.

or

2. With a train having authority to move in one direction only, working limits must not be established:

   - Behind the train.

   - More than one block in advance of the train or beyond any location that a train or engine could enter the track between the Employee In Charge of the working limits and the train.

B. CTC Territory

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

or

2. With a train having authority to move in one direction only, working limits must not be established:

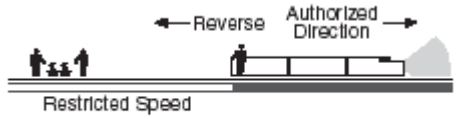
   - Behind the train.

   - More than one block in advance of the train or beyond any location that a train or engine could enter the track between the Employee In Charge of the working limits and the train.

6.4 Reverse Movements

Make reverse movements on any controlled track at restricted speed and only within the limits a train has authority to occupy the track.

Make reverse movements on any main track, controlled siding, or on any track where a block system is in effect at restricted speed and only within the limits a train has authority to occupy the track.



[Diagram A.]

6.4.1 Permission for Reverse Movements

When a train or engine is advised that working limits have been established behind their train, obtain permission from the Employee In Charge to make any reverse movements, including within the same signaled block.

6.5 Shoving Movements

Equipment must not be shoved until the operator and the employee protecting the movement have completed a job briefing concerning how protection will be provided. Employee must be in position, provide visual protection of the equipment being shoved and must not engage in unrelated tasks while providing protection.

Equipment must not be shoved until it is visually determined that:

- Portion of track to be used is clear of equipment or conflicting movements.
- The track will remain clear to the location where movement will be stopped.
- Switches and derails are properly lined.

Employees may be relieved from providing visual protection when:

- Local instructions specify tracks involved and how shoving movement will be protected, such as shove light or monitored cameras.
- A track has been pulled and an equivalent amount or less of cars or equipment will be immediately shoved back into that track and that track has remained clear to the location where the movement will be stopped.
- Immediately prior to shoving, a movement is made on the adjacent track providing the employee the ability to visually determine the track to be shoved is clear and route is properly lined.
- Authority on main track or controlled siding allows for movement in direction of shove, provided route is properly lined, road crossings will not be fouled and movement at restricted speed is not required.

or

- Picking up a crew member in accordance with Rule 6.6 (Picking Up Crew Member).

Shoving movements over road crossings must be made in accordance with Rule 6.32.1 (Providing Warning Over Road Crossings).

Speeds when Shoving

When cars are shoved on a main track or controlled siding in the direction authorized, movement must not exceed:

- 20 MPH for freight trains.
- 30 MPH for passenger trains.
- Maximum timetable speed for snow service unless the employee in charge authorizes a higher speed.

6.5.1 Remote Control Movements

Employees must be aware of all locations where remote control operations are in effect. Employees must not enter or foul remote control zones without communicating with the remote control operator or verifying with the terminal supervisor that remote control zones are not active.

6.6 Picking Up Crew Member

A train may back up on a controlled track to pick up a crew member under the following conditions:

1. The train dispatcher gives permission to make the movement and verifies the following:

   a. Another authority is not in effect within the same or overlapping limits unless conflicting movements are protected.

   b. A Track Bulletin Form B is not in effect within the same or overlapping limits.

   c. A controlled track is not removed from service by a track bulletin within the same or overlapping limits.

2. Movement is limited to the train's authority.

3. Movement does not enter or foul a private or public crossing except as provided by Rule 6.32.1 (Providing Warning Over Road Crossings).

4. Movement will not be made into or within yard limits, restricted limits, interlocking limits, drawbridges, railroad crossings at grade, or Track Bulletin Form B limits.

5. Movement does not exceed the train's length.

When movement is made under these conditions, restricted speed does not apply.

6.11 Mandatory Directive

Mandatory directives are written, printed, or displayed authorities or speed restrictions issued by the train dispatcher or control operator. Mandatory directives are:

- Track warrants.
- Track bulletins.
- TWC authority.
- CTC authority.
- Track permits.
- Radio speed restrictions.

A mandatory directive restricting a train's movement will not be issued near a point where the restriction applies until the engineer or conductor confirms that the train can comply with the restriction.

Indicate "VOID" on mandatory directive form when:

- Employee reports clear of authority limits,

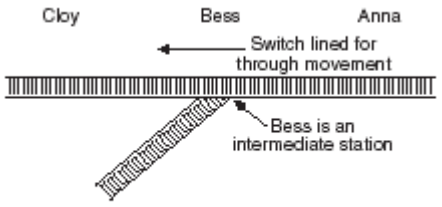
or

- Mandatory directive is made void

Crew must retain mandatory directives for continuous tour of duty.

6.17 Switches at Junctions

The normal position for a junction switch is for through movement on the main track where the junction is an intermediate station.



[*Diagram D.*]

6.19 Flag Protection

When flag protection is provided to protect on-track equipment, employees or track conditions, flaggers must immediately go at least the distance prescribed by the special instructions for that territory and protect all possible access to the restriction. When reaching the correct distance, the flagger must remain there until he or she stops a train or is recalled.

Flaggers must:

- Be rules qualified.
- Be sent in both directions to provide protection, until released.

- Never rely on others for information about approaching trains.
- Never estimate the nature, speed or probable time of the next approaching train.
- Each individual flagger should carry a minimum of:
  - Six red fusees.
  - By day, a red flag.
  - By night, a white light.
- If only one flagger is available, the flagger must immediately provide protection in the direction from which the first train is expected. Then they should provide protection in the opposite direction.

6.20 Protection of Equipment Left on Controlled Track

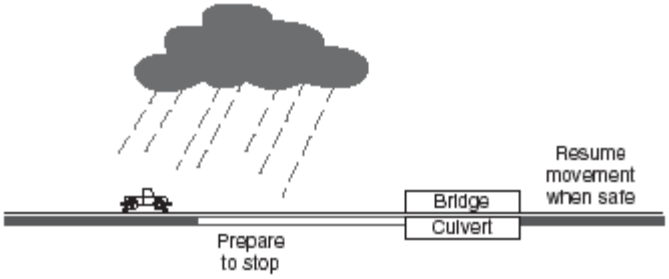
Crews that leave equipment on controlled track do not need to provide flag protection for the equipment if the train dispatcher gives verbal relief. The train dispatcher may request a crew to report clear of their authority and leave equipment on a controlled track. Crews that leave equipment on a controlled track do not need to provide protection for the equipment if the train dispatcher provides relief. The train dispatcher must provide protection for the equipment.

The train dispatcher must know that protection is provided. All crews that use the controlled track at that point must be notified of the equipment location and must move at restricted speed when approaching the location.

6.21 Precautions Against Unusual Conditions

Protect on track equipment against any known condition that may interfere with their safety. Advise the train dispatcher of such conditions by the first available means of communications.

In unusually heavy rain, storm, or high water, on-track equipment must approach bridges, culverts, and other potentially hazardous points prepared to stop. If they cannot proceed safely, they must stop until it is safe to resume movement.



[*Diagram E.*]

6.21.1 Protecting Against Defects

See also 23.0 (“Track Flagging”)

Follow these precautions to protect against defects:

1. Promptly provide protection according to the rules when a track, bridge, culvert, other structure, or equipment:

   - Is found unsafe or dangerous.
   - Will be made unsafe for the passage of trains or equipment at usual speed.

     or

   - Is found in a condition that will endanger persons or property.

2. If defects are found, promptly report the following information to the train dispatcher and the Engineering Department:

   - Type of defects
   - Location of defects
   - Type of protection provided
   - Material and tools needed for repairs
   - Estimated time to make repairs

6.21.2 Water Above Rail

Do not operate on track equipment over tracks submerged in water until the track has been inspected and verified as safe.

Operate Locomotive Cranes at 5 mph or less when water is above the top of the rail. If water is more than 3 inches above the top of the rail, a Mechanical Department supervisor must authorize the movement.

6.26 Use of Multiple Main Tracks

Use of multiple main tracks will be governed by special instructions.

6.27 Movement at 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 Track Cars are required to move at restricted speed, they must not exceed 20 mph.

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

6.28 Movement on Other Than Controlled Track

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

- Train
- Engine
- Railroad car
- Men or equipment fouling the track
- Stop signal

or

- Derail or switch lined improperly

6.29 Inspecting Trains

6.29.1 Inspecting Passing Trains

Except as provided in *M.O.M. Rule 21.5 (On Track Safety on Adjacent Tracks or Adjacent Controlled Tracks)*, employees must inspect passing trains. If they detect any of the following conditions, they must notify crew members on the passing train by any available means:

- Overheated journals
- Sticking brakes
- Sliding wheels
- Wheels not properly positioned on the rail
- Dragging equipment
- Insecure contents
- Signs of smoke or fire
- Headlight or marker improperly displayed
- Any other dangerous condition

Inspect passing trains from both sides if there are enough employees available and if conditions permit. However, keep clear of other tracks on which train or other movements may be made.

When possible, advise crew members of the condition of their train.

When trains or engines are passing, remain clear of tracks to prevent being struck by objects that may fall or protrude from the train.

NOTE: Take articles that fall from cars to a secure area and report them to the supervisor and/or train dispatcher.

6.32 Road Crossings

6.32.1 Providing Warning Over Road Crossings

When cars are shoved, kicked or a gravity switch move is made over road crossings at grade, an employee must be on the ground at the crossing to provide warning until crossing is occupied. Make any movement over the crossing only on the employee's signal.

Warning is not required when crossing is equipped with:

- Gates that are fully lowered.

or

Flashing lights or passive warning devices when it is clearly seen that no traffic is approaching or stopped at the crossing. Shoving movements must not exceed 15 MPH over crossing until occupied.

6.32.2 Automatic Warning Devices

Under any of the following conditions, a movement must not foul a crossing equipped with automatic warning devices until the device has been operating long enough to provide warning and the crossing gates, if equipped, are fully lowered:

- Movement has stopped within 3,000 feet of the crossing.
- Movement is within 3,000 feet of the crossing and speed has increased by more than 5 mph.
- Movement is closely following another movement.
- Movement is on other than the main track or siding.

  or

- Movement enters a main track or siding within 3,000 feet of the crossing.

Employees must observe all automatic crossing warning devices and report any that are malfunctioning to the train dispatcher by first available means of communication. Notify all affected trains as soon as possible.

A. Automatic Warning Devices Malfunctioning

Use the following table to properly complete movement over the crossing:

Movement when notified that Automatic Warning Devices have an Activation Failure, are Disabled, or Malfunctioning

If...	Then...
The crew is notified that the crossing warning system is malfunctioning, has an activation failure or that the crossing warning system has been disabled.	Stop before occupying the crossing. After a crew member is on the ground at the crossing to warn highway traffic, proceed over the crossing on hand signals from that crew member. Then proceed at normal speed.
The crew is notified that the crossing warning system is malfunctioning, has an activation failure or that the crossing warning system has been disabled, and is notified that the crossing has one or more equipped flaggers who are able to provide warning in all directions of approaching traffic.	Stop before occupying the crossing. Proceed over the crossing on hand signals from the flagger. Then proceed at normal speed.
NOTE: An equipped flagger is a person other than a crew member who is equipped with an orange vest, orange shirt or orange jacket. At night, the vest, shirt or jacket must be fluorescent. The flagger must have a red flag or stop paddle by day and a light at night.	

When advised by the train dispatcher the automatic warning devices are repaired or returned to service, these restrictions no longer apply.

NOTE: Track bulletins issued to protect malfunctioning automatic warning devices will prescribe a 0/0 MPH head end restriction at the crossing location.

B. Whistle for Crossing

When notified that automatic warning devices are malfunctioning, sound whistle signal, *M.O.M.* 5.8.2(7), regardless of any prohibition.

C. Train Dispatcher

When notified that automatic warning devices are malfunctioning, the train dispatcher must:

- Notify all trains.
- Contact local law enforcement agencies.

D. Power Off Indicators

When the power off indicators on the side of signal housings at highway crossings are illuminated, immediately notify the train dispatcher.

E. Flagger Responsibilities

- Refer to Part A of this rule.

F. Protecting Automatic Crossing Devices

Follow these precautions to protect automatic crossing devices:

1. When a highway crossing signal, bell, or gate is out of order and cannot be immediately repaired:

   a. Promptly notify the train dispatcher.

   b. Protect the crossing according to the dispatcher's instructions.

2. Prior to performing work within a circuit that controls an Automatic Warning Device, employees must contact the Signal Department to:

   a. Determine if the work to be performed will activate that device.

   b. Make arrangements to have the device disabled if it will be affected.

   Notify the Signal Department when the work is completed to have the device re-activated and inspected.

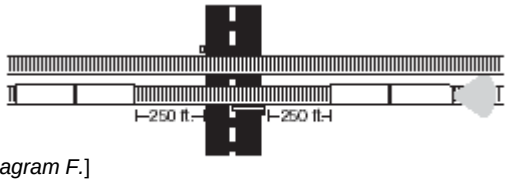
6.32.3 Providing Warning for Adjacent Tracks

When practical, position an employee on the ground to warn traffic against movements approaching on adjacent tracks, under either of the following conditions:

- A train or cut of cars is parted closer than 250 feet from a road crossing.
- The head-end of a movement is stopped closer than 250 feet from a road crossing.

6.32.4 Clear of Crossings and Signal Circuits

Leave cars, engines, or equipment clear of road crossings and crossing signal circuits. When practical, avoid leaving cars, engines, or equipment standing closer than 250 feet from the road crossing when there is an adjacent track.



[*Diagram F.*]

6.32.5 Actuating Automatic Warning Devices Unnecessarily

Avoid actuating automatic warning devices unnecessarily by leaving switches open or permitting equipment to stand within the controlling circuit.

6.32.6 Blocking Public Crossings

When practical, a standing train or switching movement must avoid blocking a public crossing longer than 10 minutes.

7.0 Switching

7.1 Switching Safely and Efficiently

While switching, employees must work safely and efficiently and avoid damage to contents of cars, equipment, structures, or other property.

Do not leave equipment standing where it will foul equipment on adjacent tracks or cause injury to employees riding on the side of a car or engine.

On tracks where clearance point is indicated, leave equipment beyond the clearance point.

If the clearance point is not indicated or visible, determine the clearance point by standing outside the rail of adjacent track and extend arm towards the equipment. When unable to touch the equipment, leave equipment at least an additional 50 feet into the track to ensure equipment is beyond the clearance point.

Equipment may be left on a:

- Main track, fouling a siding switch, when the switch is lined for the main track.
- Siding, fouling a main track switch, when the switch is lined for the siding.
- Yard switching lead, fouling a yard track switch when the switch is lined for the yard switching lead.

or

- Industry track beyond the clearance point of the switch leading to the industry.

7.4 Precautions for Coupling or Moving Cars or On-Track Equipment

Before coupling to or moving cars or on-track equipment, verify that the cars or on-track equipment are properly secured and can be coupled and moved safely.

Make couplings at a speed of not more than 4 mph. Stretch the slack to ensure that all couplings are made.

7.5 Testing Hand Brakes

Employees must know how to operate the type of brakes they are using. When hand brakes must control or prevent car or on-track equipment movement, test the brakes to ensure that they are operating properly before using them.

7.6 Securing Cars or On-Track Equipment

Do not depend on air brakes to hold cars or on-track equipment in place when left unattended. Insure that equipment left unattended is properly

secured and that sufficient hand brakes are applied to prevent movement. If hand brakes are not adequate, block the wheels.

Do not release the hand brakes until the air brake system is fully charged.

When cars or on-track equipment are moved from any track, apply enough hand brakes to prevent any remaining cars from moving.

7.7 Kicking or Dropping Cars

MOW employees must not kick or drop cars.

7.8 Coupling or Moving Cars on Tracks Where Cars are Being Loaded or Unloaded

Before coupling to or moving cars on tracks where cars are being loaded or unloaded, employees must be sure that all of the following have been removed or cleared:

- Persons in, on, or about cars
- Platforms
- Boards
- Tank car couplings and connections
- Conveyors
- Loading or unloading spouts and similar appliances or connections
- Vehicles
- Other obstructions

In addition:

- Be careful to avoid damage to freight of partly loaded cars.
- Do not handle cars that are improperly or unevenly loaded if load could shift or fall from the car, or if the car could derail or overturn.
- Return any car placed for loading or unloading to the location it was found if it has not been released for movement.
- Do not pull empty cars from an unloading facility until any major accumulation of debris is removed.

- Ensure that plug-type and swinging doors on cars are properly closed or secured. However, crew members must not attempt to close those doors. If plug door is found open enroute, car may continue in the train to the next location where mechanical forces are available to close door.

7.10 Movement Through Gates or Doorways

Before moving engines, cars, or other equipment through gates, doorways, or similar openings, stop to ensure that the gates, doorways, or openings are completely open and secure. When overhead or side clearances are close, make sure movement is safe. Do not ride on side of a car, engine or other equipment when moving through gates, doorways or similar openings.

7.11 Charging Necessary Air Brakes

Do not handle cars without charging the air brake system, unless the cars can be handled safely and stopped within the required distance. If necessary, couple the air hoses and charge the brake systems on a sufficient number of cars to control movement.

7.12 Movements Into Spur Tracks

When shoving cars into a spur track, control movement to prevent damage at the end of the track, and do the following:

- Stop movement 150 feet from the end of the track.
- Apply hand brakes, when necessary, to control slack.
- Have an employee precede any further movement when it can be done safely.
- Move only on the employee’s signal.

8.0 Switches

8.1 Hand Operation of Switches

Spring or dual-control switches operated by hand are considered hand-operated switches, and all rules governing hand-operated switches apply.

8.1.1 Switch Awareness

Where applicable, employees must fill out and retain ARRC Switch Awareness Forms.

8.2 Position of Switches

The employee handling the switch or derail is responsible for the position of the switch or derail in use. The employee must not allow movement to foul an adjacent track switch until the hand-operated switch or derail is properly lined.

Do not operate a switch that is tagged. If a switch is spiked, do not remove the spike unless authorized by the work group that placed it.

Employees handling switches and derails must make sure that:

- The switches and derails are properly lined for the intended route.
- The points fit properly and the target, if so equipped, corresponds with the switch's position.
- When the operating lever is equipped with a latch, they do not step on the latch to release the lever except when throwing the switch.
- After locking a switch or derail, they test the lock to ensure that it is secured.
- The switch is not operated while equipment is fouling, standing on, or moving over the switch.
- When equipment has entered a track, the switch to that track is not lined away until the equipment has passed the clearance point of the track.

When possible, employees must see that the switches and derails near on-track equipment are lined properly.

8.3 Main Track Switches

The normal position of a main track switch is for main track movement, and it must be lined and locked in that position.

However, the main track switch may be left open:

- When temporarily lined for immediate movement.

  or

- Within TWC territory, when authorized by TWC authority. TWC protection must be provided for this condition. The switch must not be considered restored to normal position until the train dispatcher is notified by an employee at that location.

On controlled track switches (if equipped), the target will be red and perpendicular to the track if the switch is lined in other than its normal position.

In addition to the provisions of this rule, at points where double track begins, the normal position of a spring switch is for movement with the current of traffic.

Before reporting clear of a track warrant, track and time in a siding or other track, controlled track switches must be lined and secured in the normal position.

Do not open main track hand-operated switches, except as instructed by the Employee In Charge. The Employee In Charge should avoid transferring authority or responsibility to handle main track hand-operated switches whenever possible. When it is necessary to transfer such authority or responsibility, the Employee In Charge must ensure that the switch is lined and secured in normal position before releasing main track authority.

The position of the switch must be determined by the Employee In Charge by making a visual inspection or by communicating with the employee operating the switch. When communicating the position of the switch, the information must be acknowledged and repeated by the Employee In Charge.

Lone workers who operate main track switches must observe the position of the switch and ensure that the switch is lined and secured in the normal position before leaving the area.

Before leaving the location where a hand-operated main track switch was operated:

- Crew members must confirm the position of the switch with each other.
- Men and Equipment granted authority to enter working limits must confirm the position of the switch with the employee

in charge or a designated employee who will notify the employee in charge.

8.3.1 Hand Throw Switches

Do not open main track hand-operated switches except as instructed by the Employee In Charge.

8.3.2. Switch Awareness Form

Employees operating on controlled track must record information on ARRC “Switch Awareness Form” daily and submit forms with weekly reports to the appropriate supervisor.

Switch Position Awareness Form

Date_____

A Location of Main Track Switch Handled	B Time Switch Reversed	C Time Switch Lined Normal	D Conductor or EIC Initials	E Engineer Initials	F Other Information

November 10 2005

Train ID and Engine Number or Equipment

Identification_____

Anchorage Subdivision ☐ **Seward Subdivision** ☐
Whittier Subdivision ☐

Engineer_____

Conductor or EIC_____
(SIGNATURE)

Instructions: This form must be completed in ink and submitted with time slip, even if no switches are handled while operating in non-signaled territory. One page must be submitted for each tour of duty. It is the responsibility of the Conductor or EIC to record on this form and conduct a job briefing whenever a main track switch in non-signaled territory is to be lined and again after the switch is finally returned to the normal position. If you have written authority to leave a switch reversed or to restore a switch to normal position, show that in column B or C. If a member of another crew handles a switch for a train or equipment, note the identity of that crew in the box, (i.e. if 4003 North lines your train into the siding at NSS Gold Creek, and made the same switch normal after you cleared it, you would enter the time and 4003 N in both columns B & C) The subdivisions upon which the activity occurred must be checked.

The name of the Conductor, Engineer or EIC must be entered above. The identified employee(s) must then initial this form where required. The conductor **must** sign the form after it is completed.

This form must be kept current as each main track switch is handled and is subject to inspection at any time.

8.4 Lining Main Track Switch

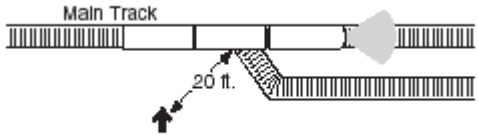
When an employee lines the switch to let a movement enter or leave the main track, the employee must then go to the opposite side of the track and not return to the switch stand until the movement is complete. If unable to go to the opposite side of the track, the employee must stand at least 20 feet from the switch stand.

8.5 Clearing Main Track Before Restoring Switch

Do not return a main track switch to the normal position until movement is clear of the main track.

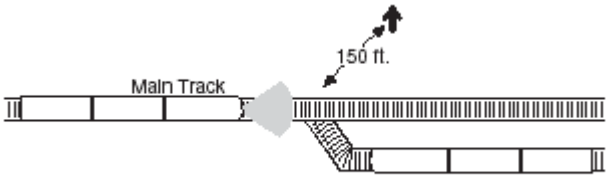
8.7 Clear of Main Track Switches

Except in switching movements, when a train, engine, or on-track equipment is approaching or passing on a main track, employees must not go nearer than 20 feet to any main track switch. Whenever possible, employees must cross to the opposite side away from the switch stand and not return until movement has been completed.



[Diagram A.]

When a train, engine or on-track equipment that will be met or passed is on a siding or other track, the employee attending the switch must not be nearer than 150 feet to the switch when the train is closely approaching.



[Diagram B.]

Inspecting Hand-Operated Switches in Non-Signaled Territory

In non-signaled territory, if the expected train is not closely approaching, a crew member will inspect facing point, hand-operated switches the train will pass over to determine that the:

- Switches are lined for the intended route.
- Switch points fit properly.
- Switch lever is secured.

8.8 Switches Equipped with Locks, Hooks, or Latches

When not in use, switches must be locked, hooked, or latched if so equipped. Before making movements in either direction over these switches, make sure that the switch is latched or secured by placing the lock or hook in the hasp. However, when making movements in facing point direction, lock the switches equipped with a lock.

Replace any missing or defective switch locks. If they cannot be replaced, report the condition at once to the train dispatcher, yardmaster, or supervisor in charge, and spike the switch if possible.

8.9 Movement Over Spring Switches

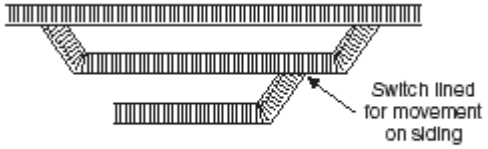
Spring switches are identified by the letters S or SS, special targets, signs, and/or lights. On-track equipment must not trail through a spring switch unless the switch is lined for such movement.

8.10 Switch Point Indicator

Aspect	Indication
Green	Switch points fit properly in normal position.
Yellow	Switch points fit properly in reverse position.
Red or Dark	Stop and inspect switch.

8.11 Switches in Sidings

The normal position of switches connecting any track, except the main track, to a siding is lined and locked or secured for movement on the siding.



[*Diagram C.*]

8.12 Hand-Operated Crossover Switches

The normal position of crossover switches is for other than crossover movement. The crossover switches must be left lined in normal position, except when they are in use for crossover movements. Both switches of a crossover shall be properly lined before equipment begins a crossover movement. A crossover movement shall be completed before either switch is restored to normal position, except when one crew is using both tracks connected by the crossover during continuous switching operations.

In Rule 6.14 (Restricted Limits), Rule 6.28 (Movement on Other than Main Track) or non-signaled Rule 6.13 (Yard Limits) territory, crossover switches may be left out of correspondence while providing blue signal or inaccessible track protection. When protection is no longer required the crossover switches connected to a main track or siding must be left lined for other than crossover movement. Crossover switches not connected to a main track or siding must be left in a corresponding position.

In signaled territory, crossover switches may be out of correspondence while performing maintenance, testing or inspection.

8.13 Scale Track Switches

When scales are not in use, line switches for dead rails where provided.

8.14 Conflicting Movements Approaching Switch

When conflicting movement is closely approaching a switch, the track must not be fouled or the switch operated.

Crossover switches must not be unlocked or lined for crossover movement when another movement is approaching or passing over either switch.

8.16 Damaged or Defective Switches

Report a switch that is damaged or defective to the train dispatcher, yardmaster, or supervisor in charge. Tag the switch, spike the switch if it is necessary unless the trackman or other employee takes charge. If the switch cannot be made safe, provide protection at once.

8.18 Variable Switches

On-track equipment must not trail through a variable switch unless the switch is lined for such movement.

8.19 Automatic Switches

The location of automatic switches will be designated in the timetable. When movement authority requires a train to stop at an Automatic Switch location, stop must be made before any part of a train passes the signal governing movement over the Automatic Switch.

To operate an automatic switch by hand, do the following:

- Unlock the switch lock.
- Operate the hand throw lever until the switch points move when the lever is moved.
- Line the switch for the intended route.

- Do not return the selector lever to the POWER position until the entire movement has passed over the switch.

When the switch is in the POWER position, the switch will automatically return to its normal position.

When on-track equipment is operating on a siding, the equipment must be stopped before it fouls an adjacent track or passes an overlap sign, if equipped, and automatic switch must be hand operated. The switch must not be returned to POWER position until all on-track equipment has passed over the switch.

When automatic switches are operated by hand, all rules governing hand operated switches apply.

8.19.1 Radio Controlled Switches

The location of radio controlled switches and operating instructions will be designated in the timetable and special instructions.

8.20 Derail Location and Position

Employees must know the location of all fixed derails. MOW equipment moving on or entering tracks where fixed derails are located, must stop at least 50 feet from derail in derailing position. Movement must not continue until the derail is placed in the non-derailing position. However, the distance restriction will not apply in engine servicing areas.

Do not make a movement over a derail in derailing position.

Derails on controlled sidings will be locked in the non-derailing position, derails on auxiliary tracks will be placed in the non-derailing position, EXCEPT when engines, equipment or cars are left unattended on the tracks the derail will be protecting. Lock all derails equipped with a lock.

Derails that are used in conjunction with *M.O.M.* Rule 5.12 (Protection of Occupied Outfit Cars), Rule 5.13 (Blue Signal Protection of Workmen), or roadway worker protection must be in the derailing position only when their use is required for such protection. When their use is not required for protection:

- Remove portable derails.

  NOTE: Portable derails not in use shall be secured with chain and lock to a fixed object or locked inside a building or cab of vehicle or equipment.

  or

- Remove RWP locks from fixed derails and replace switch lock if so equipped.

REPORT DERAILS PLACED IN DERAILING POSITION ON CONTROLLED TRACK TO THE TRAIN DISPATCHER.

9.0 Block System Rules

9.13 When Instructed to Operate Dual-Control Switches by Hand

If the control operator cannot line the dual-control switch to the desired position, or the control machine does not indicate that the switch is lined and locked, the dispatcher must instruct the employee to operate the switch by hand.

Before passing over the switch, the movement must stop and the employee must operate the switch by hand as outlined in *M.O.M.* Rule 9.13.1 (Hand Operation of Dual-Control Switches). After the entire movement has passed over the switch points, the employee must return the switch to power unless otherwise instructed by the dispatcher.

9.13.1 Hand Operation of Dual-Control Switches

An employee must get permission from the dispatcher to operate a dual-control switch by hand. Operate the switch as follows:

- Unlock the switch lock.
- Place the selector lever in the HAND position or remove the hand crank from the holder.
- Operate the hand throw lever until the switch points are seen to move when the lever is operated, even if the switch is lined for the intended route.
- Line the switch for the intended route, or insert the crank on the shaft and turn the crank as far as it will turn until the switch is in the desired position. Remove the crank from the shaft, but do not return it to the crank holder.
- Return the switch to power by restoring the selector lever to the POWER or MOTOR position and lock. Or, return the crank to the holder and secure it with the switch lock. Notify the dispatcher after power to the switch is restored.

For other types of switch machines, follow the above procedure using the instructions for operation posted at the switch or by special instructions.

9.18 Electrically Locked Switches and Derails

Special instructions or instructions posted near the switch will govern the operation of switches and derails equipped with electric locks.

To enter a track within manual interlocking or CTC limits, employees must not open the case door or unlock an electrically locked switch or derail without authority from the dispatcher.

Emergency Release

If the electric lock includes an emergency release, do not break the seal on the release or operate the release without permission from the train dispatcher. However, when communication has failed, the seal may be broken and/or the release operated:

- To permit a train or on-track equipment to leave the main track.

  or

- To permit a train or on-track equipment that has authority to enter the main track. Train or on-track equipment must not enter the main track until 5 minutes after the seal is broken and/or the release operated.

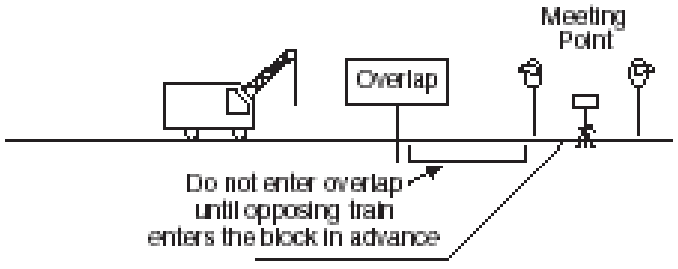
Notify the train dispatcher when the seal has been broken and/or the emergency release operated.

9.20 Clear Track Circuits

A train, engine, car, or on-track equipment left standing on sidings or other tracks must be clear of insulated joints at clearance points.

9.21 Overlap Circuits

Overlaps may be identified by overlap signs. On-track equipment on the main track at a meeting point must not pass an overlap sign location or open a switch within the overlap until the opposing train has entered the block.



[Diagram A.]

Unless otherwise instructed by the train dispatcher, a train on a siding at a meeting or passing point must not pass an overlap sign location until authorized to leave the siding.

10.0 Rules Applicable Only in Centralized Traffic Control (CTC)

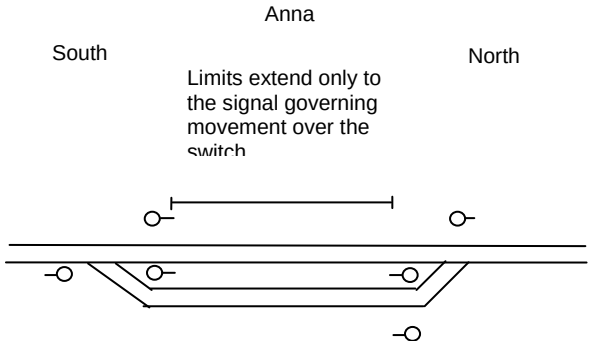
All references to 'Track and Time' mean 'Work Between'

10.3 Track and Time

The dispatcher may authorize a track car to occupy a track or tracks within specified limits for a certain time period. Authority must include track designation, track limits, and either a time limit or the words "until released." The track car may use the track in either direction within the specified limits until the limits are verbally released.

Limits designated by a switch extend only to the signal governing movement over the switch unless otherwise designated.

Mechanically transmitted track and time authority **must not** be acted upon until comparison of the track and time authority has been made with the train dispatcher.



[Diagram A.]

B. Additional Time

Track cars, employees, or equipment must release track and time before the time granted expires. If a track car, employee, or equipment requires additional time, an employee must obtain authority from the dispatcher before time expires. If the employee cannot contact the dispatcher and time limits expire, authority is extended until the dispatcher is contacted.

C. Releasing Track and Time

Employees and equipment must be clear of the limits before the employee granted track and time releases the authority.

An employee releasing track and time must state the following:

- The employee's name.
- The track limits being released.

10.3.2 Protection of People or Equipment Following a Train

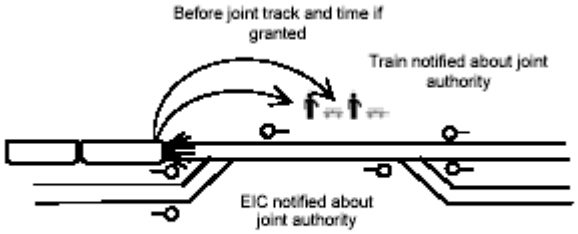
Employees may be issued track and time limits to follow a train or trains that have not been granted track and time as follows:

"Behind (train)."

10.3.3 Joint Track and Time

Before track and time is granted for on-track equipment or employees in the same limits with a train, each Employee In Charge and a crew member of each train must be notified of each other.

All those granted joint track and time must move at restricted speed.



[*Diagram B.*]

If track and time is joint, a working limit must be established using another form of protection or authority.

In accordance with Roadway Workers Protection, Joint Authorities must:

- Identify the employee(s) or train(s) that the authority is joint with

  And

- Specify the limits of the joint territory.

Employees receiving this information must:

- Record the joint limits in Other Instructions on the Mandatory Directive form
- Hold a job briefing with the named employee(s) or train(s) before entering the limits.
- Complete the joint authority job briefing information on the Mandatory Directive.

The job briefing must include the specific location of the working limits, such as:

- Crossing
- Bridge
- Station
- Switch

If a milepost is used to identify the working limits, it must be stated to the nearest 1/10th (.1) of a mile.

Approximate locations, such as curves or hills, must not be used.

When working limits are established within joint territory, other employees or trains must contact the EIC of each working limit listed in Other Instructions before entering the working limits.

The aforementioned rules are also applicable to rule 14.4 Work Between when that authority is issued Joint.

10.3.4 Record Track and Time

The employee requesting track and time will state his or her name, occupation, exact location and train or other identification. The employee will copy the authority granted on the form provided for the purpose, and repeat from the form the authority granted. If the authority is repeated correctly, the dispatcher will acknowledge with, “That is correct.” The track car can make no movement until the crew understands the track and time granted. The employee who requests track and time must retain the written track and time record until the end of that tour of duty. The track and time must be marked void when the authority is released. The dispatcher

must maintain a record of authority granted, including the time the track and time was released.

When requesting track and time, if communication is lost or an incomplete message is received while the dispatcher is issuing track and time, or if after repeating the authority to the dispatcher, the employee does not hear the response from the dispatcher, “That is correct,” the employee must not occupy the track. The employee requesting track and time must contact the dispatcher as soon as possible and confirm with the dispatcher that the track and time was not received.

14.0 Rules Applicable Only Within Track Warrant Control (TWC) Limits

Joint Authority Briefing Information

	Name of Work Group	Name of EIC	Working Limits Between		Brief Time	Notes
1						
2						
3						

Vehicle _____ in Limits. Clear ____ hrs. Vehicle _____ in Limits. Clear ____ hrs.
Vehicle _____ in Limits. Clear ____ hrs. Vehicle _____ in Limits. Clear ____ hrs.

ARRC Mandatory Directive Form

Maintenance of Way
Train in Line 7 past set-on location?

No _____ Date _____ 20 _____
To _____ Employee _____ At _____

☐ 1. Void Authority Number _____

☐ 2. Proceed From _____ to _____ on _____
Proceed From _____ to _____ on _____
Proceed From _____ to _____ on _____
Proceed From _____ to _____ on _____

☐ 3. Clear Main Track at _____

☐ 4. After the Arrival of _____ at _____
proceed from _____ to _____ on _____
proceed from _____ to _____ on _____

☐ 5. After the Arrival of _____ at _____
work between _____ CTC ONLY (SW YES) and _____ CTC ONLY (SW YES) on _____
work between _____ CTC ONLY (SW YES) and _____ CTC ONLY (SW YES) on _____

☐ 6. Work Between _____ CTC ONLY (SW YES) and _____ CTC ONLY (SW YES) on _____
Work Between _____ CTC ONLY (SW YES) and _____ CTC ONLY (SW YES) on _____
Work Between _____ CTC ONLY (SW YES) and _____ CTC ONLY (SW YES) on _____
Work Between _____ CTC ONLY (SW YES) and _____ CTC ONLY (SW YES) on _____

☐ 7. Do not set on ahead of or pass preceding train(s) _____, _____, _____.

☐ 8. Joint Authority Between _____ and _____
With _____ Between _____ and _____ on _____
With _____ Between _____ and _____ on _____
With _____ Between _____ and _____ on _____

☐ 9. Protect Against Open Switch(es) at _____

☐ 10. Leave the Following Switch(es) in the Reverse Position _____

☐ 11. Other Specific Instructions _____

Radio Blocking Behind _____ Between _____ and _____ on _____
Operate Dual Control Switch(es) by hand at _____

☐ 12. This Authority Requires a Meet with Another Train(s) at _____

This authority has ____ boxes marked: ____, ____, ____, ____, ____, ____, ____, ____, ____, ____, ____, ____, ____

OK _____ DISPR _____ Copied By _____

Track Released

Radio Blocking
Behind Train:
_____
clear of location

[Diagram A.]

14.1 Authority to Enter TWC Limits

Where designated by the timetable, a track warrant will authorize controlled track use under the direction of the train dispatcher or as prescribed by Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits). Track warrant instructions must be followed where yard limits or restricted limits are in effect.

Sidings within TWC limits are controlled track and are governed by TWC rules. A track car must not enter or occupy any track where TWC is in effect unless authorized by the dispatcher.

14.2 Designated Limits

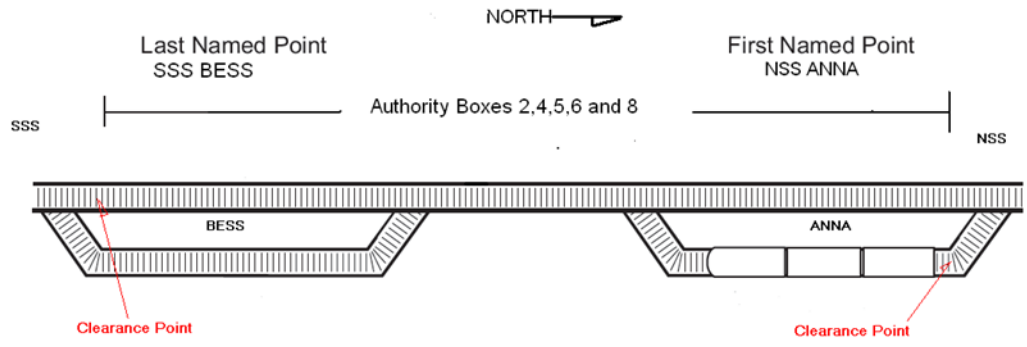
Track warrant limits must be designated by specifying track, where required, and specific locations such as switches, mile posts, or railroad identifiable points. When switch names are used, they will be used as follows:

A. First Named Point

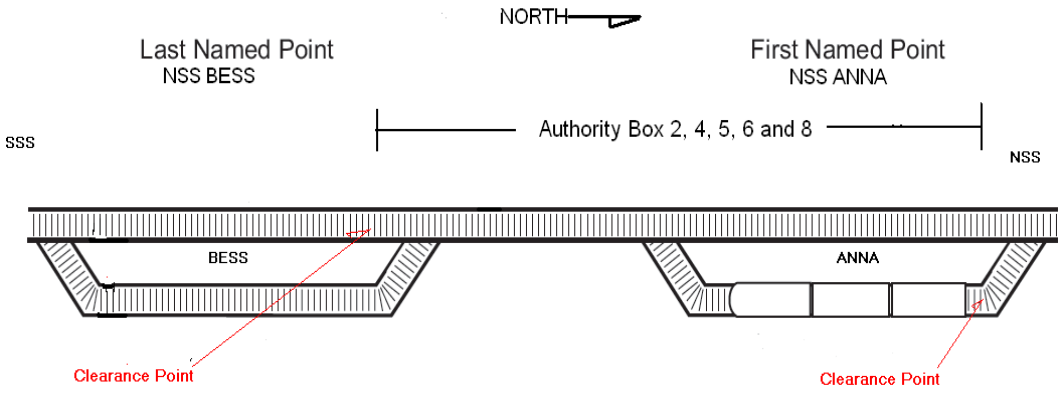
When a switch designates the first named point, authority extends from the clearance point of the switch.

B. Last Named Point

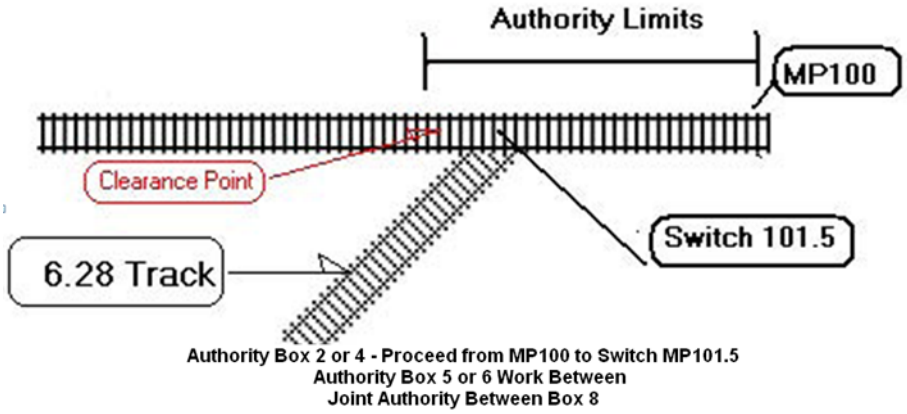
When a switch designates the last named point, authority extends to the clearance point of the switch.



[Diagram A.]



[Diagram B]



14.2.1 Remaining Clear of Switches

Track Cars do not foul controlled track, facing point switches unless:

- Authority extends beyond the switch.

  Or

- Track Car enters non controlled track at the switch.

14.3 Operating with Track Warrants

A track warrant authorizes a track car to occupy the controlled track within designated limits. However, the train or engine must not foul a switch at either end of the limits where an opposing train may use the same switch to clear the main track.

The track car must move as follows:

1. When authorized to “WORK BETWEEN” two specific points, the track car may move in either direction between those points. When

a crew member informs the train dispatcher that the authority is released between two specific points, the authority is considered void between those points. This track release must begin at the outer limit of the authority.

14.3.1 Leaving Controlled Track

A train authorized to proceed in one direction must inform the train dispatcher when it leaves controlled track before reaching the last named point, unless a crew member is left to prevent a following movement from passing.

14.4 Occupying Same Track Warrant Limits

A track warrant must not be issued to a track car within the same or overlapping limits with another track car or train unless:

1. Two or more trains or track cars are authorized to “WORK BETWEEN” two specific points at restricted speed within the overlapping limits.
2. Trains or track cars are authorized to proceed through the limits of another train or track car authorized to “WORK BETWEEN” two specific points, and track warrants instruct all trains or track cars to move at restricted speed within the overlapping limits.

   or

Where track warrant authority includes yard limits or restricted limits, the terms of Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) apply, but track warrant instructions must be followed.

14.4.1 Radio Blocking

Where designated by special instructions, in non-signaled territory, more than one train may be authorized to proceed in the same direction within the same or overlapping limits, provided the following train:

- Is notified on the track authority of the identity of the preceding train.
- Does not occupy the limits ahead of the preceding train.
- Notifies the crew of the preceding train that radio blocking has been authorized stating the limits.
- Is notified by the preceding train that the entire train has passed a specific location. Location specified must not be beyond limits indicated. The following words must be used: “(Train) clear of (location)”.
- Does not proceed beyond the last location the preceding train has reported to have passed.

All instructions between the trains must be written, repeated, and acknowledged with “THAT IS CORRECT” before being acted on. These written instructions between the trains must be retained until the end of tour of duty.

Notify the train dispatcher if communication cannot be established between the two trains. If necessary, radio blocking information may be relayed only by the train dispatcher.

The last named point of the following train’s authority must not extend beyond the last named point of the preceding train’s authority.

In the application of Rule 6.4 (Reverse Movements) and Rule 6.6 (Picking Up Crew Member), the movement must not go beyond the last specific location reported to the following train.

14.5 Protecting Men or Equipment

Men or equipment may receive a track warrant in the same manner as trains to occupy or perform maintenance on controlled track without other protection.

A track warrant must not be issued to protect men or equipment within the same or overlapping limits with a train unless:

1. All trains are authorized to proceed in one direction only, and the track warrant specifies that men or equipment do not occupy limits ahead of these trains.

   or

2. All trains authorized are notified of the men or equipment and have been instructed by track warrants to move at restricted speed within overlapping limits. Also, a track warrant must inform the employee in charge of men or equipment about the trains. If the track is not safe for trains to move at restricted speed, the employee must protect the track with red flags according to Rule 5.4.7 (Display of Red Flag or Red Light).

14.6 Movement Against the Current of Traffic

When a track warrant authorizes a train to move against the current of traffic, the train must use only the track designated within the specified limits. This train must not allow a train following on the same track to pass, unless the train dispatcher instructs it to pass.

14.7 Reporting Clear of Limits

Before limits are reported clear, crew members must communicate with each other and confirm that their equipment is clear of limits to be released.

A train without a crew member on the rear and operating in non-signaled or double track territory may report clear of the limits, report having passed a specific location, or release the track between two specific locations only when it is known the train is complete. This must be determined by one of the following ways:

1. The rear of the train has a rear-end telemetry device, and air pressure on the head-end device indicates brake pipe continuity.
2. An employee verifies the marker is on the rear of the train.
3. A crew member can observe the rear car of the train on which the marker is placed.
4. The train is stopped, and an inspection verifies that the marker is on the rear car of the train.
5. A trackside warning detector transmits an axle count for the train, and the axle count duplicates the axle count transmitted by the previous trackside warning detector.

In addition, a train clearing in a siding or other track must comply with requirements outlined in Rule 8.3 (Main Track Switches) before reporting clear of the limits.

When a hand-operated switch is used to clear the main track, except where Rule 6.13 (Yard Limits) or Rule 6.14 (Restricted Limits) are in effect, advise the train dispatcher of the position of the switch and that the switch is locked when reporting clear of track warrant limits. Train dispatcher shall repeat the reported switch position and employee releasing the limits shall confirm to the train dispatcher this information is correct.

14.8 Track Warrant Requests

An employee who requests a track warrant must inform the train dispatcher what movements will be made and, when necessary, which tracks will be used and how much time is required.

14.9 Copying Track Warrants

The conductor and the engineer must each have a copy of the track warrant issued to their train, and each crew member must read and understand it. The copy must show the date. The following must occur when transmitted verbally:

A. Transmitting Track Warrants

1. An employee will enter all of the information and instructions on the track warrant.
2. The employee will repeat the preprinted and written information transmitted by the train dispatcher.
3. The train dispatcher will check it and, if correct, will say “OK” and give the time and his initials.

4. The employee will enter the “OK” time and the train dispatcher’s initials on the track warrant and repeat them to the train dispatcher.

B. In Effect

1. The track warrant is not in effect until the “OK” time is shown on it.
2. If the track warrant restricts movement or previously granted authority, it cannot be considered in effect by the train dispatcher until acknowledgment of the “OK” has been received.

Employees may relay track warrants.

14.9.1 Duplicating Track Warrants

Employees who reproduce track warrants with a duplicating machine do not need to repeat them to the train dispatcher.

Duplicated track warrants must not be delivered or used until they are checked and verified as:

- Legible.
- Duplicated in their entirety.

14.10 Track Warrant in Effect

A track warrant is in effect until a crew member reports the track car has cleared the limits, or the track warrant is made void. The crew member must inform the train dispatcher when the train has cleared the limits.

Employees reporting clear of track warrant limits must state:

- Their name or other identification.
- Track warrant number being released.
- Limits being released.

Time Limit Shown

If the track warrant shows a time limit, the track car must clear the limits by the time specified, unless another track warrant is obtained. If an employee cannot contact the train dispatcher and the time limit expires, authority is extended until the train dispatcher is contacted.

14.11 Changing Track Warrants

Employees must not add to or alter the track warrant in any manner, except as specified by Rule 15.1.1 (Changing Address of Track Warrants or Track Bulletins).

When the limits or instructions of a track warrant must be changed, a new track warrant must be issued showing, “Track Warrant No. _____ is void” and the number of the track warrant being

changed. When a track warrant of a previous date is voided, the date must be included. The previous track warrant will no longer be in effect.

14.12 Not Used

14.13 Mechanical Transmission of Track Warrants

Repetition is not required when track warrants are transmitted mechanically. The “OK” time will be given when the track warrant is issued.

Track warrants that restrict the authority or movement of a train must not be transmitted mechanically, unless the train being restricted will not leave the point without receiving the track warrant.

15.0 Track Bulletin

ARRC Track Bulletin Example

ARRC TRACK BULLETIN

No._____ On: _____ Subdivision: _____ 20_____

To: _____ At: _____

Use "FLAGS AT MP" Column When Flags Displayed Less Than Distance Prescribed by Rule 5.4.3 or 5.4.3

TRACK BULLETIN FORM A

Between Points Shown in Lines 1 Through 10 Below Do Not Exceed Speed Given

Line Void	Line No.	MP	LIMITS TO	MP	SPEED MPH	FLAGS AT MP NORTH	FLAGS AT MP SOUTH
	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
	11	OTHER CONDITIONS:					

_____

TRACK BULLETIN FORM B

On (Date) _____ Be Governed by Rule 15.2 Within Following Limits:

Line Void	Line No.	MP	LIMITS TO	MP	TIME FROM	TIME UNTIL	FLAGS AT MP NORTH	FLAGS AT MP SOUTH	FOREMAN or GANG	STOP
	1									
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9									
	10									

TRACK BULLETIN FORM C

SPECIAL INSTRUCTIONS : _____

_____

TRACK BULLETIN FORM F

Line Void	Line No.	BETWEEN MP	AND MP	INFORMATION
	1			
	2			

Total Lines Used: _____ OK _____ (TIME) Dispatcher: _____

Copied By: _____ Relayed To: _____

15.1 Track Bulletins

The track car operator must receive a mandatory directive prior to occupying controlled track. The track car operator must have copies of all track bulletins that will affect their movement.

All crew members must be briefed on the contents of the bulletin.

All crew members are responsible for complying with the requirements of track bulletins and reminding each other of those requirements.

15.1.1 Changing Address of Mandatory Directives or Track Bulletins

If the address must be changed on a mandatory directive used to deliver track bulletins only or a track bulletin that does not grant authority the train dispatcher may verbally change the address, direction, or date.

15.2 Protection by Track Bulletin Form B

Display yellow-red flags as specified in *M.O.M.* Rule 5.4.3 (Display of Yellow-Red Flag).

Track car operators must make certain that the location where they will enter controlled track is not within the limits of a Form B. Track car operators must stop at the indicated limits even if no red flags are displayed.

Track car operators must be informed of Form B limits. The train dispatcher can provide Form B territory information using any of the following methods:

1. Track car operators must obtain a Form B Track Bulletin for that subdivision at their start up location, the bulletin must be compared with the train dispatcher prior to receiving an authority.

If the Form B is not available through method 1 then:

2. The train dispatcher may issue the track car operator a track bulletin containing all necessary Form B information.

3. The train dispatcher may indicate the limits of a Form B in the other specific instructions of the mandatory directive.

4. The train dispatcher may issue TWC authority that ends at the working limit of the Form B territory. A track car operator receiving this type of authority would go to the end of the work between limits, then request permission from the EIC to share the Form B limits.

NOTE: Whenever Form B information is received by either method 1 or method 2, it remains in effect until the end of the tour of duty, unless voided by the train dispatcher.

A train or track car must not enter the limits unless instructed by the employee in charge. A train or track car within the limits at the time the track bulletin Form B takes effect must not make further movement until instructed by the employee in charge.

A crew member must attempt to contact the employee in charge of a track bulletin Form B to avoid delay, giving the train or track car's location and track being used. The employee in charge will use the following format to establish communication with the train or track car:

Foreman (name and/or gang number) using Track Bulletin No.____ (specifying line number when necessary) between MP____ and MP____ (specifying subdivision when necessary).

Movements within the limits of a track bulletin Form B, unless otherwise restricted, must move at the speed(s) specified by the employee in charge as stated in Item A (Instructions).

A. Instructions

After communication has been established, the employee in charge will use the following format to grant permission to proceed through the Form B limits:

- (Train ID / Track Car ID) may pass the red flag (or red light) at MP____ (without stopping) and proceed at (one of the following), (specifying track when necessary):
    - "Maximum Authorized Speed"
    - "Restricted Speed"
    - A speed specified by the employee in charge

Two additional speeds may be given to restrict movement through a portion of the limits, by adding the following:

- Do not exceed ____MPH between/at MP____ and MP____ (or other location).

To require a movement to stop at a designated location within the limits, add the following:

- Stop at MP____ (or other location) until additional instructions are received.

When men or equipment foul adjacent track(s), add the following:

- Men or equipment fouling (specify track).

B. Repeat Instructions

A crew member must repeat the above instructions, and the employee giving the instructions must acknowledge them before they can be followed.

Once instructions are received from employee in charge, if the track route changes from previous instructions received, contact employee in charge to determine that original instructions received are valid on new track route before proceeding on the new route. The movement must not change direction without permission from the employee in charge.

C. Form B bulletins do not expire, with or without an expiration time, until voided.

15.2.1 Switches Within Form B Limits

A. Control Points

When Track Bulletin Form B limits contain a dual-control switch, the Employee In Charge of the Track Bulletin Form B must ascertain from the control operator that blocks are applied to dual-control switches on the segment of track to be occupied or fouled. This must be done before occupying or fouling the limits of the Track Bulletin Form B.

B. Crossovers

Outside of CTC when Track Bulletin Form B limits contain a crossover from the other main track, the Employee In Charge of the Track Bulletin Form B must ensure that all crossover switches providing access to the track segment to be occupied are:

- Lined in normal position.
- Spiked, clamped, or locked with an effective locking device.
- Properly tagged.

15.2.2 Time Limits Expire

The Employee In Charge of track bulletin Form B protection must void the track bulletin Form B by the time specified. If the Employee In Charge cannot contact the train dispatcher and time limits expire, track bulletin Form B protection is extended until the train dispatcher can be contacted.

15.2.3 Requesting Track Bulletin Form B

Follow these steps to request a Track Bulletin Form B:

Contact the MOW Logistics Technician prior to 1500 the day before the required Form B. **Exception: Form B requests for holidays, weekends or Mondays must be made on the last working day prior to the holiday, weekend or Monday.**

1. Give the MOW Logistics Technician the following information:

- Date when the Form B will be effective
- Limits of Form B by exact mile post, if possible (for example, MP 29.0, 30.0, 41.0, etc.)
- Time limits specified for Form B
- The subdivision which the restriction will apply to
- The title and name of the Employee In Charge

2. Request the shortest possible work limits.
3. Before displaying track flags or occupying the track, verify the track bulletin number and line number with the train dispatcher to make sure the requested track bulletin has been issued to trains. A written record of this comparison must be kept by the EIC while using the Form B.

15.2.4 Using Track Bulletin Form B

A movement must not be allowed into the limits of a Track Bulletin Form B until the track ahead of the intended movement is clear of all employees and equipment. Roadway workers may foul the track behind the movement if:

- The movement has been properly identified, and
- The EIC does not allow the movement to change direction.

EXCEPTION: If the track is fouled, the EIC may permit a movement to enter the limits

- If the movement operates at restricted speed;
- All roadway workers are advised that the movement will enter the limits; and the crew, of the movement, is informed of the location of all roadway workers within the Form B limits.

15.4 Protection When Tracks Removed from Service

Before a track is removed from service it must be protected.

A track bulletin may protect tracks removed from service by designating the track and naming the points at each end of the track. Trains must not use this track, unless the track bulletin states the name or title of an employee who may authorize use, and this person directs all movement. Movements must be made at restricted speed.

Proper authority must also be received to pass an absolute signal displaying a Stop indication to enter the out of service track. Except at interlockings, after stopping, movements may pass Stop indications within the out of service limits. Movements within the out of service limits may pass Stop and Proceed indications without stopping. When required, the train dispatcher must advise crews of alternate routes and switch positions.

15.5 Protection When Tracks Blocked with Equipment

Notify the train dispatcher when main tracks, controlled sidings, or other tracks that are normally clear are blocked with equipment and cannot be cleared.

When a controlled track is blocked, provide protection as specified by *M.O.M.* Rule 6.20 (Protection of Equipment Left on Controlled Track).

15.6 Change of a General Order, Special Instruction, or Rule

When authorized by the designated manager, a track bulletin may be used to issue, change, or cancel general orders, special instructions, or rules.

General orders or special instructions cancelled by track bulletins must not be reinstated. The track bulletin must remain in effect until the general order that contains the change is posted.

20.0 Foul Time

20.1 Foul Time

Track cars, machines, or employees may occupy a track through issuance of foul time by the train dispatcher. Foul time may be used for short duration “Fouling of a controlled track” or when other methods of protection are not available.

20.2 Requesting Foul Time

Employee requesting foul time must:

1. State name and location.

2. Specify the limits to be occupied, including track.

3. Advise if the work to be done will affect any track segment signal circuits beyond the foul time limits. If unsure, job brief with train dispatcher to see if additional protection is needed.

20.3 Granting Foul Time

After the train dispatcher transmits foul time:

1. Employee must repeat the foul time limits granted back to the train dispatcher.

2. The train dispatcher will check it and if correct will say “That is correct, (dispatcher’s initials)”.

3. Foul time is not in effect until train dispatcher’s initials are received and acknowledged.

20.4 Foul Time in Effect

Foul time granted will remain in effect until released by requesting employee.

Only the employee who receives foul time can release it.

An employee releasing foul time must state the following:

- The employee’s name.

- The foul time limits being released.

When responding to foul time release, train dispatcher will state: “Foul time between (location) and (location) reported clear. Is that correct, over?”

20.5 Using Foul Time

Employees using foul time must know the following:

- Track may be used in either direction without providing protection against either trains or other equipment.
- Foul time limits will only include the track in the direction switches are lined between absolute signals governing movement through a control point, unless specific authority is issued for the entire control point or authority is specified for a particular route within the control point or manual interlocking.
- Foul time may also be issued between specific switches or signals of a manual interlocking, if the train dispatcher has the capability to lock or block the switch or signal to prevent other movements into those limits.
- Foul time may not be issued either “joint with trains” or “joint with MW.” Therefore, track may be made unsafe for passage of trains without the display of red flags.
- Foul time must be released before the expiration of the time granted. If additional time is required, authority must be obtained before the authorized time limit expires. If the dispatcher cannot be contacted and the time limit expires, authority is extended until the dispatcher can be contacted.

21.0 Roadway Worker Protection

21.1 Introduction

On-Track Safety (OTS) is a requirement for all roadway workers. Roadway Worker Protection (RWP) is a Federal regulation designed to protect roadway workers from hazards in the workplace. The instructions in this chapter are the ARRC Roadway Worker submission to the FRA.

The purpose of OTS is to prevent accidents and injuries from railroad cars, locomotives, and roadway machines striking roadway workers and machines.

21.2 Training for All Roadway Workers

On-Track Safety training must be conducted annually for all roadway workers. In addition, any employee performing as a watchman, flagman, lone worker, machine operator, or Employee In Charge (EIC) must be qualified on the On-Track Safety procedures specific to that position.

21.2.1 Contractors

Contractors and other non-railroad employees 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 a job briefing. Contractors or other non-railroad employees must not be allowed to foul a track unless:

- They have been properly trained in the On-Track Safety procedures

  or

- A railroad employee who is trained and qualified as a lookout, flagman, or EIC, is present at the work site or has provided for OTS.

21.3 Job Briefings

A job briefing must be conducted before a roadway worker fouls any track. A job briefing is complete only when each roadway worker acknowledges understanding of the On-Track Safety procedures and instructions.

21.3.1 Job Briefing Roadway Work Groups

The EIC 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 On-Track Safety information must include:

- Identification of the EIC
- Type of On-Track Safety provided
- Track limits and time limits of track authority
- Track(s) that may be fouled
- On-Track Safety provided on adjacent tracks, if any
- Procedure to arrange for On-Track Safety on other tracks
- Method of warning when On-Track Safety is provided by a watchman/lookout
- Designated place of safety where workers clear for trains
- Designated work zone around machines

The EIC must give a follow-up job briefing whenever:

- Working conditions or procedures change,
- Other workers enter the working limits,

or

- On-Track Safety is changed, extended, or about to be released.

21.3.2 Job Briefing for Lone Workers

Each lone worker must participate in a job briefing with their supervisor, or other employee, at the beginning of each shift. This job briefing must include:

- The lone worker's planned itinerary.
- The procedures that the worker intends to use to establish On-Track Safety.
- The lone worker must complete and carry a statement of On-Track Safety, ARRC Form 23-0123P. This form must be discarded after use.

NOTE: If communication fails, conduct the job briefing as soon as communications are restored. If this occurs, the lone worker must still complete and carry a statement of On-Track Safety.

21.4 On-Track Safety Procedures

Statement of On-Track Safety Example

Statement of On-Track Safety

A lone worker using Individual Train Detection must complete this form prior to fouling a track.

1. Provide the following information:

   Name: _____

   Working Limits: _____

   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 that the employee(s) can be in a place of safety 15 seconds before the arrival of the train, engine or equipment.

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

Shared/Compared Form B Information

Date: _____ Form B No: _____

Line No: _____ Date: _____

Between: _____ And: _____

From: _____ Hrs Until: _____ Hrs

Short Flag Locations: _____

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

- Exclusive track occupancy
  - Track Bulletin Form B
  - Tracks Removed from Service (*M.O.M.* Rule 15.4)
  - Obstructed Track flags (*M.O.M.* Rule 23.2.3 Display of Yellow-Red Flag)
  - CTC authority (Track and Time)
  - Foul time
  - TWC authority (Work Between)
  - Inaccessible track
- Individual Train Detection (ITD)
- Train Approach Warning (TAW)

  or

- Flag protection

The EIC 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 selected must comply with the provisions of this chapter, as well as with:

- GCOR / MOM Rules
- ARRC Safety Rules (*S.A.F.E.*)
- Timetable Special Instructions
- General Orders
- Other Instructions

21.4.1 Controlled Track

Exclusive track occupancy may be used to establish working limits on controlled track by the use of one of the following:

- Track Bulletin Form B
- Tracks Removed from Service (*M.O.M.* Rule 15.4)

- Obstructed Track flags
- Work Between (TWC)
- Track and Time (CTC)
- Foul Time

A. Working limits may be established by track and time or work between. If authority is joint, another form of OTS (such as a flagman) must be provided within the overlapping limits if work is to be performed. When a roadway worker is sharing or coordinating authority with another roadway worker or train, it is considered Exclusive Track Occupancy (ETO).

B. Working Limits established by Track Bulletin Form B: When working limits are established by Track Bulletin Form B, the following applies:

- Track Bulletin Form B must be confirmed by dispatcher before it can be considered in effect.
- Track Bulletin Form B must have STOP in STOP column.
- Red flags must be displayed at each end of the limits.

See also *M.O.M.* Rule 15.2.3 (Requesting Track Bulletin Form B)

C. Working Limits established by track removed from service:

Notify the train dispatcher to place the specified limits out of service.

1. After confirming with the train dispatcher that the track is out of service, comply with part D of this rule to establish protection.

D. Working limits established by obstructed track flags:

1. To establish On-Track Safety using obstructed track flags:
2. Place flags as required by *M.O.M.* 23.2.3 (Display of Yellow-Red Flag).

E. Working limits established by foul time:

See also 20.0 (“Foul Time”)

1. Advise the train dispatcher of the portion of track that must be fouled giving exact identifiable points and time limits.

2. Before granting foul time, the train dispatcher will withhold authority to that portion of track for all trains and other on-track equipment.

3. Train dispatcher will repeat the requested information and employee is to listen for correctness and verify with train dispatcher that it is correct before foul time is effective.

4. Roadway worker must report clear to the train dispatcher when foul time is no longer needed.

21.4.2 Non-Controlled Track

A. Inaccessible Track

When working limits are established on non-controlled track by making the track physically inaccessible to trains and other on-track equipment it is called inaccessible track. When establishing protection, the Employee In Charge must ensure that equipment and employees do not occupy or foul the track until protection is established.

Inaccessible track may be used to establish working limits on adjacent non-controlled tracks when it is necessary to foul adjacent tracks.

The roadway worker establishes working limits on non-controlled track by any of the following methods:

- When work involves a red flag or light, place that red flag or light as outlined in *M.O.M.* Rule 5.4.7 (Display of Red Flag or Light). A derail capable of restricting access to the track where work will occur must be locked in derailing position near the red flag or light with an effective locking device. The red flag or light must be placed at least 150 feet from the work location when the track speed is greater than 5 mph and at least 50 feet from the work location when that track speed is 5 mph or less.

- When the work is to be performed on a non-controlled track adjacent to a track in CTC territory, request that the dispatcher line the switch against movement onto the non-controlled track and place a device block on the switch in that position.

- When work or protection involves a dual control DTMF yard switch, employees must establish protection by placing the switch in maintenance mode and secure that selector, as well as the hand operation cover, with a secure locking device.

- Line a switch or derail to prevent access to the working limits. The switch or derail must be tagged or marked and secured by an effective securing device.

- Place a flagman to hold all trains and roadway machinery clear of the working limits.

- Establish working limits on controlled track that connects directly with the inaccessible track.

or

- Remove a rail to prevent movement into the working limits.

NOTE: XX3X locks may be used as a locking device under the provisions of RWP. If a XX3X lock is used, it is not necessary to tag the switch or derail. XX3X lock must not be used for other than RWP purposes.

B. Inoperable Locomotive Tag

The sole purpose of the Maintenance of Way Inoperable Locomotive Tag is to provide Roadway Worker Protection against movement of unattended locomotives within their working limits. The Maintenance of Way Inoperable Locomotive Tag is to be used on non-controlled track only. Use for other purposes is prohibited.

A. To render unattended locomotive units, Diesel Multiple Units (DMU) or cab cars within Maintenance of Way Working Limits inoperable, a Maintenance of Way Worker will affix a tag of the prescribed size and appearance to the control stand of EACH unattended locomotive unit, DMU or cab car within working limits. This tag will be known as Maintenance of Way Inoperable Locomotive Tag and shall display the name of the person who affixed the tag and the date on which the tag was affixed.

The tag must be displayed on or near the gauges, on the control stand, of **EACH** locomotive unit, DMU or cab car within the working limits.

B. No locomotive unit, DMU or cab car, including any railcar attached, shall be moved or have brakes released until the tag is removed by the person who affixed it.

C. Each employee providing Roadway Worker Protection for himself or a workgroup must affix his own Maintenance of Way Inoperable Locomotive Tag to each unattended locomotive unit, DMU or cab car within or attached to cars within the working limits.

D. No locomotive unit, DMU or cab car within the working limits will be considered inoperable until **ALL** locomotives units, DMUs, or cab cars within the working limits are tagged.

E. A written record of each locomotive unit, DMU, or cab car tagged will be maintained by the person affixing a Maintenance of Way Inoperable Locomotive Tag, until the tag is removed.

F. All Maintenance of Way Inoperable Locomotive Tags affixed by an employee providing protection must be removed when:

1. Roadway Worker Protection is no longer required.

   or

2. The employee is relieved of his duty to provide Roadway Worker Protection. If Roadway Worker Protection is still required after the employee who originally affixed the tag is relieved of duty, the employee relieving the departing employee shall affix a new Maintenance of Way Inoperable Locomotive Tag(s) in accordance with this rule.

21.4.3 Individual Train Detection (ITD)

Individual train detection (ITD) 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 requires it. ITD can be used to provide On-Track Safety only if all the following conditions are met:

- The lone worker is trained and qualified 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 trains or equipment in either direction.

- The lone worker can visually detect the approach of trains or equipment moving at maximum speed and can move to a place of safety at least 15 seconds before their 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.

- The lone worker's ability to hear and see approaching trains and equipment is not impaired by:

  – Background noise

  – Lights

  – Inclement weather (rain, snow, fog, etc.)

  – Passing Trains

  or

  – Other physical conditions

- The lone worker has completed a written Statement of On-Track Safety, ARRC Form 23-0123P. When using ITD, the lone worker must produce the completed Statement of On-Track Safety upon request. This form must be discarded after use.

- You may not perform any work in a control point using a lone worker in ITD.

21.4.4 Train Approach Warning (TAW)

When roadway workers foul a track outside working limits, watchmen can provide On-Track Safety using train approach warning (TAW). TAW may be used to provide OTS when all the following conditions have been met:

- Each watchman is trained, qualified, designated, and equipped to provide TAW.

- A watchman can give warning of approaching train or roadway machinery in time to allow each roadway worker to move to a previously arranged place of safety at least 15 seconds before the arrival of the train or roadway machinery.

- Each roadway worker is in a position to receive the watchman's warning.

- Watchmen must devote their entire attention to detecting approaching trains or roadway machinery to provide warning to the roadway workers.

  – Watchmen may not be assigned other duties while functioning as a lookout.

  – Watchmen must remain at their lookout position until the EIC either determines that protection is no longer necessary or sends another watchman to relieve them.

  NOTE: The EIC may provide TAW by acting as the watchman as long as the EIC is not performing other duties.

- The watchman's method of communicating a warning is distinctive and can be clearly understood regardless of noise or work distraction. The method can consist of:

  – Giving a specific signal while sounding an audible warning,

  – Verbally communicating,

  or

  – Touching the roadway worker(s).

TAW can be used only to protect roadway workers and *may not* be used to protect track that is unsafe for train movement or to protect equipment occupying or fouling the track.

21.4.5 Flag Protection

Flag protection provided by flagmen can be used to establish OTS on any controlled or non-controlled track. When flagging on controlled track, *M.O.M.* Chapter 23 "Track Flagging" applies.

21.4.5.1 Responsibilities of Flagmen

Follow these responsibilities when performing the duties of a flagman:

1. Position yourself in a location where trains can observe your signals for a reasonable distance. Consider the following conditions:

   - Curves

   - Cuts

- Grade
- Background
- Weather conditions
- Any other condition that could impair visibility

2. Stop any train that approaches the protected area.
3. Remain at your post until the Employee In Charge instructs you otherwise.
4. Expect movement on track at any time in any direction.

21.4.6 Train Coordination

Train Coordination provides for men or equipment to use a train's authority to establish working limits. The employee must contact the train's engineer to request use of Train Coordination. To establish working limits:

- The train must be in view and stopped.
- The employee in charge of working limits will communicate with the engineer who will notify other crew members that working limits are to be established.
- The engineer will make movements only as permitted by the employee in charge until the working limits have been released to the engineer.
- The train will not release its authority within the limits until those working limits have been released by the employee in charge.

Establish Working Limits

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

A. TWC Territory

1. With a train having authority to move either direction that is not joint.

2. With a train having authority to move in one direction only, working limits must not be established:

- Behind the train.
- More than one block in advance of the train or beyond any location that a train or engine could enter the track between the Employee In Charge of the working limits and the train.

B. CTC Territory

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

2. With a train having authority to move in one direction only, working limits must not be established:

   - Behind the train.

   - More than one block in advance of the train or beyond any location that a train or engine could enter the track between the Employee In Charge of the working limits and the train.

21.4.7 Sharing Authority

To establish working limits with another roadway worker:

- The EIC must not have joint authority.

- The EIC must not protect more than four additional work groups.

- A Job Briefing must be held prior to coordinating in accordance with *M.O.M.* 21.3.1 (Job Briefing for Roadway Work Groups).

- The EIC will advise about authority-type and any limitations.

- The EIC must write the name of the sharing employee on the prescribed form.

- The sharing employee will repeat this information to the EIC.

- When the sharing employee clears the limits, the EIC must be notified and the EIC must write the time cleared on the prescribed form.

- Prior to releasing or restricting any part of the authority the EIC must job brief with all work groups sharing that authority to be certain the remaining authority limits will continue to protect established working limits for all work groups.

21.5 On Track Safety on Adjacent Tracks

On track safety on adjacent tracks can be provided as outlined in MOM 21.4, 21.4.2, 22.6.1 (On-Track Safety Procedures, Non-Controlled Track, Operating on Controlled Track). Protection must be provided on any adjacent track that will be fouled.

21.5.1 Job Briefings for Adjacent Tracks or Adjacent Controlled Tracks

Job briefings for adjacent tracks or adjacent controlled track must include:

- Type of on-track safety provided on adjacent track or adjacent controlled track.
- Designated place of safety where workers will clear for on track movements.
- Identification of roadway maintenance machines that will foul adjacent tracks or adjacent controlled tracks.
- A discussion on the work to be performed and characteristics of the work location.

21.5.2 Work Activities

Work activities must stop and Roadway Workers must move to the designated place of safety when notified of a movement on an adjacent track or adjacent controlled track until the movement has passed the Roadway Workers unless:

- There is an inter-track barrier installed between the occupied track and the adjacent controlled track

  or

- The EIC instructs the movement to pass at 25mph or less
- The work occurs between the gage of the occupied track and Roadway Workers and on-track equipment are spaced a minimum of 25 feet apart
- The work occurs on the field side of the rail of the occupied track furthest away from the authorized movement

  or

- The movement has stopped prior to passing the Roadway Workers and the EIC has communicated with the Engineer / Operator and has established that further movements will be made only as permitted by the EIC

21.5.3 Multiple Adjacent Tracks or Adjacent Controlled Tracks

When the occupied track is between adjacent tracks or adjacent controlled tracks and there is a movement on only one of those tracks work is permitted as described in Rule 21.5.2 Work Activities.

When movements are authorized on both adjacent tracks work activities must stop unless:

- The work occurs between the occupied track and an inter-track barrier and the EIC has authorized a speed of 25mph or less for the additional adjacent track

21.5.4 Roadway Machines and Adjacent Tracks or Adjacent Controlled Tracks

Roadway Machines working on an occupied track with an adjacent track or adjacent controlled track that are capable of fouling those tracks must cease all activities when notified of a movement on either track until the movement has passed unless:

- The machine has been physically restricted from fouling the adjacent track.

21.5.5 Roadway Machine Maintenance or Repair with Adjacent Tracks or Adjacent Controlled Tracks

Maintenance or repair of Roadway Maintenance Machines may be performed when:

- Maintenance or repair is limited to the side of the equipment opposite the authorized movement
- The equipment will physically prohibit the worker from crossing over to the side of the track where the movement will occur.

21.5.6 Protection for Additional Workgroups

The EIC may agree to protect additional work groups with or without equipment as long as:

- A job briefing is held in accordance with the requirements of Rule 21.5.1 Job Briefings for Adjacent Tracks or Adjacent Controlled Tracks
- The work is limited to inspection or minor correction
- The equipment is limited to a hi-rail vehicle or an automated inspection car and does not include a coupled car

- The work does not limit the ability of the Roadway Workers to see or hear approaching movements

21.6 Audible Warning From Trains

Trains must sound locomotive horn and ring bell when approaching roadway workers on or near the track, regardless of local whistle prohibitions.

To give trains advance notice of roadway workers on or near the track, each roadway worker fouling the track must wear company approved reflectorized striping on their hard hat.

21.7 Operating and Working Near Roadway Machines

21.7.1 Operating Machines Safely

Roadway workers who operate or work near roadway machines must comply with the following instructions in this chapter.

Operators of roadway machines must follow these instructions to operate their machines safely:

1. Keep the operator's manual, including instructions for safe operation and the owner's manual, with each machine.

2. If there is a question about the safe operation of the machine, do not operate the machine until the issue is resolved.

3. Comply with the rules in *M.O.M.* Chapter 22 "Operating Track Cars," and any applicable Engineering Bulletins or other instructions.

21.7.2 Moving Roadway Machines Within Working Limits

Operators of roadway machines must do the following:

A. When encountering a red flag, stop at the red flag. Do not proceed beyond the red flag until authorized by the EIC of the working limits.

B. When working limits are occupied by other employees or equipment, do not exceed 20 mph unless the EIC of the working limits authorizes a higher speed. This requirement is in addition to the requirement of being able to stop in less than half the range of vision.

C. If no red flag is displayed at the limit of a Track Bulletin Form B, roadway machinery must stop as required by the “STOP” column of the Form B. Permission must be obtained from the EIC before entering the working limits.

21.7.3 Work Zone Around Machines

A. Roadway Workers

Roadway workers must not enter a machine’s work zone without first communicating with the operator to establish safe work procedures.

Unless a different work zone is established in the job briefing, the work zone extends from a point 15 feet in front of the machine to a point 15 feet behind the machine.

NOTE: Some machines, such as cranes and ballast regulators, also require lateral or side clearance to ensure the safety of all roadway workers.

B. Roadway Machine Operators

Roadway machine operators must follow these requirements when operating around roadway workers:

1. If the machine is equipped with a horn or backup alarm, sound the horn (3 short blasts) or verify the alarm is sounding before making a reverse move.

2. If a move must be made of more than 15 feet, make sure the way is clear before making the move.

21.7.4 Safe Working Distance Between Machines

Unless a different distance is specified in the job briefing, keep at least 50 feet between roadway machines while working.

21.7.5 Safe Traveling Distance Between Machines

Keep at least 500 feet between roadway machines while traveling. See *M.O.M.* 22.12.1 (Following Trains and Other Track Cars).

EXCEPTION: When roadway machines need to “bunch up” to move over highway crossings, keep at least 50 feet between the machines.

When slowing down or stopping, comply with *M.O.M.* 22.12.1 “Following Trains and Other Track Cars.”

21.7.6 Tying Up Machines

Follow the requirements in *M.O.M.* 22.20 “Protecting Unattended Track Cars.” In addition, 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 off the side designated in the job briefing.

3. Stand beside the roadway machine and direct following machine(s) to a stop.

4. Do not go between machines until all machines have come to a stop or the EIC has given permission.

5. Secure equipment from roll out, if necessary place a portable derail in the derailing position or place a fixed derail in the derailing position. Whenever possible, portable derails must be placed at a location where they are clearly visible from the operators compartment of the protected equipment. Equipment nearest to the derail must have an “Attend to derail” tag placed on the operators controls while the derail is in use. **Note: Do not use an xx3x lock when roadway workers are not present and the derail is not being used for RWP purposes.**

21.8 Right to Challenge On-Track Safety

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

21.8.1 Responsibilities of the Alaska Railroad Corporation

The Alaska Railroad Corporation must:

1. Provide proper training for every roadway worker as outlined in this chapter.

2. 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 ARRC rules. Each employee has the right to remain clear of the track until the challenge is resolved.

3. Follow the procedure outlined in *M.O.M.* Chapter 21 (Roadway Worker Protection) to resolve challenges promptly and equitably.

21.8.2 Responsibilities of the Roadway Worker

Each roadway worker has the following responsibilities:

1. Follow ARRC On-Track Safety procedures.

2. Avoid fouling a track except when necessary to perform your duties.

3. 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 4 feet of the nearest rail.

4. Refuse a directive to violate an On-Track Safety rule and promptly notify a supervisor when the safety provisions to be applied at the job site do not comply with ARRC rules.

21.8.3 Resolving Challenges to On-Track Safety Procedures

Follow this procedure to resolve an On-Track Safety Challenge:

1. The roadway worker informs the Employee In Charge that they do not believe that the protection afforded roadway workers complies with ARRC On-Track Safety procedures.

   NOTE: Employees will not be subject to punishment for making a good faith challenge to On-Track Safety procedures.

2. The Employee In Charge reviews the On-Track Safety procedures with the employee to verify that the proper procedures have been applied.

3. If the employee making the challenge is still not satisfied that the On-Track Safety Procedures comply with ARRC rules, the Employee In Charge contacts the next level supervisor.

4. The next level supervisor reviews the On-Track Safety Procedures and determines whether the On-Track Safety procedures are being properly applied.

   - If the next level supervisor determines that the On-Track Safety procedures are not being properly applied, the Employee In Charge modifies the On-Track Safety procedures to ensure proper protection of employees.

- If the next level supervisor determines that On-Track Safety procedures are being properly applied, the challenging employee must perform the assigned duty. If the employee still refuses to perform the assigned duty, this activity may result in disciplinary action.

5. A designated manager will regularly review written documentation of all challenges made to the next level supervisor. A union representative will be invited to review these challenges with the designated manager.

6. Any recommendations for changes in ARRC On-Track Safety procedures resulting from the designated manager's review will be forwarded to the appropriate Vice President.

21.9 On-Track Safety Program Documentation

Follow these requirements:

1. If you are a roadway worker, have access to a copy of this chapter of the Safety Rules.

2. If you are a Qualified Employee, keep information contained in this chapter of the *M.O.M.* available for use on the job.

22.0 Operating Track Cars

See also Appendix--Hyrail Vehicle FRA Safety Checklist

21.10 Glossary of Terms

These definitions apply only to the provisions of On-Track Safety.

Adjacent Tracks – Two or more tracks with track centers spaced less than 25 feet apart.

Controlled Track – Track upon which the rules require that all movements of trains must be authorized by the train dispatcher.

Employee In Charge (EIC) – A roadway worker designated to provide On-Track Safety for one or more roadway work groups.

Exclusive Track Occupancy (ETO) – A method of establishing working limits on controlled track in which movement authority for trains and other equipment is restricted by the train dispatcher, placing track flags (*M.O.M.* Chapter 23 [Track Flagging]), or restricted by flagmen.

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

Foul Time – A method of establishing working limits on controlled track in which a roadway worker is notified by the train dispatcher that no trains or roadway machinery will operate within a specific segment of controlled track until the roadway worker reports clear of the track.

Fouling a Track – 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 nearest rail.

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 or hearing approaching trains or roadway machinery and leaving the track before they arrive.

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.

Non-Controlled Track – Track upon which trains are permitted by railroad rule or special instruction to move without receiving authorization.

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

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

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 machinery on or near track or with the potential of fouling a track.

Train Approach Warning (TAW) – A method of establishing On-Track Safety by warning roadway workers of the approach of trains in enough time for them to move to or remain in a place of safety.

Watchman/Lookout – An employee designated to provide warning to roadway workers of approaching trains or 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 having control over that defined segment of track. Working limits may be established through exclusive track occupancy, foul time, or inaccessible track.

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

22.1 Definitions

Track Car. In this chapter, the term *track car* (or *car*) applies to the following equipment:

- Hyrail
- Motor car

- Trailer
- Any on-track roadway maintenance machine.

Track Car Operator. In this chapter, the term *track car operator* (or *operator*) applies to the following employees:

- Operator of a track car
- Operator of equipment operating within 20 feet of a controlled track
- Employee providing On Track Safety (RWP) to a contractor.

22.2 Qualifications of Operators

Track car operators must be qualified as follows:

1. Pass the required physical and rules examinations.
2. Have a valid Alaska driver's license.

22.3 Responsibilities of Operators

Follow these precautions when operating a track car:

1. You are responsible for the proper use, condition, and protection of the track car.
2. Take every precaution to operate the track car safely at all times.
3. Inspect the track car for defects before each use.
4. Employees must ride only in designated seating areas.
5. If you are the only employee in the track car, face the direction of movement and occasionally look to the rear.
6. Complete the "FRA Daily Safety Checklist" before starting.

22.4 Inspecting Guide Wheels

When preparing a track car for rail operation, the operator must inspect the guide wheels as follows:

1. Check for:
   - Uneven or excessive wear of the guide wheels.
   - Guide wheel alignment.
   - Condition of safety pins and wearing parts

2. Check that the guide wheels and guide wheel assembly are in the proper alignment as follows:

   a. Lock the guide wheels in the onrail position.

   b. Lock the steering wheel in the straight-ahead position.

      NOTE: While the guide wheels are locked in the onrail position, do not try to turn the steering wheel.

   c. With the car on a level or flat stretch of track (not elevated or on a curve), check that the guide wheel flanges clear the rail and do not ride up or bind on the rail.

22.5 Occupying or Fouling Track

When occupying or fouling the track employees must provide authority or protection as follows:

- Rule 6.3 (Controlled Track Authorization)
- Rule 6.3.1 (Train Coordination)
- Rule 6.19 (Flag Protection)
- Rule 6.28 (Movement on Other Than Controlled Track)
- Rule 21.4.2 (Non-Controlled Track)`

22.6. Operating On Controlled Track

22.6.1 The following employees must obtain authority:

- Track car operator operating a track car on controlled track.
- Operator of equipment working within 20 feet of controlled track.
- Employee providing flag protection.

  EXCEPTION: Track car operators are not required to obtain authority when:

  - The track car is operating within yard limits.
  - The track car is operating on non-controlled track.
  - The track car or equipment is operating under the supervision of an employee who possesses another form of controlled track authority.

22.6.2 Train Activity Reports

- Train Activity Reports (TAR) will be issued to indicate known and projected train movements.
- Train Activity Reports are not authority to occupy controlled track, but are to be used as a guide for planning work.
- Trains may be operated at any times that are not shown on the current TAR.

22.7 Having Proper Signal Equipment

The track car operator must make sure the car has the proper flagging equipment readily available.

1. Make sure the track car has the following set of signal equipment:
   - 2 stop paddles
   - 2 red flags
   - 12 red fusees
   - 2 reflective vests

   NOTE: This set of flagging equipment is in addition to any track flagging equipment carried by employees on the track car.
2. Carry fusees in containers provided for that purpose.
3. If the track car damages or displaces a signal, replace the signal immediately.

22.8. Having a Copy of the Timetable

Each track car must have a copy of the current timetable.

22.9. Reviewing General Orders

The designated manager issues and cancels general orders that affect the safety and movement of trains, locomotives and track cars. These bulletins are posted at locations designated in the timetable and at locations where Engineering Department employees are headquartered or tied up.

Track car operators must review general orders as follows:

1. Review general orders and familiarize yourself with their contents.

2. Understand and comply with General Order information that affects your duties.

22.10 Movement of On-Track Equipment

22.10.1 Maximum Authorized Speed

Operate a track car at a safe speed as follows:

1. Operate the track car at a speed that allows you to stop in less than one-half the range of vision.
2. Consider the visibility, track conditions, weather, and anything else that might affect the car's safe operation.
3. If necessary, provide flag protection.

Operate at the following permitted speeds.

See table:

On-track equipment must not exceed the manufacturer's recommended speed or any of the following speeds, whichever is less.

Type of Track Car	Maximum Permitted Speed
Hyrail vehicle (Suburban, Jeep, Bronco, or Hyrail pickup truck)	35 mph
Other track car	25 mph
Any track car when passing over a switch or frog	15 mph
Any track car while in reverse	20 mph
Any track car while passing over an automatic switch	10 mph

Exception: Operate at a lower speed if recommended by the equipment manufacturer.

When determining the proper speed, take into consideration the following:

- Track conditions, such as grade, curvature and rail condition
- Load

- Sight distance
- Visibility

and

- Other conditions that might adversely affect the safe operation of on-track equipment

22.10.2 Approaching Road Crossings

When approaching and passing over a road crossing:

- Stop, if necessary.
- Provide protection against vehicle traffic, if necessary.
- Stop short of all signaled crossings. Do not assume it is safe to cross when the signals are functioning unless the signals have been activated by a Signal Department employee and that employee has communicated to you that the signals are active and it is safe to cross. *Exception: Equipment designed to activate signals, such as rail cars or Locomotive Cranes, will not be required to stop when the signals are functioning as intended.*

- It will be mandatory for all track cars (except Hyrails) to be flagged across the following road crossings:

  Anchorage:

  Spenard Road mp 111

  Arctic Blvd mp 109.4

  “C” Street mp 108.9

  International Airport Road mp J1.4

  Jewel Lake Rd. mp J1.2

  Fairbanks:

  University mp 467.6

  College Rd. mp G1.15

The following Highway Crossing Signals may be activated by on-track equipment operators using Dual Tone Multi-Frequency (DTMF) radio codes:

Anchorage

- C Street, MP 108.89 – Zone 1 Channel 04
- Arctic Boulevard, MP 109.39 – Zone 1 Channel 04
- Spenard Road, MP 111.00 – Zone 1 Channel 04

Fairbanks

- University Avenue, MP 467.51 – Zone 1 Channel 0
- College Road, MP G1.15 – Zone 1 Channel 04

Procedures for Operating DTMF Grade Crossings

- All employees involved must brief on the movements to be made at the applicable crossing and the lineup of equipment.
- Approach the highway grade crossing.
- The equipment must come to a complete stop at least 40 feet before the highway grade crossing.
- Select radio channel 12, press the numeric code for the applicable crossing, which is the DOT ID number (the six numbers only) posted on the crossing device, (located near the base of the device mast on either side of the crossing), and the automatic warning devices will activate.
- Observe the crossing gates are completely down (horizontal) and lights illuminated before initiating movement across the highway. Once the crossing devices are seen to be operating correctly, MOM Rule 22.10.2, Approaching Road Crossings, does not apply at these crossings.
- Move the on-track equipment across the highway to clear the crossing.
- The automatic warning devices will return to their quiescent state (crossing gates raised to the vertical position and lights extinguished) after the preset duration, which is approximately 45 seconds to one minute. Ensure the automatic crossing devices have returned to their quiescent state before leaving.
- If there are multiple pieces of on-track equipment moving together, and there is any doubt whether all of them can safely cross the highway crossing without the automatic warning devices returning to their quiescent state, each piece of equipment must enter the DTMF code before proceeding across the grade crossing. Re-entering the DTMF code will reset the automatic crossing device activation timer.

22.10.3 Operating at Safe Speed

1. When approaching a station crosswalk or platform occupied by passengers, stop before passing the crosswalk or platform and proceed only when the passengers are seen to be clear.

2. When approaching workers or other people on or near the track, reduce your speed and, if necessary, stop the track car.

3. Approach the following prepared to stop:

    - Highway crossing

- All switches
- Derail
- Defect detector

If the device is in the proper position for your movement, proceed.

22.10.4 Equipment Components Clear

Before passing over crossings, switches, derails and frogs, be sure all equipment components will clear.

22.10.5 Descending Grades

Do not permit on-track equipment to coast on descending grades.

22.10.6 Hyrail Vehicles

Only employees who have been qualified by a designated supervisor on the operation and maintenance of Hyrail vehicles may operate them.

22.10.7 Hyrail Operation

Hyrail operators must be familiar with and comply with the following:

- All applicable company policies involving highway motor vehicles.
- The company's and the manufacturer's instructions regarding inspection and maintenance of Hyrail vehicle before each use and complete the FRA safety checklist.
- When placing the Hyrail vehicle on or off track at road crossings, guard against highway vehicles using flags or flares if necessary.
- Do not attach unauthorized equipment to the Hyrail vehicle.

22.10.8 Operating on the Rail or Highway

Operating on the Rail

Before moving a Hyrail on the rail:

- Turn on the vehicle's headlights and amber roof light.

- Turn on the two-way radio, if so equipped, and check it periodically to ensure that it is working.

Operating on a Highway

Before operating a Hyrail vehicle on the highway, turn off the amber roof light.

22.11 Testing and Operating Brakes

Test and operate track car brakes as follows:

1. Immediately after starting the track car, apply the brakes and make sure they are working properly.

2. During the tour of duty, make emergency brake applications frequently to determine stopping distance.

3. Allow a greater distance and more time to stop when:

   - Pulling a heavy load.

   - Operating on oily, wet, frosty, or slippery rail.

22.12 Maintaining a Safe Braking Distance

On-track equipment operators are responsible for maintaining a safe braking distance between their on-track equipment and other on-track equipment, trains and engines.

22.12.1 Following Trains and Other Track Cars

In addition to operating under the provisions of 21.7.5 (Safe Traveling Distance Between Machines), follow these precautions when following a train or other track car.

1. Do not attach a track car (except a locomotive crane) to a locomotive or train.

2. Do not use a train to push a track car (except a locomotive crane).

3. Do not stop a track car within 200 feet of a standing train.

4. Do not operate a track car closer than 1,000 feet behind a moving locomotive or train.

5. Do not operate a track car closer than 500 feet behind a moving track car.

6. When operating behind another car, watch for signals from the car ahead, and be prepared to stop at all times, even if stop signal has not been received.

7. When operating ahead of another track car, give stop signals to following track car before stopping.

22.14 Watching for Back Up Train Movements

When operating a track car, watch for reverse train movements.

IMPORTANT: A train may make a back up movement for the length of the train at any time without providing protection. This may occur suddenly without warning in active avalanche zones.

22.15 Stopping at Red Flag

Follow these precautions when you see a red signal displayed on the right side of the track:

1. Stop the track car before the red signal.

2. Get permission to proceed from the Employee In Charge.

22.16 Display of Lights

If equipped with lights, on-track equipment will display a white light to the front and a red light to the rear.

When operating a track car, display amber roof light.

EXCEPTION: When a track car is on a siding and meets a train, dim or extinguish the headlights if possible. If headlights cannot be extinguished while in a siding to meet a train, try to notify the approaching train that the headlights may be displayed.

22.17 Replacing Displaced Signals

Employees operating on-track or off-track equipment must replace signals such as flags, fixed signals and signs if they are displaced or disturbed.

22.18 Escorting On-Track Equipment

Employees assigned as escorts are responsible for:

- Assisting the movement of equipment operated by employees, contractors, or other outside personnel unfamiliar with the territory.

- Obtaining the authority to occupy the track on which the equipment will operate.
- Copying the authorization onto the prescribed form, if required.
- Remaining at the location of equipment operation while the equipment is operated.

22.20 Protecting Unattended Track Cars

Follow these precautions to protect unattended track cars:

1. Do not leave a track car on a main track or controlled siding without protection.
2. Remove the cars from the track or place them clear of trains. Place cars at least 7 feet from the nearest rail.
3. Do not leave a car standing at a public or private crossing so that it interferes with highway traffic.
4. Avoid parking on track equipment within 250 feet of railroad crossing or auxiliary track.

22.22 Traveling or Working Alone in Extreme Weather Conditions

Follow these precautions when your duties require you to travel or work alone in extreme weather conditions:

1. Use the following check-in procedure to keep in touch with another employee by radio or telephone:
   a. Contact the train dispatcher or another employee. Tell this contact person:
      - Your current location
      - Your destination

      and

      - The time you will check-in again

   b. Check-in with your contact person at the designated time.

   NOTE: If your contact person does not hear from you at the designated time, attempts will be made to contact you and if unsuccessful, someone will be sent to find you.

2. When passing through a slide-zone where there is an avalanche risk, check-in with your contact person before entering the slide-zone and again after exiting the slide-zone.

3. Do not go out alone to dispatch or retrieve wildlife.

22.23 Handling Emergency Situations

In case of an imminent collision, do not try to save the track car or equipment at the cost of your own safety or the safety of others.

23.0 Track Flagging

23.1 Providing Flag Protection

When a controlled track is impassable or unsafe for movement at the prescribed speed, provide protection according to the rules in this chapter for placing flags.

23.2 Flags for Temporary Track Conditions

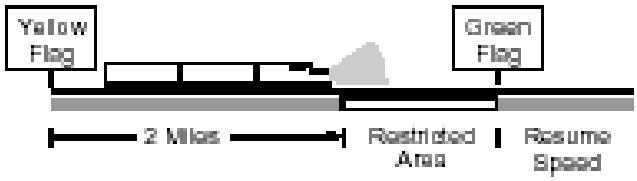
23.2.1 Temporary Restrictions

Track bulletins, mandatory directives, or general orders may restrict or stop train movement because of track conditions, structures, employees, or equipment working. Use yellow flags for temporary speed restrictions. Use yellow-red flags when a train may be required to stop.

23.2.2 Display of Yellow Flag

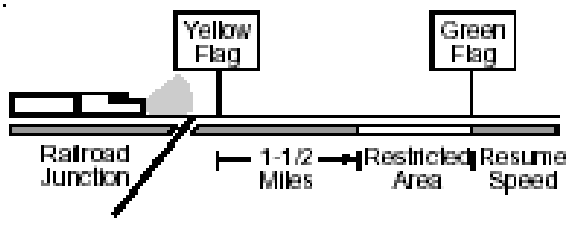
A. Restriction Specified in Writing

Two Miles Ahead of Restricted Area. Yellow flags warn trains to restrict movement because of track conditions or structures. To make sure train movement is restricted at the right location, display a yellow flag 2 miles before the restricted area.



[*Diagram A*. Displaying Yellow Flag 2 Miles Ahead of Restricted Area.]

Less Than 2 Miles Ahead of Restricted Area. When the restricted area is close to a terminal, junction, or another area, display the yellow flag less than 2 miles before the restricted area. Include this information in the track bulletin, mandatory directive, or general order.



[*Diagram B*. Displaying Yellow Flag Less Than 2 Miles Ahead of Restricted Area.]

Once the Train Reaches the Restricted Area. The train must not exceed the speed specified by mandatory directive, track bulletin, or general order until the rear of the train clears the restricted area.

B. Restriction Is Not Specified in Writing

When a yellow flag is displayed and the restriction is not specified by a track bulletin, mandatory directive, or general order, once the train is 2 miles beyond the yellow flag, crew members must:

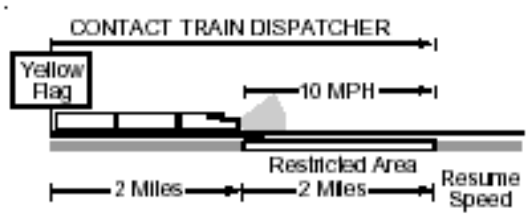
1. Continue moving the train at 10 mph or less.

2. Resume speed only after the rear of the train has:

   - Passed a green flag

     or

   - Traveled 4 miles beyond the yellow flag and the train dispatcher has verified that no track bulletin or mandatory directive is in effect specifying a temporary speed reduction at that location.

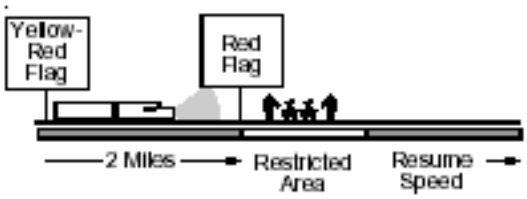


[*Diagram C*. Passing Yellow Flag With Restriction Not Specified In Writing.]

23.2.3 Display of Yellow-Red Flag

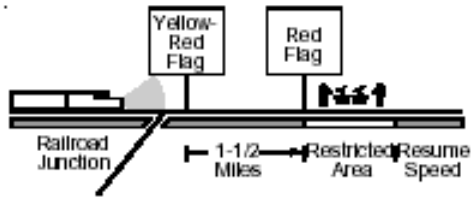
A. Restriction Specified in Writing

Two Miles Ahead Of Restricted Area. Yellow-red flags warn a train to be prepared to stop because of employees or equipment. To make sure the train is prepared to stop at the right location, display a yellow-red flag 2 miles before the restricted area.



[*Diagram D*. Displaying Yellow-Red Flag 2 Miles Ahead of Restricted Area.]

Less Than 2 Miles Ahead of Restricted Area. When the restricted area is close to a terminal, junction or other area, display the yellow-red flag less than 2 miles before the restricted area. Include this information in the track bulletin, mandatory directive, or general order.



[*Diagram E*. Displaying Yellow-Red Flag Less Than 2 Miles Ahead of Restricted Area.]

B. Restriction Is Not Specified in Writing

When a yellow/red flag is displayed and the restriction is not specified by a track bulletin, mandatory directive, or general order, crew members must be prepared to stop short of a red flag
2 miles beyond the yellow-red flag. If a red flag is displayed, proceed as outlined in *M.O.M.* Rule 23.2.5 (Display of Red Flag or Red Light). If no red flag is displayed:

1. Move at restricted speed.

2. Increase speed only after:

a. A crew member has received permission from the Employee In Charge.

   or

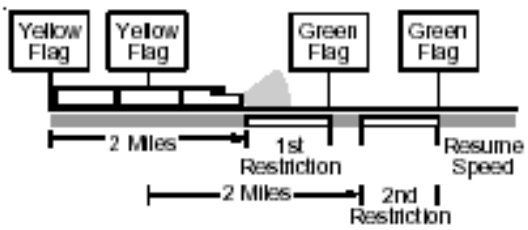
b. The leading wheels of movement are 4 miles beyond the yellow-red flag, and the train dispatcher has verified that no track bulletin or mandatory directive protecting men or equipment is in effect at that location.

23.2.4 Display of Green Flag

A green flag indicates the end of a restricted area. If a series of locations requires reduced speeds, the green flags could overlap yellow flags. When this is the case:

1. Employees must flag for each speed restriction.

2. Place green flag at the end of each restricted area.



[*Diagram F*. Displaying Green Flag at End of Restricted Area.]

23.2.5 Display of Red Flag or Red Light

A red flag or red light is displayed where trains must stop. When approaching a red flag or red light, the train must stop short of the red flag or red light and not proceed unless the Employee In Charge gives verbal permission. If the train receives permission to proceed before it stops, the train may pass the red flag or red light without stopping.

If Track Bulletin Form B is not in effect, permission must include speed and distance. The train must not exceed this speed until the rear of the train has passed the specified distance from the red flag or red light, unless otherwise instructed by the Employee In Charge.

Displayed Between Rails. When a red flag or red light is displayed between the rails of a track other than a main track or controlled siding, the train must stop and not proceed until the flag

or light has been removed by an employee of the class that placed it.

23.2.6 Flag Location

Display flags on the track affected and place these flags to protect all possible access to the restricted area.

Display flags to the right of the track as viewed from an approaching train. In multiple main track territory or where sidings are adjacent to main track(s), they will be placed on the field side of outside tracks. Place flags in this manner unless otherwise specified by track bulletin, mandatory directive, special instructions, or general order.

EXCEPTION: Red flags or red lights may be displayed between the rails as outlined in *M.O.M.* Rule 23.2.5 (Display of Red Flag or Red Light).

When flags are displayed beyond the first rail of an adjacent track, the flags will not apply to the track on which the train is moving.

23.3 Permanent Speed Signs

Place permanent speed signs in advance of permanent speed restrictions. Numbers on the face of these signs indicate the highest speed permitted over the limits of the restriction.

23.3.1 Two Sets of Numbers

When two sets of numbers are shown, the greater number governs the trains consisting entirely of passenger equipment. The lesser number governs all other trains.

23.3.2 Resume Speed Signs

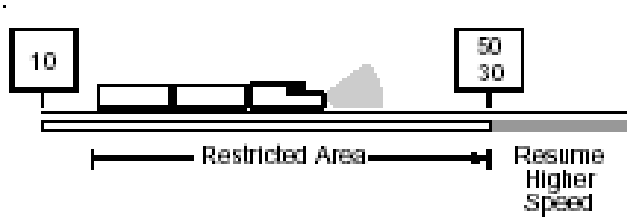
Place a permanent resume speed sign or a speed sign showing a higher speed at the end of each restriction.

Crew members must not exceed the speed shown on each permanent speed restriction sign until the rear of the train:

- Has passed a permanent resume speed sign or a sign showing a higher speed.

  or

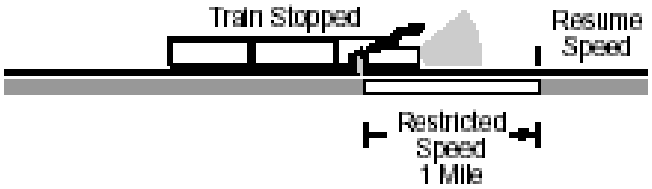
- Has cleared the limits of the restriction.



[*Diagram G*. Displaying Permanent Speed Restriction Signs.]

23.4 Unattended Fusee

If a train approaches an unattended fusee burning on or near its track, the train must stop consistent with good train handling.



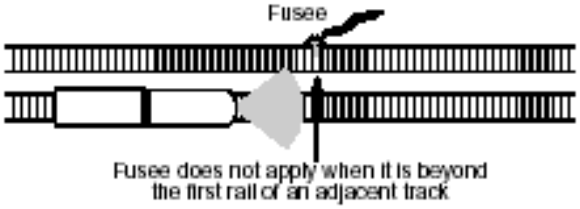
[*Diagram H*. Train Approaching Unattended Fusee.]

A train moving at restricted speed must stop before passing the fusee.

[*Diagram I*. Train Moving at Restricted Speed Approaching Unattended Fusee.]

After stopping, the train must proceed at restricted speed for 1 mile beyond the fusee.

If the unattended burning fusee is beyond the first rail of an adjacent track, the fusee does not apply to the track on which the train is moving.



[*Diagram J*. Train Approaching Unattended Fusee on Adjacent Track.]

Do not place fusees where they could cause fires.

A fusee is considered unattended when it is on the ground.

23.6 Placing Signals

23.6.1 Placing Flags

Flagmen (or persons responsible for flagging) must follow these requirements for placing flags when track is not protected by flagmen, track bulletin, mandatory directive, or general order:

1. Placing yellow-red and red flags to protect all possible access to the restricted area.

NOTE: See the track flagging diagrams (Diagrams K and L).

Track Flagging Examples

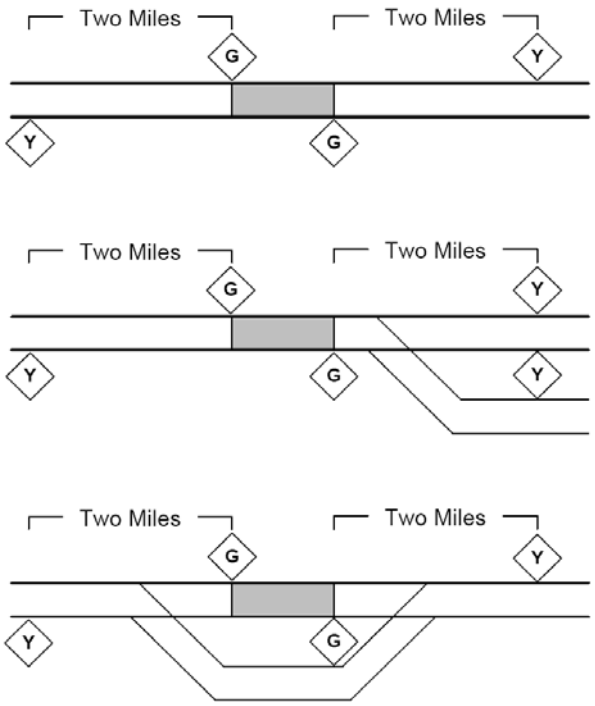
The following figures provide examples for protecting temporary speed restrictions and people or equipment working on or near the track. When reviewing these examples, keep in mind the following:

- They do not cover every situation.
- The distances shown are those specified by the rule.

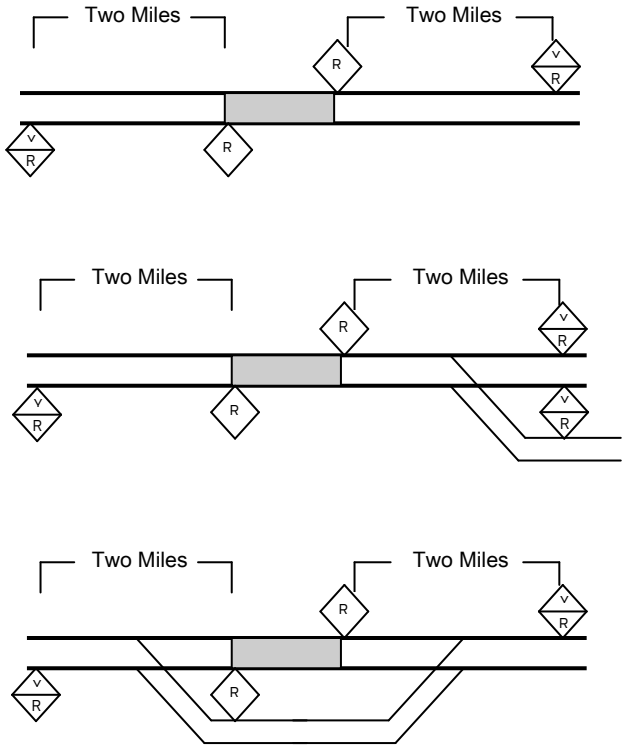
In multiple main track territory, when a restriction is placed on a crossover, no track flags will be displayed after the restriction is specified by track bulletin or mandatory directive. This information must be included on the track bulletin or mandatory directive.

Yellow and yellow-red flags will be placed 2 miles before each restriction with the exception of areas where flags cannot be placed 2 miles in advance and in certain situations at crew change points.

Track flagging diagrams appear on following pages.



[*Diagram K:* Track Flagging for Temporary Speed Restriction.]



[*Diagram L:* Track Flagging for Impassable Track.]

GLOSSARY

Abbreviations

Use only the following abbreviations:

AS ..... Absolute Signal

AUTH..... Authority

AWD ..... Automatic Warning Device

AWS……Automatic Whistle Warning System

BO……..Bad Order

BRN ..... Branch

CAD ..... Computer-Aided Dispatch

C & E ..... Conductor and Engineer

CLP…….Clearance Point

CNT ..... Connection

COFC ..... Container on Flat Car

CONDR .... Conductor

CP ..... Control Point

CS …… Controlled Signal

CTC ..... Centralized Traffic Control

DIC…….Dead in Consist

DISPR ..... Dispatcher

DIST ..... District

DIV ..... Division

EIC ..... Employee In Charge

ENG..... Engine

ENGR ..... Engineer

ETO .....Exclusive Track Occupancy

FP……Foul Point

FRT ..... Freight

GBO ... General Bulletin Order

HER..... Head End Restriction

IM ..... Intermodal

JCT..... Junction

MAX ..... Maximum

MMT ..... Multiple Main Track

MP ..... Mile Post

mph ..... Miles Per Hour (also “mph”)

MT ..... Main Track

MW..... Maintenance of Way

N..... North

NA ..... Not Applicable

NO ..... Number

NSS ..... North Siding Switch

NWD ..... Northward

NWDCS Northward Control Signal

NXO..... North Crossover

OK ..... Correct

OPR ..... Operator

ORIG ..... Originating

PSG …..... Passenger

RC ..... Radio Channel

RCO .....… Remote Control Operator

RCZ …….. Remote Control Zone

RECD ..... Received

RE ..... Region

RL ..... Restricted Limits

S ..... South

SDG..... Siding

SS ..... Station Sign

SSS ..... South Siding Switch

SUB ..... Subdivision

SUBDIV .... Subdivision

SUPT..... Superintendent

SW ..... Switch

SWD ..... Southward

SWDC……Southward Control Signal

SXO..... South Crossover

TB ..... Track Bulletin

TGBO ….Tabular General Bulletin Order

TOFC ..... Trailer on Flat Car

TRK ..... Track

TRN ..... Train

TSIA……Ted Stevens International Airport

TTSI…….Timetable Special Instructions

TWC ..... Track Warrant Control

UDE ……Undesired Emergency (train line air)

XO ..... Crossover

YL ..... Yard Limits

Use the normal abbreviations for names of months.

Glossary continues on next page.

Phonetic Alphabet

Phonetic Alphabet		
A = Alpha	**J** = Juliet	**S** = Sierra
B = Bravo	**K** = Kilo	**T** = Tango
C = Charlie	**L** = Lima	**U** = Uniform
D = Delta	**M** = Mike	**V** = Victor
E = Echo	**N** = November	**W** = Whiskey
F = Foxtrot	**O** = Oscar	**X** = X-ray
G = Golf	**P** = Papa	**Y** = Yankee
H = Hotel	**Q** = Quebec	**Z** = Zulu
I = India	**R** = Romeo	

Terms

Absolute Block – A length of track that no train is permitted to enter while the track is occupied by another train.

Absolute Signal – A block or interlocking signal without a number plate, or designated by an A marker.

Adjacent Tracks – Two or more tracks with track centers spaced less than 25 feet apart.

Adjacent Controlled Tracks – A controlled track whose track center is spaced 19 feet or less from the track center of the occupied track. This definition also applies to a non-controlled when it is spaced 19 feet or less from an occupied controlled track.

All Tracks – When used within a track bulletin line item, this indicates the bulletin applies to all CONTROLLED tracks within the specified limits.

Automatic Switch – A switch that, when movement over the switch is complete, will automatically return to its normal position.

Auxiliary Track – Any track other than a main track, a controlled siding.

Block – A length of track between consecutive block signals or between a block signal and the end of block system limits.

Block Signal – A fixed signal at the entrance of a block that governs trains entering and using that block.

Block System – A block or series of consecutive blocks within ABS, ACS, CTC, or interlocking limits.

Cars – Railroad cars.

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

Clearance Point - The location closest to a switch where it is safe for equipment, and a person riding the side of equipment unless prohibited, to pass equipment on an adjacent track.

Conductor – Employee in charge of train or yard movement (See also Remote Control Operators).

Control Operator – Employee assigned to operate a CTC or interlocking control machine or authorized to grant track permits. (**Dispatcher**)

Control Point – The location of absolute signals controlled by a control operator.

Controlled Siding – A siding within CTC or interlocking limits where a signal indication authorizes the siding's use.

Or

A siding within TWC that must not be occupied without authority or protection.

Controlled Signal – An absolute signal controlled by a control operator.

Controlled Track – A track that must not be occupied without authority or protection.

Crew Member – Conductors, assistant conductors, brakemen, engineers, remote control operators, yard engine foremen, switchmen, and yard helpers. For Roadway Workers it includes all employees assigned to a work group or in support of that group.

Crossings at Grade – Crossings that intersect at the same level.

Crossover – A track connection between two adjacent tracks, consisting of two switches, which is intended to be used primarily for the purpose of crossing over from one track to the other.

Distant Signal – A fixed signal outside a block system that governs the approach to a block signal or switch point indicator. A distant signal does not indicate conditions that affect track use between the distant signal and

block or between the distant signal and switch point indicator. A distant signal is identified by a D.

Double track – Two main tracks where the current of traffic on one track is in a specified direction and in the opposite direction on the other.

Dual-Control Switch – A power-operated switch, moveable point frog, or derail that can also be operated by hand.

Effective Locking Device – When used in relation to a manually operated switch or derail, a lock that can be locked or unlocked only by the craft or group of workers applying the lock. (XX3X Designated for Roadway Worker use)

Electric Switch Lock – An electrically controlled lock that restricts the use of a hand-operated switch or derail.

Employee In Charge (EIC) – A rules- qualified MW employee who is assigned the duty of being responsible for the protection and direction of his/her self and his/her co-workers in any engineering work activity.

Engine – A unit propelled by any form of energy or more than one of these units operated from a single control. Engines are used in train or yard service. Rules that apply to engines also apply to cab control cars.

Engineer – Also includes student engineers, firemen, hostlers, and remote control operators.

Equipment – Railroad equipment.

Equipment Fouling a Track - The end of rolling equipment or on-track maintenance of way equipment left between the clearance point and the switch points leading to the track on which the equipment is standing.

Escort – An employee familiar with the territory and assigned by the Employee In Charge to assist the movement of equipment operated by employees, contractors, or other outside personnel unfamiliar with the territory.

Exclusive Track Occupancy – A method of establishing working limits on controlled track in which movement authority for trains and other equipment is restricted by the train dispatcher, placing track flags (M.O.M. 23.2.3 Display of Yellow-Red Flag), or restricted by flagmen.

Fixed Signal – A signal that is fixed to a location permanently and that indicates a condition affecting train movement.

Flagman of Flagger – An employee providing flag protection.

Foreman – Employee in charge of work.

Foul of Track – Within 4 feet of the nearest rail of a track.

General Bulletin Order – A track bulletin.

Inter- Track Barrier – A permanent or semi – permanent continuous barrier that spans the entire work area at least 4 feet in height, sufficient in strength to prevent a Roadway Worker from fouling the adjacent track.

Intermediate Signal – A block signal that is not an Absolute Signal.

Industry Track – A track not in a Car Shop Repair Area or an Engine Servicing Area, where cars and equipment may be moved on the tracks for loading or unloading by someone other than a railroad train service employee. Note: The ownership of the track has no bearing on this definition, which includes team and ramp tracks.

Joint Authority – Occupying controlled track by more than one workgroup where each work group has been issued separate authority by the dispatcher

Lone Worker – A rules-qualified person not engaged in a common task with another person or group.

Lookout – A rules Qualified Employee assigned to warn roadway workers of approaching trains or on-track equipment.

Machine Operators – Operators of on- and off-track equipment.

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

Main Track Authorization – In the chapter “Operating Track Cars,” the term *authority* is defined as:

- *M.O.M.* Rule 10.3 (Track and Time)
- *M.O.M.* Rule 14.3 (Operating with Track Warrants)
- *M.O.M.* Rule 15.2 (Protection by Track Bulletin Form B)
- *M.*O.M. Rule 15.4 (Protection When Tracks Removed from Service)
- *M.O.M.* Rule 6.13 (Yard Limits)
- *M.O.M.* Chapter 20 (Foul Time)
- *M.O.M.* Instructions or General Order

Men or Equipment – A term referring to Engineering Department employees and their related equipment.

Minor Correction – One or more repairs of a minor nature such as spiking, anchoring, hand tamping or bolt replacement with hand or hand held non-combustion powered tools. Does not apply to welding, machine spiking, machine tamping or any other similarly distracting repair.

Multiple Main Tracks – Two or more main tracks that are used according to the timetable.

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

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

On-Track Equipment – Machines that may be operated on the rails. On-track equipment includes motor cars, push cars, trailers, Hyrail vehicles, cranes, tampers, power jacks, ballast shapers, brooms, trucks, and similar equipment.

Overlap Sign – A sign that indicates the limits of a block.

Pilot – An employee assigned to a train to assist an engineer or conductor who is unfamiliar with the rules or the portion of railroad the train will operate on.

Proceed Indication – Any block signal indication that allows a train to proceed without stopping.

Qualified Employee – An employee instructed and examined on the rules applicable to their duties.

Radio – As used in these rules, the term “radio” also applies to wireless communication devices when used in radio operation.

Radio Blocking – A method to establish an absolute block for a following train in non-signaled territory by direct communication with a preceding train.

Remote Control Operator (RCO) – An employee who may operate an engine with or without cars by means of a remote control transmitter.

Remote Control Zone (RCZ) – A portion of track(s) within definite limits designated in the timetable special instructions.

Reverse Movement – A movement opposite the authorized direction.

Shared Authority –shared authority refers to:

- Occupancy of a controlled track by an employee or work group where the authority has been granted by the train dispatcher to another EIC.
- Authority that has been issued by the dispatcher to an EIC and is used by more than one work group.

Siding – A track connected to the main track and used for meeting or passing trains. Location of sidings are shown in the timetable station column.

Signal Aspect – The appearance of a fixed or cab signal.

Signal Indication – The action required by the signal aspect.

Single Track – A main track where trains are operated in both directions.

Special Instructions – Instructions contained in the timetable or other publication.

Spring Switch – A switch with a spring mechanism that returns the switch points to the original position after they are trailed through.

Station – A place designated by name in the timetable station column.

Switch Point Indicator – A light type indicator used during movement over certain switches to show that switch points fit properly.

Switching Lead – An auxiliary track from which two or more auxiliary tracks diverge, used for classification or storage of cars, assembling, or breaking up of trains. This does not include tracks within an engine servicing area or car shop repair area.

Tabular General Bulletin Order – A collection of bulletins, created and addressed specifically to each train, which contains all subdivisions the train will traverse.

Timetable – A publication with instructions on train, engine, or equipment movement. It also contains other essential information.

Track Bulletin – A notice of conditions affecting train movement.

Track Car –The term track car (or car) applies to the following equipment:

- Hyrail
- Motor car
- Trailer
- Any on-track roadway maintenance machine.

Track Car Operator –The term track car operator (or operator) applies to the following employees:

- Operator of a track car
- Operator of equipment operating within 20 feet of a controlled track
- Employee providing On Track Safety (RWP) to a contractor.

Track Occupancy Indicator – An indicator that tells whether a length of track is occupied or not.

Trackside Warning Detector – A device that indicates conditions such as overheated journals, dragging equipment, excess dimensions, shifted loads, high water, or slides.

Track Warrant Control (TWC) – A method to authorize train movements or protect men or machines on a controlled track within specified limits in a territory designated by the timetable.

Train – One or more engines coupled, with or without cars, displaying a marker, and authorized to operate on a main track. A term that when used in connection with speed restrictions, flag protection, and the observance of all signals and signal rules also applies to engines.

Train Coordination – Working limits established by a roadway worker through the use of a train's authority on a controlled track or other track where specific authority is required from a control operator or train dispatcher.

Trainmen – Conductors, assistant conductors, brakemen, yard engine foremen, switchmen, and yard helpers.

Variable Switch – A switch identified by a "V" or a bowl painted yellow. When trailed through, the switch points remain lined in the position they were forced.

Whistle Quiet Zone - A designated portion of track, that includes road crossing(s) at grade where whistle signal (7) is not regularly sounded.

Working Limits – A segment of track within definite boundaries on which movements may be made only as permitted by the Employee In Charge. Boundaries may be established by using mile posts, station signs, timetable locations, or clearly identifiable points.

Yard – A system of tracks, other than main tracks and sidings, used for making up trains, storing cars, and other purposes.

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

APPENDIX

The following pages are printable versions of forms & checklists referred to in Operating Rules.

FRA Hyrail Vehicle Safety Checklist

This checklist is to be filled out before operating on a daily basis. It is to be available for inspection during the working shift and can be thrown away at the end of shift. Please check the available box. If “NO” is checked, the item needs to be repaired.

YES	NO	CHECKLIST
❒	❒	Is there and inspection tag located on the driver’s side visor?
❒	❒	Does this inspection tag show that the vehicle has been inspected in the last 12 months?
❒	❒	Does the Hyrail have a flagging kit on board?
❒	❒	Does the Hyrail have an operating backup alarm?
❒	❒	Does the Hyrail have an operable strobe light?
❒	❒	Does the Hyrail have an Operating Manual?
❒	❒	If a noncompliance condition has been found but could not be repaired, has the condition been tagged, dated, and reported to the Heavy Equipment shop at 265-2232?

To be answered if towing on the tracks:

YES	NO	CHECKLIST
❒	❒	Is the towing bar in safe condition and attached securely?
❒	❒	Can the Hyrail’s braking system safely stop the equipment being towed?

List any exceptions:

ARRC Hyrail: Location:

Inspected by: Date:

ARRC Hyrail Safety Checklist

Inspecting Guide Wheels

When preparing a track car for rail operation, the operator must inspect the guide wheels as follows:

1. Check for:
   - Uneven or excessive wear of the guide wheels
   - Guide wheel alignment
   - Condition of safety pins and wearing parts
2. Check that the guide wheels and guide wheel assembly are in the proper alignment as follows:
   a. Lock the guide wheels in the onrail position.
   b. Lock the steering wheel in the straight-ahead position.

      NOTE: While the guide wheels are locked in the onrail position, do not try to turn the steering wheel.
   c. With the car on a level or flat stretch of track (not elevated or on a curve), check that the guide wheel flanges clear the rail and do not ride up or bind on the rail.

Roadway Maintenance Machine FRA Safety Checklist

This checklist is to be filled out before operating on a daily basis. It is to be available for inspection during the working shift and can be thrown away at the end of shift. Please check the available box. If “NO” is checked, the item needs to be repaired.

YES	NO	CHECKLIST
❒	❒	Has an inspection been performed prior to operating?
		Are the following items in safe working order?
❒	❒	(a) Lights: head, work, and brake
❒	❒	(b) Horn and mirrors
❒	❒	(c) Fire extinguisher and first aid kit
❒	❒	(d) Back-up alarm and beacon
❒	❒	(e) Operator seat
❒	❒	(f) Working heater
❒	❒	(g) Windows free of cracks and not broken
❒	❒	(h) Turntable properly secured
❒	❒	Does your machine have a safe and secure position for each rider?
❒	❒	Is the light weight indicated on the machine?
❒	❒	Does the machine have an Operating Manual?
❒	❒	Is your machine equipped with the proper flagging kit?
❒	❒	If the machine is equipped with air conditioning or cab pressurization, is the system working?
❒	❒	Is the towing bar in safe condition and attached securely?
❒	❒	Can the machine’s braking system safely stop the equipment being towed?
❒	❒	If a noncompliance condition has been found but could not be repaired, has the condition been tagged, dated, and reported to the Heavy Equipment shop at 265-2232?

List any exceptions:

Machine ID#: Location:

Inspected by: Date: