

## **BNSF Railway Safety Vision**

We believe every accident or injury is preventable. Our vision is that BNSF Railway will operate free of accidents and injuries. BNSF Railway will achieve this vision through:

**A culture** that makes safety our highest priority and provides continuous self-examination as to the effectiveness of our safety process and performance...

**A work environment**, including the resources and tools, that is safe and accident-free where all known hazards will be eliminated or safe-guarded...

**Work practices and training** for all employees that make safety essential to the tasks we perform...

**An empowered work force**, including all employees, that takes responsibility for personal safety, the safety of fellow employees, and the communities in which we serve.

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## **Operations Testing Reference Guide**

In Effect  
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## Introduction

Operations testing is mandated by BNSF company policy. BNSF requires operational tests and inspections to determine the extent of compliance with rules, policies, instructions and general procedures specific to an employee skill set. Operations testing provide BNSF employees with the opportunity to demonstrate their ability to apply the rules and instructions in the work environment. Conducting quality operations testing communicates clearly to employees what is expected of them. By reviewing particular rule and instruction requirements in a field application, both the employee and the supervisor can gauge the level of rules proficiency.

The testing supervisor should use this process to verify that employees are working safely and in compliance with all company rules, policies, instructions and procedures. When expectations are not being met, this process allows for correction of operating deficiencies before those same deficiencies become incidents.

## Purpose Of This Document

This document is designed to provide guidance to aspects of Operations Testing from testing procedures to data entry for supervisors and managers. It will assist in the administering of Operations Testing on a system basis assuring employees an opportunity to demonstrate their knowledge of rules and instructions, while providing supervisors the opportunity to recognize proper rules application, and correct any deficiencies identified.

## Regulatory Compliance

The Operations Testing Program FRA regulatory compliance provisions are included in this document as Attachment A. The BNSF Railway operations testing program is designed to comply with Federal Regulations CFR §217.9, §217.11, and §218 subpart F.

BNSF Supervisors or Managers that receive any form of information from an authorized governmental agency regarding a violation or request for data related to operations testing must forward the information to the Division Manager of Safety, the Division General Manager or Mechanical Superintendent and the Senior Manager Operations Testing for review and handling.

All inquiries about the testing program or operations testing records by outside entities or officials will be responded to with the support of the Senior Manager of Operations Testing or their designee.

To ensure data integrity and consistency in reporting, all requests for operations testing data from FRA or authorized governmental agency will be coordinated through the Senior Manager Operations Testing unless otherwise directed.

The BNSF Railway Operations Testing Program is designed to comply with CFR 217.9. BNSF Supervisor's conducting operations tests must be qualified on operating rules associated with any tests they may conduct. Documentation of this program and the associated testing results are considered privileged and confidential information of BNSF. Records of testing will be retained according to the Operations Testing Program Policy and regulatory requirements.

The Senior Manager of Operations Testing is the designated officer responsible for the maintenance of the operations testing program. Division General Managers, Mechanical Superintendents, and Managers of Safety where so designated will be responsible for the operations testing program for their respective areas of responsibility. Periodic reviews will be the responsibility of these designated officers.

## Testing Safety

Operation testing is intended to be a positive experience for our employees. As a testing supervisor, you should regard these tests as an opportunity to verify that employees are working safely and in compliance with all rules, policies, instructions and procedures.

Before initiating an operations test that may affect train movement, the Train Dispatcher should be notified. Subsequent communication with the train dispatcher or control operator regarding testing activity should be made when practical to do so.

Operations testing should not create a hazardous condition for the general public, employees, or supervisors and test activity must be stopped when conditions present any safety concern.

Testing supervisors must be aware of all road crossings and exercise caution not to interfere with the proper operation of automatic crossing warning devices.

## General Requirements

Quality testing ensures supervisors are conducting tests at random periods throughout the entire month. Testing activities should be included on weekends and holidays. Selecting certain days for testing or performing a large number of tests at one time or location should be avoided. Where a location is a 24 hour operation, a proportional number of the tests should be conducted between the hours of 21:00 and 05:00.

## Operations Testing Authorization

BNSF policy requires supervisors meet established training requirements prior to being authorized to enter information in the operations testing database. To be authorized, the supervisor must:

- Complete initial examination and on-going training as required for rules associated with any tests they may conduct.
- Receive training as appropriate for tests they may conduct

A new supervisor to operations testing will complete the requirements listed in the “OPT New Supervisor Authorization” process. The new supervisor’s next level manager will then complete the form in this process for the new supervisor’s authorization request once the supervisor has met the requirements listed in this process.

Supervisors that already have OPT system access needing to update their status need to select and follow the process called “OPT Supervisor Status Update”. Supervisors who change jobs, locations, or division and / or group affiliations should complete this process and form.

The processes above can be found on the Operations Testing Web Site on the BNSF intranet:

<http://bnsfweb.bnsf.com/departments/operations/optesting/index.html>

Supervisors of foreign railroads with BNSF trackage rights may conduct testing of their own crews which will not result in train delay for their crews or other BNSF trains in accordance with that railroad’s testing program. These supervisors are encouraged to notify the appropriate BNSF Supervisor for the locations they will be making their observations. All foreign railroad supervisors must comply with applicable safety and PPE requirements while conducting supervisory observations on BNSF property. BNSF supervisors contacted should know when and where the foreign supervisors will be working on BNSF property.

Any foreign railroad supervisors who conduct testing of their crews and having potential result of train delay or other impact to train performance on BNSF property requires a qualified BNSF Supervisor to be physically present and leading the joint OPT observations. Results of all operations testing that is conducted jointly between foreign line supervisors and BNSF supervisors are recorded by BNSF supervisors in the BNSF OPT system.

## Testing Methods

Supervisors conduct operations testing (OPT) by observing work events. Observations can be performed at the time of the work event, or post event utilizing one or more technology tools.

Supervisors recording tests must enter one of the following codes representing the method of observation:

### **FLD** – Field

The supervisor conducts a field observation of work events. This is the traditional method of conducting tests through staged events or observations and recording results in the OPT system.

Field observations that are later confirmed using technology tools should still be recorded using FLD as the testing method code based on the fact that the original observation was made by field observation.

The use of binoculars, radar gun, etc. is considered an observational aid in support of field observations; the use of these tools is not considered a technology based observation.

### **CAM** – Camera

The supervisor using this testing method conducts observations using one or more remote cameras as the primary means to view the work event. Use of a camera may be either real time or historical.

NOTE: Supervisors should give due consideration in judging distances when using a camera.

### **TEC** – Technology Based

A Supervisor using one or more technology tools as the primary means of evaluating work events. Examples include:

- Audio recordings
- Traffic control system replays
- Locomotive event recorder downloads
- Log files

Use of technology based tools may be either real time or historical.

### **VER** – for Verbal Re-Test

This method is reserved for specific events where an employee failed to meet the requirements during a previous observation. The supervisor may evaluate the employee using this type of demonstrated test to assess understanding and compliance when observing the employee can not be performed under the same criteria in a timely fashion.

## Test Data Entry

Operations tests should be entered into the data system no later than five days after the test was performed.

The contact field is intended to represent employee contact at the time of the operations test.

- Enter a “Y” only when a testing supervisor has contacted the tested employee upon conclusion of the operations test.

**Note: Electronic notification is not considered “contact” when recording operations tests.**

- Enter “N” in the contact field if the employee is not contacted upon conclusion of the operations test.

The Division Code field (Div Code) will auto populate based on the subdivision entry. The testing supervisor should ensure this field accurately reflects the division on which the test was performed.

A maximum of five (5) supervisors may be recorded for any single test entry. The primary supervisor is responsible for tests entered into the system.

A test exception is recorded by entry of an Action Taken code. Available Action Taken codes are viewable during test entry using the help key while the cursor is located in the Action Taken field. Select the Action Taken code which best represents the corrective action taken with the employee regarding the failure.

Action Taken code “07 - Pending Officer Update” is used when further review is required in determining action to be taken with the employee. Action Taken “07” codes should be updated to a code most accurately describing action taken with the employee within 30 days of original test entry (unless formal investigation is pending, or there are other extenuating circumstances.) To update an action taken code “07” the supervisor should use the OPT main menu option # 2 called “Update Action Taken Code 07”

Foreign testing supervisors (such as FRA, PUC or other railroads) should be entered for all tests in which they participate. Procedures for entering foreign managers can be found on the Operations Testing web site / FAQ's.

## Employee Notification

The tested employee must be notified of the operations testing result. All operations test / audit failures (exceptions) must include employee contact at the first available opportunity.

Acceptable methods of a passing test notification are:

- Supervisor to employee face-to-face contact (preferred).
- Phone call and discussion, or radio notification to a crew member.
- Written letter or detailed and signed supervisor document.
- Electronic notification.

Acceptable methods of failure (exception) notification are:

- Supervisor to employee face-to-face contact (preferred).
- Phone call and discussion.



## Failure Handling

The “Failure Defined” section listed under each operations test in the Operations Testing Reference Guide is intended as a guideline for identifying and entering failures. The rules supporting the operations test should be referenced for determination of complete expectations.

Consideration of circumstances associated with the observation must be given prior to making determination of a failure (exception). The supervisor must determine whether the failure was due to lack of understanding of the rule requirement or as a result of a conscious decision to violate the rule.

When conducting testing that may involve CFR 49 Part 240 (Engineer Certification), the testing supervisor should ensure that an operating manager knowledgeable in handling this type of failure is available prior to conducting tests. Additionally, when failures of this type are recorded, the testing supervisor should contact the Manager Engineer Certification, Superintendent of Operating Practices, and the Road Foreman of Engines for that territory.

## Data Adjustment

If a record requires additional adjustment or possible removal complete the following form located on the Operations Testing website under ‘Modify / Purge Record’. Click the link provided:

<http://bnsfweb.bnsf.com/departments/operations/optesting/index.html>

The completed form will be automatically sent to mail box: “OPR DL OPS Testing” for processing. The request will be reviewed. An email confirmation of the modification / purge adjustment will be sent back to the originator once the request is processed.

## Testing Foreign Railroad or Contract Employees

When entering operations testing data on foreign railroad or contract employees, the employee name must be used including first initial and middle initial where applicable. If the tested employee’s name is not known, the test must not be entered until that information is secured from the foreign railroad or contractor that has jurisdiction.

Employees from foreign railroads or contractors operating on BNSF may be tested on the rules that would apply to them. Foreign railroads that are governed by the GCOR may be tested in the same manner as BNSF crews on GCOR rules with BNSF amendments.

- Foreign crews are governed by safety rules of the railroad from which they are employed, not BNSF safety rules. BNSF safety rules apply only when the testing manager has verified that the same safety rule is in effect on the foreign railroad.
- When a failure of a foreign employee or contractor on BNSF property is observed, the test entry is to be recorded in the operations testing database and notification of the failure reported to the foreign railroad or the contract employee’s supervisor within five (5) days of the discovery of the testing exception.

When Amtrak trains operating over BNSF territory are involved in a failure to properly sound the whistle, the testing supervisor is to contact the Passenger Operations Team at (817) 234-7332 or 800-871-0902, who will handle with the appropriate Amtrak Managers.

## Specific Test Information

TY&E Deadly Decisions - 101, 102, 103, 104, 105, 106, 107 and 108.

Engineer Certification Tests \* - 201, 202, 203, 204, 205, 206, 207, 208, and 209.

Mechanical - 300 through 349.

Engineering - 350 through 399.

Signal - 376, 377 and 378.

Telecom - 400 through 450

Dispatcher / Control Operator – 500 through 599

\* Indicates test is a qualifying test for engineers under CFR 49 section 240. When qualifying tests observations are conducted on employees who are certified engineers, but not working in the capacity of engineer, they must be physically at the throttle of the engine when test is performed and must be entered using job code 01. For example: If a conductor who holds an engineer certificate is given a qualifying test under the requirements of CFR 49 section 240, enter at least one qualifying test using job code 01 instead of job code 03, provided that employee is at the throttle of an engine when the test was performed.

## Operations Tests

### 101 Getting On or Off Moving Equipment

#### OBJECTIVE

This test determines if employee complies with the requirement for getting on or off moving equipment.

#### APPLICABLE RULES

Safety Rule S-13.5, MWOR Rule 6.53.

#### PREPARATIONS / PROCEDURES

This test can be conducted at any location employee's duties require getting on or off railroad equipment. This test only applies to employees that have been in a position to get on/off moving equipment.

Verify that employees do not get on or off moving equipment except in emergency.

#### FAILURE DEFINED

This test is a failure when an employee gets on or off moving equipment, unless otherwise authorized or in the event of an emergency.

### 102 Going Between or Working on the End of Rail Equipment

#### OBJECTIVE

This test determines that crew members comply with the procedures for going between or working on the end of rail equipment.

#### APPLICABLE RULES

Safety Rule S-13.1.1; SSI Item 23(A) Part C.

#### PREPARATIONS / PROCEDURES

This test can be conducted where crew members are required to go between or work on the end of cars or locomotives.

Going between or working on the end of rail equipment includes coupling air hoses, application or removal of hand brakes, opening knuckles, opening or closing angle cocks or any other activity that places an employee's body between equipment. Proper use of the uncoupling lever, operating a side-mounted hand brake, or operating a step well mounted angle cock on a locomotive are all examples that do not require an employee to be positioned between or on the end of equipment.

**102-1** If a locomotive is coupled to the rail equipment:

- Verify that the crew member going between or working on the end of equipment uses the required radio or hand signal to notify the engineer and/or all other crew members.
- Verify that the crew member going between or working on the end of equipment waits until all movement of equipment has stopped and the slack has adjusted before going between or beginning work.
- Verify that the engineer has waited for the movement to stop and acknowledged by radio stating "Set and Centered" or by whistle signal (1 long) that a crew member will be going in between or working on the end of equipment. When the engine is coupled to the equipment which is not to be moved, verify that the engineer centers the reverser and fully applies the independent brakes before acknowledgment is made.

**102-2** If the locomotive is NOT coupled to the rail equipment:

- Verify that crew member notifies all other members of the crew by radio that he or she will be going between or working on the end of rail equipment on any track after ensuring the equipment is stopped.
- Verify that all members of the notified crew acknowledge by radio that they understand a crew member will be going between or working on the end of rail equipment.

#### **FAILURE DEFINED**

This test is a failure under the following conditions:

**102-1** Locomotive coupled to equipment:

- When crew members do not notify engineer by required radio or hand signal when going between or working on the end of equipment.
- When engineer does not acknowledge by required radio communication or whistle signal.
- When crew member does not wait for engineer acknowledgment prior to going between or working on the end of equipment.
- When crew member does not wait for equipment to stop and slack to adjust prior to going between or working on the end of equipment.
- When engineer does not center reverser and fully apply the independent brakes before acknowledgment is made.
- When crew member goes between uncoupled locomotives or cars when clearance between them is less than 50 feet, unless otherwise exempted.
- When remote control operator fails to notify other crew members before going between or working on the end of equipment.

**102-2** Locomotive NOT coupled to equipment:

- When crew member does not notify all crew members by radio before going between or working on the end of equipment.
- When all crew members do not acknowledge by radio communication before going between or working on the end of equipment.
- When crew member goes between uncoupled locomotives or cars when clearance between them is less than 50 feet, unless otherwise exempted.
- When RCO operator fails to notify other crew members before going between or working on the end of equipment.
- When a crew member goes in between or works on the end of equipment on any track where RCO locomotive is moving.

#### **DATA REPORTING**

Enter "Y" in the RCO field if observations involved Remote Control Operations.

When prompted to enter a "Rule Book Code", enter "S"; then when prompted to enter a "Rule Number" enter the appropriate segment code for the observation made (102-1 or 102-2).

## 103 Minimum Separation of 50' Between Equipment—ETD, Couplers, Knuckles

### OBJECTIVE

This test is conducted to determine that employees are in compliance with rules that requires 50 feet of separation.

### APPLICABLE RULES

Safety Rules S-13.1.11 (TY&E employees only), S-13.2.4 and S-13.2.5 (all employees).

### PREPARATIONS / PROCEDURES

This test can be conducted any time employees are engaged in the activity of installing ETDs, adjusting mismatched couplers or replacing knuckles.

### FAILURE DEFINED

The test is a failure any time an employee is observed performing the activities described above without providing the minimum separation between equipment as prescribed by the rule.

Note: Do not enter an observation for this particular OPT (pass or fail) when the distance between uncoupled locomotive or car is less than 50 feet for a train on main track or siding and:

- The equipment is not able to be moved safely
- All practical means of complying with the 50 feet requirement have been exhausted.

## 104 Riding Equipment

### OBJECTIVE

This test is conducted to determine that when employees ride cars or equipment in the performance of duties, they do so in accordance with the rules and reinforces that employees do not ride or knowingly allow others to ride when prohibited.

### APPLICABLE RULES

Safety Rule S-13.1.5

### PREPARATIONS / PROCEDURES

Observe that employees ride cars or equipment only if necessary and when they can do so safely.

When employees have elected to ride cars or equipment verify the following:

**104-1** Employees only ride when safe and necessary and in accordance with existing rules including:

- Not riding the end platform when restricted
- Not riding the brake platform (except to release / apply hand brake during gravity switch move)
- Not riding the coupler apparatus, center sill, side sill, end sill, or framework
- Not riding inside a car loaded with materials susceptible to shifting upon slight impact

**104-2** Employees are not riding or knowingly allowing others to ride cars or engine exterior on tracks where the track condition cannot clearly be observed because of debris (e.g. snow, ice, water, grain, mud, etc.) particularly at road crossings. Employees are riding when these track conditions exist only when the locomotive precedes their movement.

**104-3** Employees are not riding cars when prohibited due to close/no clearance restrictions. Employees also do not knowingly allow others to ride equipment at the location where close/no clearance exists.

**FAILURE DEFINED**

This test is a failure when:

- 104-1** Employee is observed riding equipment in a location or position prohibited (e.g. end platform when restricted), brake platform (except to release or apply the hand brake during a gravity switch move), coupler apparatus, center sill, side sill, end sill, framework or inside car with materials susceptible to shifting upon slight impact.
- 104-2** Employee is observed riding cars or engine exterior, or knowingly allows others to ride on portion of tracks where the track condition cannot clearly be observed because of debris (e.g. snow, ice, water, grain, mud, etc.), prior to the locomotive preceding movement.
- 104-3** Employee rides cars or equipment or knowingly allows others to ride when prohibited due to close/no clearance restrictions.

**DATA REPORTING**

Enter "Y" in the RCO field if observations involved Remote Control Operations.

When prompted to enter a "Rule Book Code", enter "S"; then when prompted to enter a "Rule Number" enter the appropriate segment code for the observation made (104-1, 104-2 or 104-3).

If the exception is the result of one employee allowing another employee to ride when prohibited or restricted enter "employee allowed another employee to ride car" in the 'Notes' section.

## 105 Employee Fouling Tracks

**OBJECTIVE**

This test is conducted to determine that employees do not foul the track unnecessarily without taking the proper precautions.

**APPLICABLE RULES**

GCOR 1.1.2, GCOR 1.3.3, GCOR 1.20; TY&E Safety Rules S-1.1, S-1.2.3, S-1.2.6, S-1.6.1, S-13.1.3, and notices or other local instructions

**PREPARATIONS / PROCEDURES**

This test can be conducted when employees are near or crossing a track.

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

Observe that employees do not walk between the rails or foul the track except when duties require and proper protection is provided. Observe that employees are a sufficient distance from or ahead of equipment to cross tracks safely while walking or occupying a vehicle.

Observe that employees comply with warning signs and/or local instructions pertaining to the operation of/riding in a vehicle near the track.

**FAILURE DEFINED**

The test is a failure when employee(s):

- 105-1** Walk between the rails of a track or foul a track unnecessarily (Employee is not in a vehicle)
- 105-2** Operating a vehicle, stop on a track or foul of the track unnecessarily, or do not comply with a posted stop sign prior to crossing the track
- 105-3** Do not comply with local instructions relating to crossing a track or fouling a track while in a vehicle.

**DATA REPORTING**

When prompted to enter a 'Rule Book Code' enter "X", then when prompted to enter a 'Rule Number' enter the appropriate segment code for the observation based on the criteria listed above under 'Failure Defined'. The entering supervisor or manager is encouraged to use the free form 'Notes' field to further explain the observation, including reference to local instructions where applicable.

## 106 Running in the Performance of Duties

### OBJECTIVE

This test determines that except in emergency, employees do not run in the performance of duty.

### APPLICABLE RULES

S-1.5.3, S-13.2.2

### PREPARATIONS / PROCEDURES

This test can be conducted anywhere employees are working.

Verify that employees do not run in the performance of duty.

### FAILURE DEFINED

This test is a failure when employees run in the performance of duty, except in an emergency.

## 107 Riding Freight Cars to a Joint

### OBJECTIVE

This test determines that all safety rules and policies are followed when an employee couples freight cars.

### APPLICABLE RULES

Safety Rule S-13.1.5

### PREPARATIONS / PROCEDURES

This test can be conducted anywhere employees are engaged in the movement of freight cars.

- Observe movement stopped short of coupling and coupling is completed from the ground.
- Observe that crew member stands in the clear when coupling freight cars.
- Observe employee uses safety stop where required (passenger and roadrailer service).
- Observe that when employee opens a knuckle, the uncoupling lever is used and feet are kept clear of the area under the knuckle.

### FAILURE DEFINED

The test is a failure when crew member:

- Completes coupling of freight cars while riding equipment.

Note: Riding the step or platform of a locomotive to a coupling is an exception but should be recorded under OPT 699 S-13.1.5 and is not a Deadly Decision for OPT 107.

## 108 Shoving Movements

### OBJECTIVE

This test is designed to measure employee compliance with operating rule requirements when conducting shoving movements. Primary focus is to determine that employees are in position to properly protect the entire movement, communicate instructions in the prescribed manner and properly apply components of Restricted Speed or Other Than Main Track rules where applicable.

### APPLICABLE RULES

GCOR 5.3.3, 6.5, 6.27, 6.28

### PREPARATIONS / PROCEDURES

This test may be conducted any time employees are engaged in a shoving movement and are not relieved of providing visual protection. Be sure to monitor the proper radio channel.

- 108-1**
- Ensure the employee is in position to properly protect the movement
  - Position yourself so that you will be able to visually observe the employee protecting the movement
  - Ensure that the crew has is not relieved of providing visual protection. Examples include:
    - Track equipped with shove lights, cameras or other technology and instructions for their use.
    - Special instructions specific to the track involved
    - Rule 6.6 (Picking up Crew Member)
    - Pullout move within an activated Remote Control Zone (RCZ)
  - While shoving movement is taking place, determine that employee protecting the movement is not engaged in any task unrelated to the movement.
- 108-2**
- Determine that all crew members involved in the shoving movement have conducted a job safety briefing prior to starting the movement. The briefing must include who is protecting the movement and how protection will be provided (may be done by radio or face to face).
  - If radio is used to provide communication during the shoving movement:
    - Monitor that distance to be shoved is communicated, using car counts, prior to the start of a shove movement, using 50 ft. as standard for one car
    - Monitor that minimum continuous communication is maintained between employee protecting the shoving move and the employee at controls of locomotive
    - Monitor that direction is described in relationship to the front of the controlling locomotive (F stencil). For forward movements, employee to use “ahead”. For backward movements, employee to use “backup”
    - Monitor that employee at controls of locomotive acknowledges specific instructions related to shoving movement, prior to initiating movement and repeats car counts when making a continuous movement when distance communicated is greater than four cars



- 108-3** • Where applicable, determine that the speed of the shoving movement will allow stopping within half the range of vision (as viewed by the employee protecting the shove), short of:
- Train
  - Engine
  - Railroad car
  - Men or equipment fouling the track
  - Stop signal
  - Derail or switch lined improperly
  - Monitor that movement is stopped within half the previous distance communicated if additional communications are not received
  - Monitor that employee at controls of locomotive stops the movement if employee providing hand signals or the light being used to protect shoving movement disappears from view

#### **FAILURE DEFINED**

This test is a failure when:

- 108-1** • Employee fails to provide protection for a shoving movement when required
- Employee providing protection does not maintain a position to observe the leading end of the movement for continuous protection
  - Employee providing protection engages in a task unrelated to the shoving movement (e.g. reading a switch list, lining a switch, operating a vehicle, etc.)
- 108-2** • Employees initiate movement without knowledge of who and how shoving movement protection will be provided (prior to recording an exception, verify if requirement was previously satisfied, such as a face to face briefing)
- Movement is initiated without a known distance for a shoving movement, provided in car counts, using 50 ft. as standard for one car length
  - Continuous minimum car counts are not provided
  - Movement is initiated without using prescribed terms “ahead” or “backup”, and in proper relationship to the ‘F’ stenciling on the controlling locomotive to communicate direction
  - Employee at controls of locomotive does not acknowledge specific instructions related to a shoving movement prior to initiating movement or does not repeat car counts when making a continuous movement when distance communicated is greater than four cars
- 108-3** • Where required, employees engaged in shoving movements fail to maintain a speed that will allow stopping within half the range of vision, short of:
- Train
  - Engine
  - Railroad car
  - Men or equipment fouling the track
  - Stop signal
  - Derail or switch lined improperly
  - Employee at controls of locomotive fails to stop the movement in half the distance specified when additional instructions are not received
  - Employee at controls of locomotive fails to stop the movement when crew member providing hand signals or the light being used to protect a shoving movement disappears from view

Note: Consideration should be given to operating conditions such as track geometry (e.g. curvature, grade and other physical conditions) including weather or other conditions that may affect visibility and ability to control and stop the move.

**DATA REPORTING**

Enter “Y” in the RCO field if observations involved Remote Control Operations.

When prompted to enter a “Rule Book Code”, enter “G”; then when prompted to enter a “Rule Number” enter the appropriate segment code for the observation made (108-1, 108-2 or 108-3).

Notes:

If maximum authorized speed for shoving is verified, such as through use of a radar device or locomotive event recorder, record OPT 601 in addition to OPT 108.

If a banner is used to stop movement, record OPT 207 in addition to OPT 108.

If a flagman, red track flag or red light is used to stop movement, record OPT 201 in addition to OPT 108, or OPT 204 when operating under 6.27 (Restricted Speed) in Block System limits.

If an employee uses any word other than “STOP” at the end of a shove, record as an operations test exception under OPT 603 using segment 603-2.

When radio is used during shoving movements, testing officers are encouraged to recognize and reinforce best practices when employees are providing additional information (e.g. switch / derail position, close clearance conditions, stop signals, authority limits, etc.) beyond minimum requirements as outlined in applicable rules.

**201 Movement Prepared to Stop****OBJECTIVE**

Movement Prepared to Stop determines that a train or engine stops as required when operating under Rules 6.27 or 6.28, or where Rule 6.16 is applicable. This test is to be used when movement is required to stop by a rule other than a block system rule covered in OPT 204.

Note: When stopping trains / engines using a Stop Banner use OPT 207 and not OPT 201. Use OPT 601 when recording a speed check only under Rule 6.27 or 6.28 AND no stop test is conducted.

**APPLICABLE RULES**

GCOR 5.4.7, 5.6, 6.4, 6.4.1, 6.13, 6.14, 6.15, 6.16, 6.27, 6.28, 9.15.1, 10.3.3, 14.4, 14.5, 18.1

**PREPARATIONS / PROCEDURES**

This test may be conducted:

- Under any condition where movement at restricted speed or movement on other than main track is required except block system rules covered by Test No. 204.
- Select the location where the train or engine is to be stopped well in advance of the arrival time.
- Sound judgment should be used to select a safe location for the testing managers and crew.
- Ensure the Stop Sign is properly displayed when observing the stop under Rule 6.16 in advance of the train or engine’s arrival.
- Use a flagman to give a stop signal. The flagman must be easily seen and in the desired stop position in advance of the train or engines arrival.
- Use a red track flag, clip on track flags, or a red light at night, on any track where 6.28 is in effect.
- Observe a train or engine moving under Rule 6.27 stops short of a standing train.

- Use of a hand signal that requires a movement to stop may be used only where Rule 6.28 governs. Testing managers should limit the use of this provision to movements such as yard engines and hostlers operating on yard or industry tracks, and in mechanical servicing areas.
- Observe a train or engine stops short of a stop sign protecting a Railroad Crossing governed by GCOR 6.16.
- Observe the train or engine stops short of a red track flag or red light at the entrance to Form B limits when permission has not been provided by the employee in charge (EIC) to proceed without stopping.

Note: This test may not be conducted by a testing supervisor on board the train.

#### **FAILURE DEFINED**

The test is a failure when:

- Train or engine fails to stop short of any item listed in Rule 6.27 or 6.28.
- Train or engine fails to stop short of a Railroad Crossing Stop sign.
- Train or engine fails to stop short of a red flag or red light unless the employee in charge (EIC) gives verbal permission to proceed without stopping.

## **202 Blue Signal—Trains**

### **OBJECTIVE**

The Blue Signal Test verifies that equipment is not coupled to or moved while under blue signal protection. In addition, the test determines that blue signals are not passed by trains or engines.

### **APPLICABLE RULES**

GCOR 5.13

### **PREPARATIONS / PROCEDURES**

Select a location where blue signal protection has been established.

On any track:

1. Verify that equipment protected by blue signal is not coupled to or moved.
2. Verify that trains, engines or equipment do not enter a track protected by blue signal until protection has been removed, and employees warned, where required.
3. Verify that controls on locomotive have not been changed.

Note: This test may not be conducted by a testing supervisor on board the train.

### **FAILURE DEFINED**

The test is a failure if Train, Engine & Yard personnel allow the train or engine to pass a blue signal on a track protected by that signal, couple to or moves rolling equipment displaying blue signal, or changed any controls on locomotive where blue signal protection has been established.

## 203 Dark Signal

### OBJECTIVE

The Dark Signal Test monitors alertness of crews to recognize a signal improperly displayed. This test can be conducted on all crew members riding in the controlling cab of locomotive or the person on the leading car, when shoving.

### APPLICABLE RULES

GCOR 1.47, 5.15, 9.4, 9.5

### PREPARATIONS / PROCEDURES

- Testing manager must verify that no trains, engines or men and equipment are within the block being protected by the dark signal to be tested.
- Contact the train dispatcher or chief dispatcher advising your plans prior to setting up the test. Testing Manager must be assisted by a Signal Supervisor (or a designated representative) unless the signal system has been designed to allow for manual manipulation (i.e. key control) by the testing supervisor.
- Prepare for the test by requesting a Signal Supervisor (or designated representative) to set-up the “dark” signal at a location other than a grade signal. This process should include verification that the signal displays a red aspect before it is darkened unless the signal is equipped with a key control for that purpose.

After the necessary preparations have been made:

- Observe and confirm signal indications in advance of the dark signal display the appropriate signal sequence for the territory being tested or the applicable rules require a stop at the next signal.
- Observe the train or engine stops short of the dark signal. A manager must remain at the dark signal able to stop any train not complying with the signal.
- Speed compliance from point of stop throughout the remainder of the block may be checked by radar speed measuring device or event recorder data. Speed checked can be entered as a 601 test.

Note: This test may not be conducted by a testing supervisor on board the train.

### FAILURE DEFINED

The test is a failure when the train or engine crew does not stop before passing the dark signal.

## 204 Block System Rules-Restricted Speed—Stop

### OBJECTIVE

The Block System Rules-Restricted Speed-Stop Test determines that a train or engine crew is in compliance with Rule 6.27, Restricted Speed, when this movement is required to stop by block system rules under any one of the following conditions:

- When proceeding from either a Stop, Stop and Proceed or Restricting indication.
- When in Yard Limits and proceeding on a signal not displaying more favorable than Approach as its aspect.
- When entering main track where there is no governing signal.
- When in ABS territory and delayed within a block.

Note: This test is not to be used to record speed only, use Test 601. When stopping a train or engine with a banner, record the testing event under Test 207.

**APPLICABLE RULES**

GCOR Rules 9.1.13, 9.1.14, 9.1.15, 9.9, 9.10, 9.12, 9.13

**PREPARATIONS / PROCEDURES**

Select the location where the train or engine is to be stopped in advance of the expected arrival time. Determine that the train or engine is required to move at Restricted Speed at this location.

1. Use a flagman to give the stop signal. The flagman should be easily seen and in place well in advance of train or engine's arrival.
2. Observe that the train or engine stops short of a train or cut of cars ahead.

Note: This test may not be conducted by a testing supervisor on board the train.

**FAILURE DEFINED**

The test is a failure when train fails to stop short of a flagman or fails to stop short of a train or cut of cars.

## 205 Block Signals—Stop

**OBJECTIVE**

The Block Signals-Stop Test determines that crew members comply with all rules governing stopping for block signals displaying a Stop Indication.

**APPLICABLE RULES**

GCOR 9.5, 9.12.1, 9.12.2, 9.12.3, 9.12.4, 9.1.15

**PREPARATIONS / PROCEDURES**

1. Coordinate your plans to conduct this test with the chief dispatcher or train dispatcher.
2. Request the Signal Supervisor (or designated representative) to set up the Stop indication in CTC territory or request dispatcher to hold the signal at Stop. If in ABS territory, shunting the track is permissible, however, shunts should NOT be applied unless a member of the team is trained to do so.

After the necessary preparations have been made:

1. Observe that train or engine stops before any part of the equipment passes the signal displaying a Stop Indication.
2. Verify rule compliance as follows:
  - If the signal selected for the test is a controlled signal verify that the crew stops for the signal and secures authority to pass the signal.

Note: Advise the Chief Dispatcher or Manager of Dispatcher Practices and Rules via Outlook Mail or telephone as soon as possible after test so they can listen to the audio recording and enter test on dispatcher giving verbal authority.

Note: This test may not be conducted by a testing supervisor on board the train.

**FAILURE DEFINED**

The test is a failure when crew fails to stop their train or engine short of a Stop signal or in ABS signaled territory when the 5 minute wait is required, but not complied with.

## 206 Automatic Interlocking

### OBJECTIVE

The Automatic Interlocking Test determines that, when finding a signal displaying a Stop indication, a crew member follows the proper procedure for proceeding through automatic interlocking limits.

### APPLICABLE RULES

GCOR 9.12.3

### PREPARATIONS / PROCEDURES

Request the Signal Supervisor (or designated representative) to display Stop indication or shunts may be used if a testing manager has been trained in the proper use of shunts.

After the necessary preparations have been made:

1. Monitor Operations Test 205.
2. Verify that a crew member from the train or engine goes to the release box and follows instructions.

Note: This test may not be conducted by a testing supervisor on board the train.

### FAILURE DEFINED

The test is a failure when crew fails to read and follow the instruction in the release box prior to signaling for movement to proceed past a Stop indication at an automatic interlocking.

## 207 Banner—Trains

### OBJECTIVE

The Banner Test determines that a train or engine crew is in compliance with all rules requiring ability to stop within half the range of vision. These requirements are found in GCOR rules 6.27 (Restricted Speed) and 6.28 (Movement on Other than Main Track) and block system rules. When a test is conducted with a banner, it must be recorded as a test 207. Test nos. 201 and 204 must not be entered as additional tests.

### APPLICABLE RULES

GCOR 5.6, 6.4, 6.13, 6.14, 6.15, 6.27, 6.28, 9.9, 9.10, 9.1.13, 9.1.14, 9.1.15, 9.15.1, 10.3, 14.4, 15.2, 16.4, 18.11

### PREPARATIONS / PROCEDURES

This test may be conducted at any location where a train or engine is required to move per Rule 6.27 or 6.28 such as:

- Where block system rules require restricted speed.
- In a location where a train has been delayed within a block in ABS territory.
- Where a train has initiated a movement on the main track or other track where CTC is in effect.
- In yard limits within non-signaled territory or the train is not operating on a signal more favorable than approach.
- In Restricted Limits.
- On other than main track unless CTC is in effect.
- Under any other condition requiring movement to stop within half the range of vision.

While conducting this test:

- Select the location where the train or engine will be stopped based on the requirements of rules previously listed in this test.
- When a train or engine will be tested on the main track communicate with the train dispatcher to discuss your testing plans.

Erect the banner in a location that will test an employee's ability to stop within the requirements of GCOR Rules 6.27 and 6.28. For maximum effectiveness the banner should be placed in a location where visibility is limited. Placement of the banner on tangent track is discouraged for this test.

- When a signal requires movement at restricted speed, place a testing manager in a position to observe the signal as the train or engine passes it to verify indication.
- Verify that the train or engine stops short of the banner.

Note: This test may not be conducted by a testing supervisor on board the train.

#### **FAILURE DEFINED**

This test is a failure when the train or engine fails to stop short of contacting the banner.

Note: Placing the train in emergency to stop short of the banner will be considered failure to comply with prescribed train handling methods as outlined in current BNSF ABTH Rule 103.1. This type failure will be recorded under Test 699 and not this test.

## **208 Block Signals—Stop & Proceed**

### **OBJECTIVE**

The Block Signals-Stop and Proceed Test determines that employees comply with all rules governing Stop and Proceed signals and is applicable to all members of the crew on the lead or controlling locomotive. The test is divided into two categories, testing a situation where there is no train ahead and testing a situation where a train is following another train.

### **APPLICABLE RULES**

Signal Rule 9.1.14; GCOR 9.5, 9.16

### **PREPARATIONS / PROCEDURES**

Set up the Stop & Proceed indication by using shunts, assistance from a signal supervisor or as described below for the train following another train situation

Note: This test should not be conducted at a grade signal or under the provision of Rule 9.16(2).

Observe that the train or engine stops before any part of the equipment passes the signal displaying Stop and Proceed.

### **SHUNT PROCEDURE WHEN TESTING TRAIN FOLLOWING ANOTHER TRAIN**

- If using shunts to stop a train following another train select a location that is not in close proximity to a crossing equipped with active warning devices.
- Verify that block signal indicates Stop and Proceed.
- Position at least one testing manager at the signal protecting the block which will be shunted to verify signal indication.
- Position at least one testing manager to verify that previous block signal indication is approach after shunts are applied.
- After lead train passes, apply shunts to rail before train exits the block to be shunted.



**ALTERNATE PROCEDURE WHEN TESTING TRAIN FOLLOWING ANOTHER TRAIN**

- Have dispatcher stop first train or take advantage of current operating situation that requires first train to stop.
- Position at least one testing manager at the signal protecting the first train to verify signal indication.
- Verify that block signal indicates Stop and Proceed.
- Position at least one testing manager near first train to verify that train remains in the block until second train is stopped.
- Position at least one testing manager to verify that previous block signal indication for second train is approach.

Note: This test may not be conducted by a testing supervisor on board the train.

**DATA REPORTING**

This test has been designed to require a special code to be entered that will provide specific testing information. When prompted to enter a “Rule Book Code” the code to be entered is “G”. When prompted to enter a “Rule Number”, use the appropriate code(s) that reflects your testing situation.

**208-1** Test is for compliance with requirement for stopping when there is no train ahead at a Stop and Proceed indication.

**208-2** Test is for compliance with requirement for stopping at a Stop and Proceed indication when there is a train following another train.

Note: If the signal selected for the test is a Stop & Proceed signal that protects a facing point spring switch, verify that the crew conducts a test of the spring switch as outlined in Rule 8.9.1 (Testing Spring Switch) and failures are recorded as Test 699.

**209 TWC Authority Limit****OBJECTIVE**

The TWC Authority limit test determines train crews comply with requirements of trains operating with Track Warrant Control authority in signaled or non-signaled TWC territory.

**APPLICABLE RULES**

GCOR 6.3, 14.1, 14.2, 14.3

**PREPARATIONS / PROCEDURES**

1. Advise Chief Dispatcher and Train Dispatcher of plans to conduct this test.
2. Determine a location that gives the testing manager the ability to verify a train stop.
3. Coordinate with train dispatcher a location to be designated as last named point of Track Warrant authority where train will be stopped. Verify the limits of authority once in effect. This may be accomplished by monitoring radio transmission, or verbal communication with the Train Dispatcher.
4. Instruct Train Dispatcher to issue no further Track Warrant authority to train beyond predetermined location until testing supervisor has verified the train has stopped.
5. Verify the train stops within designated limits of authority. Manager may board the train and verify proper completion and content of the Track Warrant using OPT 614.
6. Verify that crew member contacts employee in charge before occupying limits of track warrant issued joint with an employee.

Note: This test may not be conducted by a testing supervisor on board the train.

**FAILURE DEFINED**

This test is a failure when crew fails to stop the train within the limits designated by Track Warrant or occupies limits joint with an employee without first receiving permission to occupy limits.



## 301 Blue Signal—Safety Absolute

### OBJECTIVE

This test verifies that employees provide and display required blue signal protection.

### APPLICABLE RULES

Mechanical Safety Rule S-24.2 through S-24.2.12

### PREPARATIONS / PROCEDURES

This test can be conducted anytime workmen are engaged in the activity of inspecting, testing or repairing freight cars or locomotives.

When testing locomotive repair craft employees:

- Verify all controlling locomotives, if present, are flagged as required by S-24.2.7, S-24.2.8, and S-24.2.9
- Verify ID tags are applied as required in S-24.2.10

On main track:

- Verify the presence of a blue signal at each end of the train
- Check for a blue signal on the engine, when required
- Note that blue signal protection is removed by the craft or group of workmen displaying it

On tracks other than main track:

- Check that the employee has properly lined manually operated switches that provide access away from track to be blue-signaled
- Determine that the same switches are secured with an effective locking device
- Verify that portable derrails, as an alternative, have been placed the proper distance from each end of rolling equipment:
  - For rolling equipment to be protected - 150 feet
  - On an engine servicing track or car repair shop where speed limit is 5 MPH - 50 feet
- Note that blue signals of sufficient size are displayed at or near such switches or derrails
- Note that blue flags or signs, not lights, are used near the locked derrails/switches during daylight hours
- Note that blue signal protection is removed by the craft or group of workmen displaying it

Where remote control switches providing direct access are locked out:

- Check that switch is properly lined and secured
- Determine that a written record for each notification is maintained
- If workmen are on, under or between an engine or rolling equipment is coupled to an engine, verify that blue signal is displayed on the controlling locomotive where it can be readily seen by an employee at the controls
- Note that blue signal protection is removed by the craft or group of workmen displaying it

**FAILURE DEFINED**

The test is a failure if:

- Employees begin working on, under or between rolling equipment prior to establishing required Blue Signal protection
- Mechanical Department employees, other than those involved in moving or repositioning locomotives, are on the locomotive without establishing required Blue Signal protection
- Mechanical Department employees use blue lights (of insufficient size) as blue signals during the day at a locked switch or derail
- Mechanical Department employees on, under, or between locomotives do not have an ID tag attached to their blue signal
- Controlling locomotives are not flagged as required

**303 Lockout/Tagout—Safety Absolute****OBJECTIVE**

This test is conducted to monitor employee compliance with the lockout / tag out requirements, regardless of whether the worker is currently using lockout/tag out measures. The tested employee is required to have an approved lockout/ tag out device.

**APPLICABLE RULES**

Mechanical Safety Rules and Polices S-3.1.6, S-16.4, S-16.17, S-27.13 and S-10.17.

**PREPARATIONS / PROCEDURES**

This test may be conducted anywhere employees are observed servicing or repairing machinery or equipment in a location that may expose them to potentially hazardous energy sources. These sources may be electrical, mechanical, hydraulic, gravitational or thermal.

**FAILURE DEFINED**

The test is a failure when the tested employee does not have an approved lockout / tag out device that is:

- Marked with the identity of the employee.
- A standardized lock. Each lock will have a single, unique key that remains in the possession of the employee. (There will be NO master keys).
- Used exclusively for lockout.
- Readily available to the employee who may have to lockout the machine.

It will be considered a failure if the tested employee is engaged in an activity that places them in danger by neglecting to:

- Shut the equipment down.
- Turn off the battery switch and lock it in the off position.
- Test on/start button on the machine or equipment to make sure it is de-energized and will not operate.
- Establish protection against other machinery.
- Follow existing Mechanical Safety Rules or Policies.

## 314 Ladders & Platforms—Mechanical

### OBJECTIVE

This test is conducted to monitor employee compliance with the use of ladders, platforms, scaffolds and aerial baskets.

### APPLICABLE RULES

Mechanical Safety Rules: S-9.1 through S-9.13.2

### PREPARATIONS / PROCEDURES

This test can be conducted any time employees are using ladders, platforms, scaffolds or aerial baskets

### FAILURE DEFINED

The test is a failure when the tested employee has not inspected, stored or used the ladder, platform, scaffold or aerial basket properly.

### DATA REPORTING

This test has been designed to require a special code to be entered that will provide specific testing information. When prompted to enter a “Rule Book Code” the code to be entered is “S”. When prompted to enter a “Rule Number” use the appropriate rule number associated with the observation.

## 315 Hand Tools—Mechanical

### OBJECTIVE

This test determines that employees are in compliance with rules addressing the use of hand tools in the performance of their job tasks

### APPLICABLE RULES

Mechanical Safety Rules and Policies: S-1.4.1, S-1.4.2, S-1.4.3, S-1.4.4, S-7.1, S-7.2, S-7.3, S-7.4, S-7.6, S-7.7, S-11.5.1, S-7.9, S-7.10, and S-7.11

### PREPARATIONS / PROCEDURES

This test can be conducted any time an employee is observed using hand tools including striking or struck hand tools, tools with sharp edges, swinging tools, pry/lining bars and files.

### FAILURE DEFINED

The test is a failure any time an employee:

- Fails to inspect tools for defects.
- Makes any modification to a tool without manufacturer’s approval.
- Continues use of a defective tool.
- Fails to properly redress a striking or struck hand tool.
- Fails to direct sharp edges of tools away from their body or hands.
- Fails to ensure/warn others to stay clear when using swinging tools.
- Fails to remove dirt/grease from hands and handle before using swinging tools.
- Uses a pry or lining bar improperly.
- Uses a file without a handle.
- Uses a tool for a job it is not intended for.
- Fails to use band cutters to cut steel bands.
- Fails to use a chisel or punch holder.
- Uses an unapproved knife or uses a knife when another tool is available.
- Uses a “Leatherman” subject tool or similar multipurpose tool.

## 316 Crane Operation/Rigging—Safety Absolute

### OBJECTIVE

This test determines that employees are in compliance with rigging requirements

### APPLICABLE RULES

Mechanical Safety Rules and Policies: S-17.1 through S-17.1.5, S-17.2.1 through S-17.2.6, S-17.5.1, S-17.5.2, S-17.6, S-17.7, S-17.9, S-17.2.7

### PREPARATIONS / PROCEDURES

This test can be conducted anytime employees are operating cranes, hoists and rigging.

### FAILURE DEFINED

The test is a failure when:

- Employees fail to inspect new or repaired ropes, slings and other rigging daily before use.
- Slings are used that do not have the required identification tags.
- Lifting/hoisting over manufacturers load capacity.
- Employees use damaged slings.
- Load rigging is not consistent with S-17.1.3.
- Chain slings in use are not consistent with S-17.1.4.
- Below the hook lifting devices are not consistent with S-17.1.5.
- A load is moved before persons are clear.
- Appropriate power line clearance is not maintained.
- Walking, standing, or working under a suspended load.
- Moving load before all persons are clear.
- Failure to comply with S-17.5.1 and S-17.5.2.
- Using improper hand signals.
- Failure to comply with S-17.9.
- Failure to use the steering wheel cover while boom is in use.

## 318 Single Car Air Brake Test—Mechanical

### OBJECTIVE

This test will verify that a qualified person is using proper techniques when testing the air brake system on a single freight car

### APPLICABLE RULES

AAR Field Manual Rule 3.A.2, CFR 232.305

### PREPARATIONS / PROCEDURES

This test can be conducted any time a qualified person is engaged in the activity of performing a Single Car Air Brake Test on a freight car on the repair track or in a repair shop

Perform all the tasks identified in AAR Standard S-486, latest revision which includes the following tests:

Brake Pipe Leakage, Separate Brake Pipe Venting Devices, System Leakage, Hand Brake Inspection, Service Stability, Piston Travel, Emergency, Release Test after Emergency, Retaining Valve, Minimum Application, Slow Release, Accelerated Application Valve, Recheck Piston Travel and Manual Release test

### FAILURE DEFINED

The test is a failure any time an employee is observed not performing all the tasks as written per AAR Standard S-486, latest revision.

## 319 Extended Haul Air Brake Test—Mechanical

### OBJECTIVE

This test determines that a qualified person is properly performing an air brake test and inspection on trains designated as Extended Haul

### APPLICABLE RULES

49 CFR 232.213

### PREPARATIONS / PROCEDURES

This test must be performed on trains at no more than 1,500 mile intervals; the train has to be designated as an Extended Haul train

Inspectors must be qualified to perform the Extended Haul Air Brake Test & Inspection

Verify that the brake system is charged to within 15 psi of the regulating valve setting on the controlling locomotive, but no less than 75 psi.

Verify that the air flow meter does not exceed 60 psi or the airflow pointer is left of the calibration mark.

Verify that after a signal is received, a 20-psi brake pipe reduction is made.

If the train does not meet AFM test conditions or is equipped with Distributed Power, verify a brake pipe leakage test is conducted as follows:

- Verify that after brake pipe exhaust ceases, a 60-second waiting period is observed.
- Verify that the Automatic Brake Valve maintaining feature is cutout or lapped.
- Verify that after the valve is cutout, a 60-second waiting period is observed.
- Verify that the leakage is then observed for 60 seconds and it does not exceed 5 psi.

Verify that inspector(s) inspect both sides of the equipment while the cars are stationary to insure:

- The brakes apply on each car.
- The brake rigging does not bind or foul on each car.
- All air brake parts are properly secured on each car.
- All angle and cutout cocks are in the proper position; air hoses are not kinked nor have any other obstruction.
- Retainer valves and pipes are secure and in the proper position.
- Brake cylinder piston travel is correct on each car. If any car is observed with brakes that are not applied, a re-test of the car can be performed and the brakes must remain applied for a period of at least 3 minutes and must not release on it's own during the observation.
- Inspect each car for FRA safety appliance and safety standard defects and either repair or have the defective car removed from the train. Inspect hazardous material cars for leaks and placarding and inspect all open top loads for proper securement and clearances. Give proper signal to have the brakes released and inspect every car to see that all brakes have released.
- Provide proper notification to the crew in writing that the test and inspection was completed successfully. The notification must include date; time, number of car(s) inspected, and identifies the qualified person(s) conducting the test and the location where the test was performed. If both sides of the car(s) were inspected with the brakes set, a roll-by inspection at no more than 10 mph may be performed to see that all brakes have released. The locomotive engineer must be notified of the results.

### FAILURE DEFINED

It is a failure any time an employee is observed not performing any of the required tasks.

## 320 Jacking Equipment—Safety Absolute

### OBJECTIVE

The Jacking Equipment Test monitors employee compliance with the rules and identified best practices related jacking cars and equipment

### APPLICABLE RULES

Safety Rules S-10.1 and S-10.1.1; Road Truck Jacking Certification and job safety analysis located on the following web site:

[http://bnsfweb.bnsf.com/departments/mechanical/safety/road\\_truck.html](http://bnsfweb.bnsf.com/departments/mechanical/safety/road_truck.html)

### PREPARATIONS / PROCEDURES

Select a location where there will be activity involving jacking equipment. Review all set up and inspection procedures outlined in the job safety analysis

Be in position to see that all set up and inspection procedures outlined in the job safety analysis are followed. Focus on activity identified outlined in RED in the JSA., specifically “Employee should not be alongside or under car while jacking or when supported only by jacks.”

### FAILURE DEFINED

Employee(s) observed do not follow identified rules and prescribed JSA

## 321 Vehicle Operations—Safety Absolute

### OBJECTIVE

This test is conducted to determine employee compliance with the rules related to the operation of motor vehicles.

### APPLICABLE RULES

S-1.2.6, S-1.6.1, S-8.3.2, S-11.8.2, S-11.8.3, S-11.8.5, S-11.9.1 through S-11.9.9, S-12.1.1, S-12.2, S-12.4, S-12.5, S-12.6, S-12.8, S-12.9.1, S-13.1.3, and S-12.16

### PREPARATIONS / PROCEDURES

Test can be conducted any time employees are operating motor vehicles where the above safety rules apply. Examples are:

- Stopping for flares and/or flashing lights in intermodal facilities.
- Forklift operation.
- Backing motor vehicles.
- Operation of all terrain vehicles and utility vehicles
- Fouling track unnecessarily without proper authority or protection
- Compliance with posted instructions, signs, or other warnings prior to approaching or crossing tracks

Employees operating or riding in a vehicle must be alert to any risks, including those that may occur when crossing or traveling near track; when crossing tracks, be prepared to stop, look and listen to ensure the way is clear.

### FAILURE DEFINED

The test is a failure when the employee did not follow applicable rule(s) during the operation of a vehicle.

### DATA REPORTING

This test has been designed to require a special segment code be entered. When prompted to enter a “Rule Book Code” use the letter “S”. When prompted to enter a “Rule Number” use the appropriate segment code that reflects the observation; use the following segment codes according to the observed safety rule(s):

**321-1** Vehicle Operations rules S-8.3.2, S-12.1.1, and S-12.5

**321-2** Fork Lift Operations rules S-11.8.2, S-11.8.3, S-11.8.5, S-11.9.1, S-11.9.5, and S-11.9.6

**321-3** Backing rule S-11.9.3, S-12.8

**321-4** Fouling Tracks or Roadways rule S-1.2.6, S-1.6.1, S-12.9.1, S-13.1.3, and S-12.16

**321-5** All Terrain Vehicles (ATVs) and Utility Vehicles rules S-12.2, S-12.4

## 322 Locomotive and Car Movement—Safety Absolute

### OBJECTIVE

This test is conducted to determine employee compliance with the rules related to the movement of locomotives and railroad cars including working near the tracks.

### APPLICABLE RULES

S-1.2.6, S-1.6.1, S-10.2.1, S-10.2.2, S-10.3.2, S-10.10, S-10.15, S-13.1.1 through S-13.1.5, S-13.1.9, S-13.2.1 through S-13.2.4, S-13.5 and S-14.3

### PREPARATIONS / PROCEDURES

Test can be conducted any time employees are operating locomotives, moving cars or walking near or crossing tracks where the referenced safety rules apply. Examples are:

- Locomotive movement rules and procedures
- Moving cars with car movers or cables
- Riding in or on moving equipment
- Crossing tracks
- Chocking cars
- Getting on or off moving equipment
- Going between cars or locomotives coupled to locomotives
- Giving signals related to moving equipment
- Compliance with posted instructions, signs, or other warnings prior to approaching or crossing tracks
- Fouling track unnecessarily without proper authority or protection

Employees must be alert to any risks, including those that may occur when crossing or traveling near tracks; when crossing tracks, be prepared to stop, look and listen to ensure the way is clear.

### FAILURE DEFINED

The test is a failure when the employee did not follow the applicable rule(s) when:

- moving a locomotive or car
- unnecessarily fouling the track
- Does not comply with rules and local instructions regarding fouling the track

### DATA REPORTING

This test has been designed to require a special segment code be entered. When prompted to enter a "Rule Book Code" use the letter "S". When prompted to enter a "Rule Number" use the appropriate segment code that reflects the observation; use the following segment codes according to the observed safety rule(s):

**322-1 Moving/Spotting Locomotives** rules S-10.2.1, S-10.2.2, S-10.3.2, S-10.15, S-13.1.1, S-13.1.2, S-13.2.1 through S-13.2.4, and 13.5

**322-2 Moving/Chocking Cars** rules S-10.10, S-10.15, S-13.1.1, S-13.1.2, S-13.1.5, S-13.1.9, and S-13.2.1 through S-13.2.4, S-13.5, and S-14.3

**322-3 Tracks** rule S-1.2.6, S-1.6.1, S-13.1.3 and S-13.1.4

## 323 Fall Protection—Safety Absolute

### OBJECTIVE

Monitors compliance with the requirement to wear and utilize personal fall protection equipment when employees are working from elevations that are unprotected, including from the roofs of locomotives, freight cars and equipment as well as other locations where fall hazards exist. This test requires additional monitoring of employees to verify that proper authority and a job specific briefing with a supervisor has taken place.

### APPLICABLE RULES

Safety Rules S-9.13.2, S-21.1, S-28.20 and S-10.18

### PREPARATIONS / PROCEDURES

Review the applicable rules. Observe for the following:

- Locomotive movement rules and procedures.
- Moving cars with car movers or cables.
- Riding in or on moving equipment.
- Crossing tracks.
- Chocking cars.

Note 1: Some work locations utilize mobile lift platforms with fall protection equipment. Observe that the employee is using a mobile system and is connected by a proper retractable lanyard to the lift connecting anchorage point.

Note 2: Where fall protection equipment is not installed or available for use then observe for the following:

- Verify the employee has proper authority to be on the roof of the freight car, locomotive or the equipment.
- Verify the employee has had a job specific briefing from their supervisor or lead person, discussing the potential hazards and recommended safety precautions.
- Verify the employee is not working from and icy, oily or slippery surface.
- Observe that the employee is using tools defensively, is not over reaching and is maintaining proper balance.

Observe that the employee accesses the locomotive roof from the rear only or with an approved ladder from the front of the locomotive (short hood).

### FAILURE DEFINED

Employee(s) observed do not follow the identified rules



## 324 Freight Car Doors/Load Dividers—Mechanical

### OBJECTIVE

This test determines that employees are in compliance with rules addressing the operation of freight car doors and load dividers.

### APPLICABLE RULES

Mechanical Safety Rules and Policies: S-10.8, S-10.8.1, S-10.8.2 and System Mechanical Policy No: PO-980715, Securement of Plug Doors.

### PREPARATION/ PROCEDURE

This test can be conducted anytime an employee is observed operating a freight car door or load divider

### FAILURE DEFINED

The test is a failure any time an employee:

- Opens or closes a door using the following equipment:
  - Truck,
  - Forklift,
  - Tractor,
  - Shop mule,
  - or
  - Other self propelled equipment.

Note: it is not a failure if the equipment is specifically designed for that purpose, or is being used to stabilize or control a door suspected of being under pressure or damaged

- Fails to comply with directives outlined in System Mechanical Policy No: PO-980715, Securement of Plug Doors.
- Removes or replaces doors while the car is on jack stands.
- Fails to position themselves to avoid being struck by: falling door/load dividers or mechanism/handle under tension.
- Fails to make sure overhead carriage and gate hanger parts are intact and properly positioned, before moving load dividers.

## 350 Track Occupancy—MW Only (Critical Decision)

### OBJECTIVE

This test/audit protocol determines employee compliance with track authority while occupying or fouling the track, or using the authority as a method of protection.

### APPLICABLE RULES

MWOR 6.2.1, 6.3.1, 6.3.2, 6.3.3, 12.2 and 12.3

### PREPARATIONS / PROCEDURES

This test/audit may be conducted anytime employees are occupying or fouling the track, or using the authority as a method of protection.

**350-1** MWOR 6.3.1 – When a main track, controlled siding, or any track where a block signal system is in effect is occupied or fouled by roadway workers, verify proper authority has been granted consistent with the type of operation for that location as identified in the timetable/special instructions.

When the track authority is granted jointly with other work groups (including train crews), verify the employee in charge contacts each of the other work groups and conducts a job safety briefing with them prior to occupying or fouling the overlapping authority limits. Verify working limits are properly documented. If overlapping working limits are established, verify a single employee in charge has been identified for the overlapping working limits. If one of the track authorities is a Track Bulletin Form B, the employee in charge of the Form B will also be in charge of any overlapping limits. Before occupying a main track, controlled siding or any track where CTC is in effect, employees must have information concerning all track bulletin Form B's in effect that may overlap their authority.

**350-2** MWOR 6.3.2 – On tracks other than a main track, controlled siding, or any track where a block signal system is in effect, Roadway workers may establish working limits by providing protection using one or a combination of the following:

- All switches that provide direct access to the working limits are lined against movement, tagged, and effectively spiked, clamped, or locked with an effective locking device.
- A red flag or light and a derail locked in the derailing position are placed at least 50 feet from the work location (150 feet where the track speed is greater than 5 mph). Protection by red flag and new designed portable derail (height less than 3 inches above top of rail and painted red) may be used to protect against on-track equipment, railroad cars and locomotives. Protection by red flag and older style portable derail (height greater than 3 inches above top of rail and painted yellow) may only be used when it is known that on-track equipment or railroad cars are the only type of equipment that the older style portable derail will be protecting against. Older style portable derails (painted yellow) may not be used to protect against locomotives.
- Remotely controlled switches, including those in a hump yard facility, have been lined against movement to the affected track and locking/blocking devices have been applied to the respective switch controls.
- A flagman is positioned to hold all trains and on-track equipment clear of the working limits.
- A discontinuity in the rail is created to prevent movement into the working limits.
- Working limits are established on a main track, controlled siding or any track where a block signal system is in effect to prevent movement into working limits established on other than main track.
- A train or engine is flagged to a stop and its crew issued instructions to make all movements only as directed by the employee in charge of the working limits.

**350-3** MWOR 6.3.3 - A track may be fouled by a roadway worker while:

- Performing minor work that will not affect the movement of trains.
- Performing a routine inspection when a lone worker uses individual train detection (outside the limits of a control point or remotely controlled hump yard facility).
- A roadway work group has an assigned lookout whose only duty is to provide train approach warning.

Verify lone workers and lookouts are trained and rules qualified. Verify prior to fouling the track, a job safety briefing has been conducted and a Statement of On-Track Safety has been properly completed, indicating the identity of the lookout, place of safety where all roadway workers will position themselves at least 15 seconds prior to the arrival of a train, and indicate the method that the lookout will use to warn members of the roadway work group of the approach of a train or on-track equipment.

**350-4** MWOR 12.2 – Work may be performed adjacent to a live track using the Special Operating Guidelines under the following conditions:

- You may perform maintenance with production rail grinders or rail detectors while a train is passing on an adjacent main track or controlled siding.
- You may perform maintenance with other on-track equipment, referenced in section MWOR 12.3, while a train is passing on an adjacent main track or controlled siding if a Track Bulletin Form B is in effect on the adjacent main track(s) or controlled siding and the EIC has instructed the passing train to pass people and equipment at:
  - 40 MPH or less on tangent track,
  - or
  - 25 MPH or less where curves or gradients obscure vision.
- Workers on the ground required to foul an adjacent track while performing a task associated with the track on which they are working must be protected by a lookout if working limits are not established on the adjacent track. The provisions for lookout protection must be strictly complied with, and under no circumstances may equipment or material foul the adjacent track under lookout protection. Workers on the ground must not work between the tracks while a train is passing.
- MWOR 12.3 - When a work group is working over an extended distance and the group has been divided into subgroups, the EIC and the subgroup coordinators will use the Subgroup Coordinator Notification form to ensure that all members understand that a train is approaching.

**350-5** MWOR 6.2.1 - Before occupying or fouling the track, or using the authority as a method of protection for which an employee is authorized behind a train(s), the employee must establish direct radio contact with a crew member of the train(s) confirming the train's identity by engine initials and number, and ascertain the train's MP location confirming the train has passed the location where the track will be occupied.

When an authority is issued voiding a previous authority and identifying additional train(s) to be followed, movement must stop until direct radio contact is established to ascertain the location of the additional train(s).

**FAILURE DEFINED**

- 350-1**
- Record this test as a failure when track cars, men, or equipment are occupying or fouling a track without proper authority as required by MWOR 6.3.1.
  - Record this test as a failure when track cars, men, or equipment are occupying or fouling a track with proper authority, but have the following documentation errors:
  - Track and Time, Track Permit and Foul Time:
    - Conditions of Authority (behind) not recorded or incorrectly identified, when applicable.
    - Track not recorded or incorrectly identified.
    - Track Authority Limits not recorded or incorrectly identified.
    - Time Limits Authorized is not recorded or incorrectly identified.
    - Joint Status is not recorded or incorrectly identified, when applicable.
    - OK Time is not recorded or incorrectly identified.
1. Track Warrant, MW Track Authority Form and OCS:
    - Failure to “X” the boxes specified.
    - Authority in effect behind or following a train not recorded or incorrectly identified, when applicable.
    - Track not recorded or incorrectly identified.
    - Track Limits Authorized not recorded or incorrectly identified.
    - Joint Status (and/or Overlaps, where required) is not recorded or incorrectly identified, when applicable.
    - Track Released (Roll-Ups) Limits is not recorded or incorrectly identified, when applicable.
    - OK Time is not specified or incorrectly identified.
  2. Track Bulletin Form B:
    - An employee fails to obtain information concerning all Form B’s that may overlap his authority prior to occupying the track.
  3. Working Limits Form (Generally) – when working limits are required to be established within overlapping authority limits:
    - Employee in Charge is not recorded or is incorrectly identified for each set of working limits.
    - Working Limits not recorded or incorrectly identified.
  4. Working Limits Form (Multiple Work Groups) – when the Working Limits Form is required of an employee who does not hold an authority, but is using another employee’s authority in a “Multiple Work Group Using the Same Authority” situation:
    - Employee in Charge is not recorded or is incorrectly identified for each set of working limits.
    - Working Limits not recorded or incorrectly identified.
    - At Time not recorded.
    - Clear Time not recorded.
  5. Multiple Work Groups Using the Same Authority Form – (EIC of the authority):
    - Authority Number not recorded or incorrectly identified.
    - Working Limits not recorded or incorrectly identified.
    - Time Acknowledgement received not recorded.
    - Time Authority Limits cleared not recorded.

- 350-2** Record this test as a failure when Roadway workers have not properly established protection for working limits on other than a main track, controlled siding, or any track where a block signal system in effect using one or a combination of the methods required by MWOR 6.3.2.
- 350-3** Record this test as a failure when visual detection is being utilized and the Statement of On-Track Safety is not properly completed and/or the requirements of MWOR 6.3.3 are not met.
- 350-4** Record this test as a failure when:
- Employees continue to occupy or work between adjacent tracks while a train is passing.
  - On-Track Equipment specifically designated to stop working by the tables in MWOR 12.3 continue to work while a train is passing.
  - Employees required to use the Sub-Group Coordinator Notification form fail to document the required information to ensure that all employees have been notified of an approaching train.
- 350-5**
- Record this test as a failure when an employee authorized behind a train(s) occupies or fouls the track, or uses the authority as a method of protection prior to establishing direct radio contact with a crew member of the train(s), ascertaining the train(s) identity, MP location and that it has passed the location where the track will be occupied or fouled.
  - Record this test as a failure when an employee is issued an authority voiding a previous authority and identifying additional train(s) to be followed, and the employee does not stop movement until direct radio contact is established to ascertain the train's identity and location of the additional train(s).

**DATA REPORTING**

This test has been designed to require a segment code to be entered.

When prompted to enter a "Rule Book Code", enter "M", and when prompted to enter a "Rule Number" use the appropriate segment code above associated with your observation.

**351 Lock Out/Tag Out—MW Only (Critical Decision)****OBJECTIVE**

The Lock Out / Tag Out test determines MW employee compliance with lockout / tag out requirements when inspecting, servicing, or performing maintenance activities on machinery or equipment that may unexpectedly energize, start, or release stored energy.

**APPLICABLE RULES**

Engineering Instructions 1.10

**PREPARATIONS / PROCEDURES**

This test may be conducted anywhere employees are observed working with equipment that has potentially hazardous energy sources. These sources may be electrical, mechanical, hydraulic, gravitational or thermal.

**FAILURE DEFINED**

The test is a failure when the tested employee is engaged in an activity that requires LOTO and they do not have an approved lockout / tag out device that is:

- Marked with the identity of the employee.
- A standardized lock. Each lock will have a single, unique key that remains in the possession of the employee. (There will be NO master keys).
- Used exclusively for lockout.

It will be considered a failure if the tested employee is engaged in an activity that places them in danger by neglecting to:

- Shut the equipment down.
- Turn off the battery switch and lock it in the off position.
- Establish protection against other machinery.

## 352 Main Track Switches—MW Only (Critical Decision)

### OBJECTIVE

This test determines an employee returns main track switches, derails, and switch point locks to the normal position, the Position of Switch (POS) form is properly completed, employee is in proper position in relation to the switch, and required communication with the train dispatcher occurs regarding position of switches.

### APPLICABLE RULES

MWOR Rules 8.2, 8.3 and 14.12

### PREPARATIONS / PROCEDURES

This test may be conducted when MW employees are observed changing the position of main track switches, derails and locks.

Observe that the employee handling a main track switch or derail restores it to the normal position.

Observe that the employee in charge records the location and time that a main track switch or derail is initially operated and finally returned to the normal position on the POS form.

Observe the employee restoring a hand-operated main track switch to the normal position remains at the switch location (in view of the switch) until the position of switch briefing is conducted with the employee in charge.

In non-signaled TWC or Double Track ABS territory, after restoring a hand-operated main track switch and when track authority permits, observe that a facing point movement with equipment being handled is made over the main track switch. If authority does not permit a facing point movement over the switch, observe that the employee makes a walking inspection of the switch points ensuring they are properly lined. If no on-track equipment is used, a walking inspection of the switch points must be made.

In TWC territory, observe that:

- The employee in charge using a hand-operated switch to clear the main track remains at the switch location (in view of the switch) until the TW has been reported clear.
- The employee releasing or reporting clear of TW limits job briefs with the train dispatcher regarding the position of main track switches, including the required reference to the POS form.

Supervisors may audit POS forms within the required 5 day retention period to determine proper completion.

### FAILURE DEFINED

Record this test as a failure when:

- The employee does not properly return to the normal position and inspect main track switches, derails and switch point locks
- The employee does not follow on-track equipment facing point movement procedures as required in non-signaled TWC or Double Track ABS territory after a switch has been returned to normal position
- The employee in charge does not record the location and time that a main track switch or derail is initially used and finally returned to the normal position
- The employee in charge does not retain the completed POS form for 5 days after the tour of duty
- The employee restoring a hand-operated main track switch to the normal position does not remain at the switch location until the switch position briefing has been conducted with the employee in charge
- The employee in charge uses a hand-operated switch to clear the main track in TWC territory and does not remain at the switch location until the TW has been reported clear
- A job briefing with the train dispatcher is not performed when required including:
  - Position of main track switches
  - Switches operated are locked within the limits being reported clear or released
  - Position of Switch/Derail form completion or stating "No entries required"

### **353 Boom Equipped Vehicles and Equipment—MW Only (Critical Decision)**

#### **OBJECTIVE**

Verify that boom equipped vehicles are being used in accordance with manufacturer's instructions, that outriggers are in place as specified and are in compliance with policy and manufacturers recommended lifting and carrying capacity requirements as indicated by the load chart prior to moving boom, lifting or carrying.

#### **APPLICABLE RULES**

MWOR Safety Rules S-17.2.3, S-17.2.5, S-17.2.6 and EI 15.4

#### **PREPARATIONS / PROCEDURES**

Outriggers must be used on vehicles so equipped as specified by manufacturer's instructions. Only employees so qualified may operate vehicles equipped with specialized equipment such as outriggers. Employees must ensure that outriggers are in place as specified by the manufacturer of the vehicle. Loads must not be lifted or carried when they exceed weight specified in the load chart.

This test may be conducted any time employees are required to use boom equipped vehicles.

#### **FAILURE DEFINED**

This test is a failure when any of the following are observed:

- Outriggers are not used as required by BNSF or in accordance with the manufacturers written instructions per S-17.2.3 (segment 353-1)
- Power line clearance are not maintained as required per S-17.2.5 (segment 353-2)
- Loads are moved before all people are clear or loads are moved over people or occupied equipment per S-17.2.6 (segment 353-3)
- Steering wheel covers are not in place as required per EI 15.4 (segment 353-4)

#### **DATA REPORTING**

Supervisors will use the appropriate "Rule Book Code" (either "S" for MWOR Safety Rules or "E" for Engineering Instruction) based on the rule's source. Supervisors will then enter the associated segment number reference.



## 354 Fall Protection—MW Only (Critical Decision)

### OBJECTIVE

Fall protection is a specific piece of the PPE test. It is outlined in EI 1.4 and covers various crafts engaged in activities specific to their job functions. These specific pieces of PPE will be outlined below.

### APPLICABLE RULES

Engineering Instruction 1.4

### PREPARATIONS / PROCEDURES

Determine the type of specific PPE required by EI 1.4:

#### 1.4.9 Working on Railroad Bridges

##### A. Use of Personal Fall Arrest Equipment

Personnel working on a railroad bridge at a height of 12 feet or more above the ground or water surface must use personal fall arrest equipment.

Exception: Where there is no deck openings through which a worker can fall, using personal fall arrest equipment is not required when:

- Walking between the outside rails.
- Performing inspections or minor repairs with center-of-balance exclusively between the rails.

Note: Minor repairs include, but are not limited to, routine welding, spiking, anchoring, spot surfacing, and replacing joint bolts. Changing out rail is not a minor repair.

- Working on a bridge that has walkways or railings that meet the requirements of the American Railway Engineering & Maintenance of Way Association (AREMA), where a worker is performing activities between an outside rail and a walkway or railing.
- Working on a roadway attached to railroad bridges, provided that workers on the roadway deck work or move 6 feet or more from the edge of the roadway deck, or from an opening through which a worker could fall.
- Conducting bridge inspections when the inspector, qualified per Engineering Instruction 17 Structures, specifically section 17.1.2, determines through risk assessment that installing or using fall arrest equipment poses a greater exposure to risk than the work to be performed.

Note: In such cases, unless risk assessment determines that exposure to falls from elevation is increased, personal fall arrest equipment must be worn at all times and used when:

- Working in a stationary position,  
or
- Taking a break from climbing activities.
- Tie off in a manner to allow self-rescue or, preferably, fall restraint mode.



**B. Working on Railroad Bridges Over or Adjacent to Water**

When working over or adjacent to water, use a life vest when:

- The water is 4 feet or more deep,  
or
- The danger of drowning otherwise exists.

Exception: Vests do not need to be worn when:

- Using a fall arrest system in an approved manner.
- Conducting inspections that involve climbing structures above or below deck, where risk assessment has determined that wearing a life vest increases the risk of a fall from elevation.
- Doing the following, where there are no openings through which a worker can fall:
  - Walking between the outside rails.
  - Performing inspections or minor repairs with center-of- balance exclusively between the outside rails.

Note: Minor repairs include, but are not limited to, routine welding, spiking, anchoring, spot surfacing, and replacing joint bolts. Changing-out rail is not considered a minor repair.

- Working on a bridge that has walkways or railings that meet the requirements of the American Railway Engineering & Maintenance of Way Association (AREMA), where a worker is performing activities between an outside rail and a walkway or railing.
- Working on a roadway attached to railroad bridges, provided that workers on the roadway deck work or move 6 feet or more from the edge of the roadway deck, or from an opening through which a worker could fall.

**C. Using Life Vests on Railroad Bridges**

When using life vests on railroad bridges:

- Have a boat available.

Note: Risk assessment determines whether the boat is to be manned and in the water, or on the shoreline ready to go.

- Have available ring buoys with at least 90 feet of line. Space the buoys at intervals not to exceed 200 feet.

**D. Safety Nets**

Do not use safety nets for fall protection purposes.

**1.4.10 Roof Work**

Use fall protection when working on the roofs of structures and you are exposed to falls from elevation. Use the most appropriate method of fall protection that can be applied to a particular task. Use fall arrest or fall restraint, install temporary guardrail systems, or on flat roofs, establish work zones according to applicable governmental requirements. Determine the most appropriate method of fall protection on a project-specific basis during project planning and risk assessment activities.

**1.4.11 Pole Work**

When working on poles:

1. Use Miller Stopfall straps when ascending, descending, and working on wood poles, excluding wood poles supporting slide fences.
2. Wear full-body harnesses in addition to the Miller Stopfall straps where this equipment has been issued and training provided. Until full-body harnesses are issued, a climbing belt may be used in conjunction with the Miller Stopfall strap.

**1.4.12 Telecommunications: Towers/Tops of Locomotives**

When working on telecommunication towers:

1. Use personal fall arrest equipment when ascending to and descending from work locations on telecommunication towers, and when at work locations.
2. Use work positioning equipment to supplement the use of fall arrest equipment when working in a stationary location on telecommunication towers. The use of work positioning equipment is not a substitute for the use of fall arrest equipment.
3. Perform telecommunications work on the tops of locomotives where approved fall protection systems are available.

**1.4.13 Signal Bridges, Cantilevers, and Wayside Signals**

1. Use personal fall arrest equipment on signal bridges, cantilevers, wayside signals, and slide fence systems where fixed fall protection systems have been installed, equipment is made available, and training is completed. Where work cannot be performed from ground level, work from ladders, signal platforms, buckets, or lifts.
2. Where practical and where the location is accessible, use bucket trucks and/or ladders to access work locations.

**1.4.14 Light Towers and Metal Light Poles**

1. Use fall arrest equipment when ascending and descending light towers and metal light poles.
2. Where practical and where the location is accessible, use lift trucks to access work locations on light towers and metal light poles.

**1.4.15 Bucket Trucks**

1. Wear a full-body harness when working from bucket trucks.
2. Maintain provided bucket truck rescue kits on all bucket trucks. Trained employees use the equipment in these kits for emergency evacuation from buckets.

**PREPARATIONS / PROCEDURES**

Observe the employee and verify that job specific PPE requirements have been met in accordance with EI 1.4.

**FAILURE DEFINED**

This test is a failure when any of the above mentioned observations are made in context to the specific application.

### **355 HLCS Compliance—MW Only (Critical Decision)**

#### **OBJECTIVE**

The testing / audit protocol determines that required HLCS briefings take place and HLCS on-track equipment is activated and associated with an authority where required.

#### **APPLICABLE RULES**

MWOR 6.50.5

#### **PROCEDURE**

The supervisor making this observation may do so during any activity or event where the use of HLCS is required. Verify field employee/dispatcher briefings and communication exchanges take place as required. Verify that all HLCS equipped on-track equipment that fouls or occupies the track when using Track and Time, Track Warrant or Track Permit authority have HLCS equipment activated and associated with the authority.

#### **FAILURE DEFINED**

On territory identified as having HLCS in effect, record an exception when:

- A required briefing between the EIC and train dispatcher is not conducted, advising of any HLCS equipped vehicles to be associated with the authority.
- EIC of an authority does not report to the train dispatcher the HLCS vehicle numbers of multiple work groups that will foul or occupy the track to be associated with the authority.
- Employee fouls or occupies track with functional HLCS equipped vehicle without utilizing HLCS equipment as required.
- Employee fouls or occupies a track as a multiple work group with a functional HLCS equipped vehicle without notifying the EIC and utilizing HLCS equipment as required.

### 358 Reporting Clear/Releasing Authority Limits—Critical Decision

#### OBJECTIVE

This test determines the MW field employee reporting clear or releasing authority establishes all employees and any multiple work groups are clear of the authority limits and required dispatcher / control operator communication occurs.

#### APPLICABLE RULE

MWOR 2.14.2

#### PREPARATIONS / PROCEDURES

This test should be conducted where a MW employee reports clear or releases a portion of authority limits.

The supervisor(s) will monitor audio communications for proper requirements.

#### FAILURE DEFINED

The test is a failure when:

- MW field employee reporting clear or releasing authority does not establish that all employees and any multiple work groups are clear of track(s).
- MW field employee fails to inform the dispatcher / control operator that all employees and any multiple work groups are clear of track(s)

Note: All other observations regarding the Track Occupancy (OPT 350) or Mandatory Directives (OPT 375) should be recorded under their respective designation.

### 370 Flag Display & Protection—MW Only

#### OBJECTIVE

The test is to verify that proper flags (yellow/red, red, or red light) have been posted and displayed when and where required. If MWOR 6.19 - Flag Protection should be required that the employee providing the protection goes at least the prescribed distance to protect access to the restriction.

#### APPLICABLE RULES

MWOR 5.4.3, 5.4.7, 5.4.8, 6.19, 15.2.2

#### PREPARATIONS / PROCEDURES

This test applies to Maintenance of Way and Signal employees. This test may be conducted anytime maintenance employees are found occupying or foul of a track

Verify that when yellow / red flags, red flags, or red lights are required they are displayed, and are in the proper location. If flag protection should be required, that the flagmen must immediately go at least the distance prescribed by the special instructions or other instructions for that territory and protect all possible access to the restriction.

#### FAILURE DEFINED

- The flags are absent or not displayed in the location required.
- MWOR 6.19 flag protection requirements are not met.

## 372 Separation Travel—MW Only

### OBJECTIVE

The test will be conducted to monitor employee compliance with the machine travel and working zone guidelines.

### APPLICABLE RULES

Engineering Instructions 1.1.8, 1.1.9; MWOR Rule 6.51

### PREPARATIONS / PROCEDURES

This test may be conducted anywhere that it is observed that maintenance of way equipment is working or traveling.

This test may be conducted whenever maintenance of way employee is observed performing maintenance with on-track equipment or when they are moving on-track equipment from or to a job site.

### FAILURE DEFINED

Due to the extensive nature of this rule, the following acts would constitute a failure:

- Failure of a machine operator to give a slow signal or stop signal either by hand or radio to a following machine operator.
- Machines in the “travel mode” spaced less than 300 feet apart, when there is no thorough understanding with the supervisor and all parties concerned.
- Machines in the “work mode” spaced less than 50 feet apart when there is no thorough understanding with the supervisor and all parties concerned.
- Failure of an operator to dismount their machine and give clearly visible hand signals to a following machine during bunching operations.
- Failure of a machine operator to ascertain if a back-up alarm has sounded, and/or an appropriate whistle/horn signal has been sounded prior to backing the machine.
- Failure of a machine operator to ascertain that the track is clear of men or machines prior to backing the machine.

## 374 Stop Equipment—MW Only

### OBJECTIVE

The Stop test determines that the observed maintenance of way employee is in compliance with all rules requiring stopping within half the range of vision. These requirements are found in Maintenance of Way Operating Rules 6.27 (Restricted Speed), 6.28 (Movement on Other Than Main Track), 6.50 (Movement of On-Track Equipment), 6.50.2 (Approaching Road Crossing), and 6.58 (Railroad Crossing, Drawbridges, Gates and Interlockings).

### APPLICABLE RULES

MWOR Rule 6.27, 6.28, 6.50, 6.50.2, 6.58

### PREPARATIONS / PROCEDURES

This test may be conducted on any track at any time. Good judgment should dictate circumstances that should be avoided. For example, when multiple machines are moving as a group, stopping the lead machine with the banner should be done only when safety of following equipment will not be compromised.

- Carefully select, in advance, the location where equipment is to be stopped.
- Sound judgment should be used to select a safe location for the testing managers and the tested employee.
- For maximum effectiveness, the banner or other Stop signal should be placed in a location where visibility is limited.

Placement of the banner or other Stop signal on tangent track is discouraged for this test.

- Select the location where the equipment will be stopped based on the requirements of rules previously listed in this test.
- Establish the location where the equipment must stop and place an appropriate device, for example:
  - A stop banner (Be sure to place the banner in an area, and in such a manner, that it cannot be mistaken for a highway sign).
  - A red flag.
  - A flagman giving stop signals by hand.

### FAILURE DEFINED

This test is a failure when the equipment fails to be stopped before contacting the Stop Banner, or fails to stop before passing another stop signal.

## 375 Mandatory Directive—MW Only

### OBJECTIVE

This test determines the employee correctly handles mandatory directives in accordance with the rules.

### APPLICABLE RULES

MWOR 2.14, 2.14.1, 2.14.2, 6.1, 6.3.1, 6.11, 14.9, SSI

### PROCEDURE

Observations should include the following:

- Confirmation of limits prior to granting verbal authority must occur between the train dispatcher/control operator and the employee requesting authority

The verbally issued mandatory directive must be transmitted according to the following:

- The employee informs the train dispatcher/control operator when ready to copy, stating the employee's name, occupation and location
- The employee operating moving equipment does not copy a mandatory directive
- A mandatory directive must not be transmitted to moving equipment if the operator of the equipment feels that the transmission could adversely affect safe operation

When verbally transmitting and repeating mandatory directives the employee will:

- 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"
- When transmitting authority numbers separated by a hyphen:
  - o State the first number, then state or spell each digit separately for that number
  - o State the hyphen as "dash"
  - o State the second number, then state or spell each digit separately for that number

Example: Authority number 407-15; "407; 4, 0, 7 dash 15; 1, 5"

- State and spell directions

When an employee verbally reports clear or releases a portion of authority limits, and the train dispatcher/control operator accepts the information, the following must occur:

- The employee will provide their name or other identification and the authority number to the train dispatcher/control operator
- The dispatcher/control operator and employee must carefully match the verbally transmitted information against the authority form to ensure the information matches and is correct
- A mandatory directive may not be released by an employee at the controls of moving equipment

**FAILURE DEFINED**

Record the exception under the appropriate segment number.

**375-1** The employee does not:

- Confirm limits prior to receiving verbal authority
- Inform the train dispatcher/control operator when ready to copy stating the employee's name, occupation, and location
- 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 the first number, then state or spell each digit separately for that number
- State the hyphen as "dash"
- State the second number, then state or spell each digit separately for that number
- State and spell directions

**375-2** The employee does not provide name or other identification and the authority number to the train dispatcher/control operator before verbally reporting clear or releases a portion of authority limits, and the train dispatcher/control operator accepts the information.

**375-3** The employee verbally copies and / or releases a mandatory directive at the controls of moving equipment.

**375-4** The employee does not:

- Show the "OK" time on the mandatory directive
- Indicate "VOID" on a mandatory directive that is released

**DATA REPORTING**

This test/audit has been designed to require a special code to be entered that will provide specific testing/auditing information. When prompted to enter a "Rule Book Code" the code to be entered is "M". When prompted to enter a "Rule Number", use the appropriate segment code above that reflects your observation.

Note: Observations regarding the MW employee's validation / communication that all employees and / or multiple work groups are clear of track(s) in authority limits is to be recorded under 358 – Reporting Clear / Releasing Authority Limits (Critical Decision).



## 376 Disable Crossing Warning—Signal

### OBJECTIVE

This test is designed to determine that signal personnel have correctly disabled a highway grade crossing using approved procedures and equipment.

### APPLICABLE RULES

MWOR 6.32.2; Signal Instruction 7.2

### PREPARATIONS / PROCEDURES

This test should be conducted where signal personnel will be required to disable a highway grade crossing in conjunction with M/W work or crossing malfunction due to signal equipment damage. Supervisor may also test previous activity by auditing Crossing Disable Planning / Briefing worksheet.

Refer to Signal Instruction 7.2 for specific procedures to be followed depending on the number of tracks and equipment involved.

### FAILURE DEFINED

This test is a failure when the tested employee does not comply with all provisions of Signal Instruction 7.2, including:

- Proper use of jumpers and shunts
- Proper use of Crossing Disable Planning / Briefing Work Sheet
- Proper notification and use of authority from the train dispatcher
- Proper contact with the TSOC signal controller
- Proper restore procedures used and tested for proper operation

## 377 Specific Instructions—Signal

### OBJECTIVE

Items included in Operations Test 377 are based on policies, regulations, and standards developed by OSHA, FRA, and various state regulatory agencies and BNSF's Signal Department. This test describes the procedures that will ensure compliance with those policies, regulations, standards and guidelines not covered in other Operations Tests.

Note: Do not perform Operations Test 377 tests unless you are familiar with the policies, regulations, standards and guidelines applicable to the specific test.

### APPLICABLE RULES

Details regarding this Operations Test change periodically and may be found by accessing the latest revision of BNSF Signal Instructions found in sections:

- 2.1 Track Circuit Maintenance
- 2.2 DC Track Circuit Adjustment Procedure
- 2.3 Connecting Wires and Equipment to the Rail
- 6.7 Data Recorders
- 10.1 Batteries

The latest revisions to the Signal Instruction Manual may be found on BNSF Intranet using the following URL:

<http://engesst.bnsf.com/bnsfeng/signal/sigweb/>

Rules Number Format and Data Entry—ONLY RULES LISTED ABOVE CAN BE TESTED AND ENTERED INTO THE DATABASE UNDER THIS TEST.

**PREPARATIONS / PROCEDURES**

Observe specific work activities and / or events relating to the applicable rules listed above.

**FAILURE DEFINED**

Observation of specific work activities and / or events that are not in compliance with part or all of one or more of the rules prescribed above.

**378 Specific Test Procedures—Signal****OBJECTIVE**

Items included in Operations Test 378 are based on regulations and standards issued by FRA and various supplementary signal tests issued by BNSF's Signal Department. This test describes the procedures that will ensure compliance with those policies, regulations, standards and guidelines not covered in other Operations Tests.

Note: Do not perform Operations Test 378 tests unless you are familiar with the policies, regulations, standards and guidelines applicable to the specific test.

**APPLICABLE RULES**

Only the following procedures may be tested under test 378:

TP – 16 A	TP – 101	TP – 102	TP – 103
TP – 103A	TP – 103B	TP – 104	TP – 106
TP – 107	TP – 107A	TP – 108	TP – 109
TP – 110	TP – 234	TP – 377	TP – 378
TP – 379	TP – 380	TP – 381	TP – 382
TP – 387	TP – 576		

Details regarding this Operations Test change periodically and may be found by accessing the latest revision of BNSF Signal Test Procedures TP16A through TP 576. The latest revisions to the Signal Test Procedures may be found on BNSF Intranet using the following URL:

<http://engesst.bnsf.com/bnsfeng/signal/sigweb/>

Rules Number Format and Data Entry – ONLY THE RULES LISTED ABOVE CAN BE TESTED AND ENTERED INTO THE DATABASE UNDER THIS TEST.

**PREPARATIONS / PROCEDURES**

Observe specific work activities and / or events relating to the applicable rules listed above.

**FAILURE DEFINED**

Observation of specific work activities and / or events that are not in compliance with part or all of one or more of the rules prescribed above.

**379 PPE—MW Only****OBJECTIVE**

The Personal Protective Equipment for Specific Tasks Test monitors employee compliance with the rules related to wearing Personal Protective Equipment and clothing (PPE).

This test does not include compliance with the following portions of S-21.1 (Hard Hats, Safety Glasses and Safety Boots).

**APPLICABLE RULES**

Safety Rules S-1.3.1, S-1.3.2 and S-21.1 through S-21.34 less the exceptions to S-21.1 listed above. The tested employee is required to wear the proper PPE and clothing for work conditions as described in S-21.0 and the Personal Protective Equipment Charts, S-21.30 through 34, Engineering Instruction 1.4

**PREPARATIONS / PROCEDURES**

Determine the type of specific PPE required for the observed activity.

Note: Specific PPE requirements are not required

- When performing office tasks in office areas
- Inside highway or hi-rail vehicles when windows are completely closed
- In enclosed work equipment cabs (not including locomotive cabs) when windows are completely closed, or inside passenger-carrying rail cars

Observe the employee and verify that job specific PPE requirements have been met.

**FAILURE DEFINED**

The observed employee failed to wear job specific PPE excluding fall protection requirements.

Note: Fall Protection requirements are recorded under test 354

**380 Ladders & Platforms—MW Only****OBJECTIVE**

This test is conducted to monitor employee compliance with the use of ladders, platforms, scaffolds and aerial baskets.

**APPLICABLE RULES**

Safety Rules S-9.1 through S-9.13.2

**PREPARATIONS / PROCEDURES**

This test can be conducted any time employees are using ladders, platforms, scaffolds and aerial baskets.

**FAILURE DEFINED**

The test is a failure when the tested employee has not inspected, stored or used the ladder, platform, scaffold or aerial basket properly.

## 381 Hand Tools—MW Only

### OBJECTIVE

This test determines that employees are in compliance with rules addressing the use of hand tools in the performance of their job tasks.

### APPLICABLE RULES

Safety Rules S-7.1, S-7.2, S-7.3, S-7.4, S-7.6, S-7.7

### PREPARATIONS / PROCEDURES

This test can be conducted any time an employee is observed using hand tools including striking or struck hand tools, tools with sharp edges, swinging tools, pry/lining bars and files.

### FAILURE DEFINED

The test is a failure any time an employee:

- Fails to inspect tools for defects
- Continues use of a defective tool
- Fails to properly redress a striking or struck hand tool
- Fails to direct sharp edges of tools away from their body or hands
- Fails to ensure/warn others to stay clear when using swinging tools
- Fails to remove dirt/grease from hands and handle before using swinging tools
- Uses a pry or lining bar improperly
- Uses a file without a handle
- Uses a tool for a job it is not intended for
- Fails to use a chisel or punch holder
- Uses an unapproved knife or uses a knife when another tool is available

The test has been designed to require a rule number. When prompted to enter a Rule Book Code, the code to enter is S. When prompted to enter a Rule Number, enter the appropriate rule number based on your testing situation.

## 382 Rail Adjustments—MW Only

### OBJECTIVE

This test is designed to determine that all applicable Engineering Instructions involving rail replacement, rail adjustment and track stability are adhered too during operations that affect the neutral temperature of the rail.

### APPLICABLE RULES

Engineering Instructions 3.5, 4.5.1, 4.8, 4.10, 6.1.4, 6.2.3, 6.2.4, 6.2.5, 6.2.6, 6.2.7, 6.2.8, 6.4, 6.4.1, 6.4.2, 6.4.3, 6.4.3, 6.4.4, 6.4.5, 6.4.6, 8.2, 8.6.2, 11.15.7, 11.15.17

### PREPARATIONS / PROCEDURES

This test may be performed anywhere that it is observed that MW forces are performing out of face rail renewals, adjusting rail, replacing rail that changes the neutral temperature or performing maintenance activities that change the neutral temperature of the rail.

Based upon the activity being observed, verify that the applicable Engineering Instructions are being adhered to in relation to the established best practice guidelines in regards to track stability.

### FAILURE DEFINED

Due to the extensive nature of these procedures, any of the following would constitute a failure:

- Failure to take immediate corrective action when tight rail conditions are observed
- Failure to adhered to the track stabilizing speed restriction tables of EI 4.10
- Failure to properly adjust rail during out of face renewals
- Failure to properly document rail adjustments
- Failure to adjust rail after rail has been added to the track
- Failure to properly anchor the rail
- Failure to adhere to BNSF rail adjustment procedures
- Failure to adhere to BNSF rail replacement criteria
- Failure to adequately maintain standard ballast section

### 383 On Track Equipment Approaching Crossings—MW Only

#### OBJECTIVE

The On Track Equipment Approaching Road Crossings test determines Maintenance of Way employee compliance with rules governing on-track equipment while approaching road crossings.

#### APPLICABLE RULES

MWOR Rule 6.50.2

#### PREPARATIONS / PROCEDURES

This test may be conducted on any track at any time. Good judgment should dictate circumstances to be avoided.

- Select the road crossing location where equipment is to be tested
- When multiple machines are moving as a group, consider possible reaction of lead machine and safety of following equipment
- Sound judgment should be used to select a safe location for the testing managers and the tested employee

Arrange to position, or observe vehicular traffic at or approaching the road crossing. Verify on-track equipment approaches the road crossing prepared to stop and yields to vehicular traffic at or approaching the road crossing.

Note: This test is not to be used when stopping on-track equipment with a Stop Banner. When stopping on-track equipment with a Stop Banner, record the event as test 374.

#### FAILURE DEFINED

Record this test is a failure when on-track equipment fails to yield for vehicular traffic at or approaching the road crossing.

## 385 Fouling Track – MW & Telecom

### OBJECTIVE

This test is conducted to determine employee responsibility to cross tracks safely when authority or protection is not required; employee knowledge of on-track safety being utilized where necessary through required job briefings prior to fouling tracks; and compliance with rules, instructions, warning signs, etc. when crossing a track with a vehicle or off-track equipment.

NOTE: This test is not to be used to document the correct application of authority or protection. Such observations are to be recorded under OPT 350 or 404.

### APPLICABLE RULES

MWOR 1.20, 11.3, 11.4; MW Safety Rules S-1.1, S-1.2.3, S-1.2.6, S-1.6.1, S-12.1.2, S-13.1.3

### PREPARATIONS / PROCEDURES

Observations may be conducted when employees are crossing or fouling tracks.

Review local instructions pertaining to fouling tracks and operation of/ or riding in vehicles on or near tracks.

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

### FAILURE DEFINED

#### 385-1 Incidental Fouling (employees outside a vehicle or off-track equipment)

During incidental fouling of a track (such as walking across the track) the employee:

- Does not determine it is safe to do so by stopping, looking and listening prior to fouling
- Does not move directly and promptly to a position clear of the track
- Does not cross a sufficient distance from standing equipment
- Carries tools or materials restricting motion, impairing sight, hearing or ability to safely move away from approaching on-track movements

#### 385-2 On-track Safety Job Briefing Requirements

Employee fouling track in performance of work requiring a method of authority or protection is unable to identify the:

- Employee in Charge
- Method of on-track safety being utilized as defined in the required job briefing
- Designated place of safety used to clear for on-track movement (where required)

#### 385-3 Crossing Track with Vehicles

Employee operating or occupying a vehicle (or off-track equipment) does not:

- Comply with signs, rules or instructions before crossing or operating foul of the track
- Approach a non-public grade crossing as close to a right angle as practical to allow for optimal viewing of approaching on-track movement
- Completely stop to check for on-track movement prior to moving across a non-public grade crossing

### DATA REPORTING

When prompted to enter a 'Rule Book Code' enter "X", then when prompted to enter a 'Rule Number' enter the appropriate segment code for the observation (385-1, 385-2 or 385-3) based on the criteria listed above under 'Failure Defined'.

## **402 Fall Protection—Telecom Safety Essential**

### **OBJECTIVE**

This test is designed to focus on using fall arrest system and tower rescue equipment in an approved manner. Fall protection includes specific fall protection PPE and specific procedures utilizing this equipment.

APPLICABLE RULES Engineering Instruction 1.4; MOW Safety Rules S-20.11, S-27-7, and Telecommunications Policy for Fall Protection for Towers and Other Structures Used for Telecommunications

### **PREPARATIONS / PROCEDURES**

#### **402-1 Mandatory Briefings and Training**

- Employees must conduct a safety job briefing before starting work.
- Employees will use a copy of the “BNSF Telecommunications Safety and Job Briefing” form to summarize details and must include all personnel and work groups at the location.
- Re-briefing is required if additional personnel arrive at the job site or if conditions change.
- The work assignments for rescue and the rescue method will be established during the safety job briefing.
- All employees must attend fall protection and rescue training prior to climbing.

#### **402-2 Inspections and Logs**

- The rescue system, complete and in its storage bag, will be inventoried/inspected and available either at the base of the structure or carried aloft and tied to the tower near the work location.
- Each worker must inspect his equipment before and after each use, and record the inspection in a logbook.
- Each worker’s equipment must be inspected annually by a competent person other than the user and the inspection must be recorded in the user’s logbook.



**402-3 Procedures and Precautions**

- Use personal fall arrest equipment when ascending to and descending from work locations on telecommunication towers, and when at work locations.
- Use work positioning equipment to supplement the use of fall arrest equipment when working in a stationary location on telecommunication towers. The use of work positioning equipment is not a substitute for the use of fall arrest equipment.
- Employees who perform work on towers or other structures above four feet must protect themselves.
- Rescue system components shall not be used for any other purpose.
- The fall arrest system shall be used to limit free fall distance to six feet or less.
- A screw-pin shackle or a clevis shall not be used for any portion of a fall protection system.
- Non-self locking carabineers with a threaded gate or other manual-locking gate, and non-double locking snap hooks are not allowed for any purpose and shall be removed from the property.
- When hoisting or lowering tools, steel, or any other equipment on the tower, all workers on the tower and on the ground that are not directly involved with the hoisting or lowering operation will stop work, remove themselves from the area of operation, and watch the load.
- Personnel inside a building will stop work, vacate the building, and remove themselves from the area of operation until the load is secured to the tower or is safely on the ground.
- Perform telecommunications work on the tops of locomotives where approved fall protection systems are available.

**FAILURE DEFINED**

The observation result is a failure when any tasks or elements noted are not done in accordance with the rules and/or Telecommunications Policy for Fall Protection.

This test is designed to require a special code to be entered that will provide specific testing information. When prompted to enter a "Rule Book Code" the code to be entered is "T". When prompted to enter a "Rule Number", use the appropriate code(s) that reflects the observation made based on the segment numbers (402-1, 402-2, or 402-3) under the Preparation / Procedure section above.

## 403 Lock Out/Tag Out—Telecom Safety Essential

### OBJECTIVE

The Lock Out / Tag Out (LOTO) OPT determines the Telecom employee is in compliance with lockout/tag out requirements when inspecting, servicing, or performing maintenance activities on machinery or equipment that may unexpectedly energize, start, or release stored energy.

### APPLICABLE RULES

MOW Safety Rule S-16.17 and EI 1.10

### PREPARATIONS / PROCEDURES

This test may be conducted anywhere employees are observed working with equipment that has potentially hazardous energy sources. These sources may be electrical, mechanical, hydraulic, gravitational or thermal. Observe for the following:

- Hazardous Energy Control Plan (HECP) is complete, up to date, and properly.
- Proper Lock Out Tag Out Devices were properly applied.
- Lockout-capable equipment was locked out rather than tagged.
- Verification equipment was properly locked out before beginning work.
- Locked or tagged out equipment properly returned to service when work is completed.

### FAILURE DEFINED

The test is a failure when the observed employee is engaged in an activity that requires LOTO and they do not meet any of the requirements by the rules noted above and noted in the Preparation/ Procedure for this OPT.

## 404 Track Occupancy—Telecom Safety Essential

### OBJECTIVE

The Track Occupancy test determines MW employee compliance with track authority or protection while occupying or fouling track.

### APPLICABLE RULES

MWOR 6.3.1, 6.3.2, 6.3.3, 12.2 and 12.3

### PREPARATIONS / PROCEDURES

This test applies to employees governed by MW Operating Rules, and may be conducted anytime these employees are found occupying or foul of a track.

- 404-1** MWOR 6.3.1 – When a main track, controlled siding, or any track where a block signal system is in effect is occupied or fouled by roadway workers, verify proper authority has been granted consistent with the type of operation for that location as identified in the timetable/ special instructions.

When the track authority is granted jointly with other work groups (including train crews), verify the employee in charge contacts each of the other work groups and conducts a job safety briefing with them prior to occupying or fouling the overlapping authority limits. Verify working limits are properly documented. If overlapping working limits are established, verify a single employee in charge has been identified for the overlapping working limits. If one of the track authorities is a Track Bulletin Form B, the employee in charge of the Form B will also be in charge of any overlapping limits. Before occupying a main track, controlled siding or any track where CTC is in effect, employees must have information concerning all track bulletins Form B's in effect that may overlap their authority.

- 404-2** MWOR 6.3.2 – On tracks other than a main track, controlled siding, or any track where a block signal system is in effect, Roadway workers may establish working limits by providing protection using one or a combination of the following:
- All switches that provide direct access to the working limits are lined against movement, tagged, and effectively spiked, clamped, or locked with an effective locking device.
  - A red flag or light and a derail locked in the derailing position are placed at least 50 feet from the work location (150 feet where the track speed is greater than 5 mph). Protection by red flag and portable derail may only be used when it is known that on-track equipment or railroad cars are the only type of equipment that a portable derail will be protecting against. Portable derails may not be used to protect against locomotives.
  - Remotely controlled switches, including those in a hump yard facility, have been lined against movement to the affected track and locking/blocking devices have been applied to the respective switch controls.
  - A flagman is positioned to hold all trains and on-track equipment clear of the working limits.
  - A discontinuity in the rail is created to prevent movement into the working limits.
  - Working limits are established on a main track, controlled siding or any track where a block signal system is in effect to prevent movement into working limits established on other than main track.
  - A train or engine is flagged to a stop and its crew issued instructions to make all movements only as directed by the employee in charge of the working limits.
- 404-3** MWOR 6.3.3 - A track may be fouled by a roadway worker while:
- Performing minor work that will not affect the movement of trains.
  - Performing a routine inspection when a lone worker uses individual train detection (outside the limits of a control point or remotely controlled hump yard facility).
  - A roadway work group has an assigned lookout whose only duty is to provide train approach warning.
- Verify lone workers and lookouts are trained and rules qualified. Verify prior to fouling the track, a job safety briefing has been conducted and a Statement of On-Track Safety has been properly completed, indicating the identity of the lookout, place of safety where all roadway workers will position themselves at least 15 seconds prior to the arrival of a train, and indicate the method that the lookout will use to warn members of the roadway work group of the approach of a train or on-track equipment.
- 404-4** MWOR 12.2– Work may be performed adjacent to a live track using the Special Operating Guidelines under the following conditions:
- You may perform maintenance with production rail grinders or rail detectors while a train is passing on an adjacent main track or controlled siding.
  - You may perform maintenance with other on-track equipment, referenced in MWOR 12.3, while a train is passing on an adjacent main track or controlled siding if a Track Bulletin Form B is in effect on the adjacent main track(s) or controlled siding and the EIC has instructed the passing train to pass people and equipment at:
    - 40 MPH or less on tangent track,
    - or
    - 25 MPH or less where curves or gradients obscure vision.

- Workers on the ground required to foul an adjacent track while performing a task associated with the track on which they are working must be protected by a lookout if working limits are not established on the adjacent track. The provisions for lookout protection must be strictly complied with, and under no circumstances may equipment or material foul the adjacent track under lookout protection. Workers on the ground must not work between the tracks while a train is passing.
- MWOR 12.3 - When a work group is working over an extended distance and the group has been divided into subgroups, the EIC and the subgroup coordinators will use the Subgroup Coordinator Notification form to ensure that all members understand that a train is approaching.

#### **FAILURE DEFINED**

- 404-1**
- Record this test as a failure when track cars, men, or equipment are occupying or fouling a track without proper authority as required by MWOR 6.3.1.
  - Record this test as a failure when track cars, men, or equipment are occupying or fouling a track with proper authority, but have the following documentation errors:
  - Track and Time, Track Permit and Foul Time:
    - Conditions of Authority (behind) not recorded or incorrectly identified, when applicable.
    - Track not recorded or incorrectly identified.
    - Track Authority Limits not recorded or incorrectly identified.
    - Time Limits Authorized is not recorded or incorrectly identified.
    - Joint Status is not recorded or incorrectly identified, when applicable.
    - OK Time is not recorded or incorrectly identified.
1. Track Warrant, MW Track Authority Form and OCS:
    - Failure to mark the boxes specified.
    - Authority in effect behind or following a train not recorded or incorrectly identified, when applicable.
    - Track not recorded or incorrectly identified.
    - Track Limits Authorized not recorded or incorrectly identified.
    - Joint Status (and/or Overlaps, where required) is not recorded or incorrectly identified, when applicable.
    - Track Released (Roll-Ups) Limits is not recorded or incorrectly identified, when applicable.
    - OK Time is not specified or incorrectly identified.
  2. Track Bulletin Form B:
    - An employee fails to obtain information concerning all Form B's that may overlap his authority prior to occupying the track.
  3. Working Limits Form (Generally) – when working limits are required to be established within overlapping authority limits:
    - Employee in Charge is not recorded or is incorrectly identified for each set of working limits.
    - Working Limits not recorded or incorrectly identified.

4. Working Limits Form (Multiple Work Groups) – when the Working Limits Form is required of an employee who does not hold an authority, but is using another employee’s authority in a “Multiple Work Group Using the Same Authority” situation:
    - Employee in Charge is not recorded or is incorrectly identified for each set of working limits.
    - Working Limits not recorded or incorrectly identified.
    - At Time not recorded.
    - Clear Time not recorded.
  5. Multiple Work Groups Using the Same Authority Form – (EIC of the authority):
    - Authority Number not recorded or incorrectly identified.
    - Working Limits not recorded or incorrectly identified.
    - Time Acknowledgement received not recorded.
    - Time Authority Limits cleared not recorded.
- 404-2** Record this test as a failure when Roadway workers have not properly established protection for working limits on other than a main track, controlled siding, or any track where a block signal system in effect using one or a combination of the methods required by MWOR 6.3.2.
- 404-3** Record this test as a failure when visual detection is being utilized and the Statement of On-Track Safety is not properly completed and/or the requirements of MWOR 6.3.3 are not met.
- 404-4** Record this test as a failure when:
- Employees continue to occupy or work between adjacent tracks while a train is passing.
  - On-Track Equipment specifically designated to stop working by the tables in MWOR 12.3 continue to work while a train is passing.
  - Employees required to use the Sub-Group Coordinator Notification form fail to document the required information to ensure that all employees have been notified of an approaching train.

#### **DATA REPORTING**

This test has been designed to require a segment code to be entered.

When prompted to enter a “Rule Book Code”, enter “M”, and when prompted to enter a “Rule Number” use the appropriate segment code above associated with your observation.

## 405 Boom Equipped Vehicles and Equipment— Telecom Safety Essential

### OBJECTIVE

Verify that boom equipped vehicles are being used in accordance with manufacturer's instructions, that outriggers are in place as specified and are in compliance with policy and manufacturers recommended lifting and carrying capacity requirements as indicated by the load chart prior to moving boom, lifting or carrying.

### APPLICABLE RULES

MWOR Safety Rules S-17.2.3, S-17.2.5, S-17.2.6 and EI 15.4

### PREPARATIONS / PROCEDURES

Outriggers must be used on vehicles so equipped as specified by manufacturer's instructions. Only employees so qualified may operate vehicles equipped with specialized equipment such as outriggers. Employees must ensure that outriggers are in place as specified by the manufacturer of the vehicle. Loads must not be lifted or carried when they exceed weight specified in the load chart.

This test may be conducted any time employees are required to use boom equipped vehicles.

### FAILURE DEFINED

This test is a failure when any of the following are observed:

- Outriggers are not used as required by BNSF or in accordance with the manufacturers written instructions per S-17.2.3 (segment 353-1)
- Power line clearance are not maintained as required per S-17.2.5 (segment 353-2)
- Loads are moved before all people are clear or loads are moved over people or occupied equipment per S-17.2.6 (segment 353-3)
- Steering wheel covers are not in place as required per EI 15.4 (segment 353-4)

### DATA REPORTING

Supervisors will use the appropriate "Rule Book Code" (either "S" for MWOR Safety Rules or "E" for Engineering Instruction) based on the rule's source. Supervisors will then enter the associated segment number reference.

## 410 Material and Equipment—Telecom

### OBJECTIVE

This OPT determines the Telecom employee is following the proper methods in managing material and equipment.

### APPLICABLE RULES

MW Safety Rules S-11, 11.1, 11.2, 11.3, 11.4, 11.5, 11.7

### PREPARATIONS / PROCEDURES

This test can be conducted anywhere employees are observed handling material or equipment. The employee should be observed for the following:

- Proper lifting techniques and ensure material is stacked correctly.
  - the use of applicable lifting devices and PPE when necessary.
- Material stored so that it does not block fire exists, sprinklers, extinguishers or emergency medical equipment.
- The storage facility will have adequate clearance in the aisles and will be free of tripping, fire and pest hazards.
- When using power vehicles to handle material the vehicles will be in good working order, driven at safe speeds and operated by trained and authorized personnel.

### FAILURE DEFINED

The observation results in a failure when any of the proper material and equipment handling does not meet the requirements in the rule as mentioned in the Preparation/Procedure section of this OPT.

## 411 Vehicle Operations—Telecom

### OBJECTIVE

The Vehicle Operations Test monitors employee compliance with rules or instructions relating to the operation of motor vehicles.

### APPLICABLE RULES

MW Safety Rules S-8.3.2, S-11.8.2, S-11.8.3, S-11.9.1 through S-11.9.9, S-12.1.1, S-12.2, S-12.4, S-12.5, S-12.6, S-12.8, S-12.9.1, S-13.1.3, Traffic Cone Instructions

### PREPARATIONS / PROCEDURES

Test can be conducted any time employees are operating motor vehicles where the above safety rules apply Examples are:

- Stopping for flares and/or flashing lights in Intermodal facilities
- Forklift operation
- Backing motor vehicles
- Operation of all terrain vehicles and utility vehicles
- Parking – Use of traffic cones

Use the following test segment codes to record observations for the listed safety rules:

**411-1 Vehicle Operations** (rules S-8.3.2, S-12.5, S-12.1.1)

**411-2 Fork Lift Operations** (rules S-11.8.2, S-11.8.3, S-11.9.1, S-11.9.5, and S-11.9.6)

**411-3 Backing** (rule S-11.9.3, S-12.8)

**411-4 Fouling Tracks or Roadways** (rule S-12.9.1, S-13.1.3)

**411-5 All Terrain Vehicles (ATVs) and Utility Vehicles** (rules S-12.2, S-12.4)

**411-6 Parking** – Use of traffic cones (rule Traffic Cone Instructions)

**FAILURE DEFINED**

The employee observed did not comply with the identified rule or instruction during the operation of a vehicle.

**DATA REPORTING**

Supervisors when prompted to enter a "Rule Book Code" should use "S". When prompted to enter a "Rule Number" use the appropriate test segment code described above that reflect your observation.

**412 PPE—Telecom****OBJECTIVE**

The Personal Protective Equipment for Specific Tasks Test monitors employee compliance with the rules related to wearing Personal Protective Equipment and clothing (PPE). This test does include compliance with the following portions of S-21.1 (Hard Hats, Safety Glasses and Safety Boots).

**APPLICABLE RULES**

MW Safety Rules S-1.3.1, S-1.3.2 and S-21.1 through S-21.34 less the exceptions to S-21.1 listed above. The tested employee is required to wear the proper PPE and clothing for work conditions as described in S-21.0 and the Personal Protective Equipment Charts and S-21.30 through 34.

**PREPARATIONS / PROCEDURES**

Determine the type of specific PPE required for the observed activity.

NOTE: Specific PPE requirements are not required

When performing office tasks in office areas,

- Inside highway or hi-rail vehicles when windows are completely closed.
- In enclosed work equipment cabs (not including locomotive cabs) when windows are completely closed, or inside passenger-carrying rail cars.

Observe the employee and verify that job specific PPE requirements have been met.

**FAILURE DEFINED**

The observed employee failed to wear job specific PPE excluding fall protection requirements.

Note: Fall Protection requirements are recorded under test 402



## 601 Speed Requirements

### OBJECTIVE

The Speed Requirements Test determines that a train or engine is in compliance with the maximum allowable speed for any given location. This test will allow for the testing Manager to input the results of the speed test, as well as the corresponding rule or special instruction that mandates the maximum speed.

### APPLICABLE RULES

- GCOR 6.31; System Special Instructions and Division Timetable Instructions Nos. 1 (A, B, C, D).

### PREPARATIONS / PROCEDURES

1. Determine maximum speed for the train or engine at the selected testing location.
2. Determine the method of measuring the speed at the testing location. If radar gun is to be used, follow the manufacturer's recommendation for testing the device.

Measure train or engine speed by using:

- Radar Speed Measuring Device—Verify the speed recorded is in compliance with the maximum allowable speed at the testing location,  
or
- Event Recorder Measurement—If frequent or prolonged speed infractions are noted on the event recorder data, verify the accuracy of the locomotive wheel measurement. If the wheel measurement is accurate, record as a failure and contact the employee tested.

Note: When event recorder is used, the date entered into the computer should be the date the event occurred.

This test has been designed to require a special code to be entered that will provide specific testing information. When prompted to enter a Rule Book Code the code to enter is G. When prompted to enter a Rule Number, use one of the following codes based on your testing situation:

- When the test is based on maximum authorized timetable speed enter the code MAX TT SPEED
- When the test is based on a temporary speed restriction enter the code TEMP SPD RES.
- When the test is based on a permanent speed restriction enter the code PERM SPD RES.
- When the test is based on Movement at Restricted Speed and only speed is checked enter the code REST-6.27
- When the test is based on Movement on Other than Main Track and speed is checked enter code REST-6.28

### FAILURE DEFINED

The test is a failure when maximum speed allowed at the testing location is exceeded frequently and/or substantially.

## 602 Trains/Engines/Cars Left Unattended

### OBJECTIVE

The Trains/Engines/Cars Left Unattended Test determines that trains, engines or cars are properly secured.

### APPLICABLE RULES

GCOR 7.6; ABTH Rules 102.1, 102.1.1, 102.1.2, 104.14; MWOR 7.6; Mechanical Safety Rule S-10.9

### PREPARATIONS / PROCEDURES

This test may be conducted at points where trains, engines or cars are being set out or have been set out.

When train or cars are to be left unattended, locomotive(s) not attached:

- Observe that a sufficient number of hand brakes on cars or on train that has been left standing unattended.
- Observe that the angle cock has been left open on the end of train or cars detached from the locomotives.

When train or cars are to be left unattended, locomotive(s) attached:

- Observe that a sufficient number of hand brakes have been set on the locomotive(s) and train to prevent movement in the event of air brake system failure.
- Inspect to see that a 20 PSI automatic air brake application was made and the automatic brake valve was left CUT IN. (See ABTH 102.1.1)
- Inspect to see that throttle is in the idle position and reverser handle is centered and removed (unless the locomotive is being protected from freezing as outlined in Rule ABTH 106.6 (Cold Weather Protection for Locomotives)).
- Inspect to see that generator field switch is in the 'off' position. It is required to have the isolation switch in the isolate position on all locomotives.

When locomotives are left unattended not coupled to cars:

- Observe that hand brakes (ABTH Rule 102.3) have been set on the locomotive(s) to prevent movement in the event of air brake system failure.
- Inspect the lead or controlling locomotive of a consist of locomotives to ensure that independent brake valve is fully applied and cut in, 20 PSI automatic brake pipe reduction has been made and automatic brake valve is cut in.
- Inspect to see that throttle is in the idle position and reverser handle is centered and removed (unless the locomotive engine is being protected from freezing as outlined in Rule ABTH 106.6 (Cold Weather Protection for Locomotives)).
- Inspect to see that generator field switch is in the 'off' position. It is required to have the isolation switch in the isolate position on all locomotives.

When cabless units are left unattended:

- Verify compliance with Air Brake and Train Handling Rules 101.12.
- Observe the angle cock is also left open.
- Verify wheels are chocked.

### FAILURE DEFINED

The test is a failure when the crew or employee fails to:

- Secure equipment left unattended
- Locomotive not coupled to equipment left unattended on main track
- Locomotives left on auxiliary track not protected by derail or facing point switch lined to prevent entry to main track

## 603 Radio Usage

### OBJECTIVE

The Radio Usage Test determines that employees practice proper radio procedures.

### APPLICABLE RULES

All radio related rules not included in other Operations Test observations.

### PREPARATIONS / PROCEDURES

This test can be conducted anytime employees are using radio communications.

Observe that all transmissions are consistent with existing rules including:

- Transmission begins with required identification
- Instructions are repeated as required
- Employees make proper use of the terms “Over” and “Out”
- Radio communications are not misused and prohibited communications do not occur

During shove movements the word “STOP” is used to instruct the employee at the controls of locomotive to stop

### FAILURE DEFINED

This test is a failure when:

**603-1** A Failure is observed not consistent with existing rules except GCOR 6.5

**603-2** Use of a word other than “STOP” is used to instruct the engineer to stop

### DATA REPORTING

The test has been designed to require a rule book code and segment number or rule number to be entered.

When prompted to enter a “Rule Book Code” enter a “G” for GCOR, “M” for MWOR, or “S” for Mechanical Safety Rules depending on the employee’s craft.

When prompted to enter a “Rule Number” a supervisor may enter or choose any one of the following choices:

**603-1** Use this segment for one or more radio rule for a ‘passing’ observation

**603-2** TY&E employees only: when another word is used other than ‘STOP’ to instruct the employee at the controls of the locomotive during shove movements

**Specific rule number** (for example 2.2 for GCOR or MWOR; or 23.2 for Mechanical Safety Rules). Use this method when there is an identified ‘failure’. Select the specific rule number using the menu choice (F1 key) or enter the rule number desired.

## 604 Not in use—See Attachment B-015 Alcohol & Drug Observations

## 605 Utility Employee

### OBJECTIVE

The Utility Employee Test determines that the proper communications and notification are made to ensure the safety of the utility employee.

### APPLICABLE RULES

GCOR 5.13.1

### PREPARATIONS / PROCEDURES

Observe or verify one or more of the following:

- Train or yard crew is assigned a locomotive controlled by crew's engineer.
- Utility employee used direct verbal contact or radio communication to establish communications with the designated crew member before beginning work with crew.
- Designated crew member informs all other crew members, receives acknowledgments from crew, and informs utility employee that he/she is authorized to work.
- When utility employee is attached to the crew, the engineer is in the cab of the assigned locomotive (if the locomotive is stationary, the engineer may be replaced by another member of the same crew).
- Communications are maintained so that crew understands the work to be done and whether any crew member is on, under or between rolling equipment.
- Utility employee advises designated crew member that he/she has ceased work with the crew and is no longer on, under or between rolling equipment.
- Designated crew member then notifies crew, receives acknowledgments and releases the utility employee.

### FAILURE DEFINED

The test is a failure when employees do not perform all of the requirements contained in Rule 5.13.1.

## 606 ETD

### OBJECTIVE

The ETD test assesses proper compliance with various rules that require capability of emergency application of the brakes from the rear of the train by:

- ETD/HTD properly installed.
- ETD/HTD properly armed.
- Alternate means of rear-end induced emergency where required by ABTH, when two-way not armed) such as, rear end helper, remote consist, occupied caboose or other occupied car on rear of train.

### APPLICABLE RULES

GCOR 5.10; ABTH 102.13, 102.13.1, 102.13.3, 102.13.4, 102.13.5, 102.14, 105.7.3.

**PREPARATIONS / PROCEDURES**

Arrange to be present at a location where two-way ETD/HTDs are installed. Observe proper installation and testing of the device, including the emergency brake application test, or

Stop a train which is required to have the capability of emergency braking from the rear end. Determine that they have:

- A two-way ETD/HTD properly installed and armed,  
or
- Capability of causing an emergency application of the train brakes by an alternate means as prescribed by ABTH 102.14.

Observe the installation and testing of ETD/HTD, including rear end emergency application test as required by rule, Timetable Special Instructions, or General Order. Or, board a stopped train and observe that rear-end emergency brake inducement is possible as prescribed above. Observe that HTD indicates “ARMED” and “EMER ENABLED”, if two-way equipped.

**FAILURE DEFINED**

This test is a failure when a train which is required to have the capability to induce an emergency brake application from the rear end is not properly equipped and/or does not have the two-way ETD armed or exceeds 30 MPH when train can proceed.

**607 Signal Awareness/Position Of Switch Form****OBJECTIVE**

The Signal Awareness/Position of Switch Form Test determines that crew members are in compliance with the requirements as outlined in System Special Instructions.

**APPLICABLE RULES**

- System Special Instructions.
- Signal Awareness/Position of Switch.
- Division instructions relating to completion and filing of the form(s).

**PREPARATIONS / PROCEDURES**

Ensure that the form is properly completed as required by System Special Instructions.

Anytime a train is boarded by the testing manager, a review of the Signal Awareness / Position of Switch form may be conducted validating proper completion as defined by System Special Instructions. This test may also be performed by auditing completed forms after they have been filed.

In addition, this test may be performed by use of event recorder data or Traffic Management Systems to determine that the form is complete and consistent with actual train event data.

In non-signaled or Double Track ABS territory (except in restricted limits and yard limits), the testing manager must ensure the following:

- Crew member records the name, location and time/initials of all hand operated main track switches, switch point locks and derails used as soon as practical after the initial use.
- Crew member records time/initials all hand operated switches, switch point locks and derails are finally restored to the normal position after work activity at that switch/derail is complete.
- Ensure that the conductor and engineer have initialed each entry on the form prior to departing the location.
- Ensure the form is complete and signed by the conductor when the form is turned in.
- If radio becomes inoperable, validate that the required notation is made on the form.

**FAILURE DEFINED**

This test is a failure when any of the following are noted:

Employees in the cab of the lead or controlling locomotive fail to have Signal Awareness/Position of Switch form completed as required by System Special Instructions.

Employees fail to submit an accurate completed Signal Awareness/Position of Switch form as required by division instructions.

In non-sigaled or Double Track ABS territory (except in restricted limits and yard limits) any of the following did not occur:

- A crew member fails to record the name, location and time /initials of all hand operated main track switches, switch point locks, and derails as soon as practical after initially used.
- A crew member fails to record the time/initials of all hand operated main track switches, switch point locks, and derails are finally restored to the normal position after work activity at that switch / derail is complete.
- The completed Signal Awareness/Position of Switch form does not include the initials of the conductor and engineer in the proper location prior to train departure.
- The conductor's signature is not on the form when turned in at the end of tour of duty.

**608 Void Directives****OBJECTIVE**

Verify voided mandatory directives are marked "VOID".

**APPLICABLE RULES**

GCOR 6.11

**PREPARATIONS / PROCEDURES**

Review a mandatory directive document to ensure "VOID" is written on the form when:

- Employee reports clear of authority limits, or
- Mandatory directive is made void

**FAILURE DEFINED**

The word "VOID" is not written across the voided portion of each copy of the mandatory directive when reported clear or made void.

**609 Whistle Signal/Grade Crossing****OBJECTIVE**

The Grade Crossing Approach Test verifies that train crews observe all whistle requirements approaching all road crossings equipped with whistle posts.

**APPLICABLE RULES**

GCOR 5.8.2, System Special Instructions – Item 15 (Supplement to GCOR 5.8.2) and applicable Subdivision General Order (or Notice)

**PREPARATIONS / PROCEDURES**

This test can be conducted at any road crossing equipped with whistle posts.

- 609-1** Verify that the lead locomotive traveling in excess of 45 MPH starts whistle signal (7) at the whistle post, but not more than 1/4 mile before the crossing. The test is a failure: If the whistle signal does not commence at the whistle post, but not more than 1/4 mile before the crossing.
- 609-2** Verify that the lead locomotive traveling at 45 MPH or less sounds whistle signal (7) at least 15 seconds, but not more than 20 seconds before the lead locomotive enters the crossing. The test is a failure: If the whistle signal is not sounded at least 15 seconds, but not more than 20 seconds before entering the crossing.
- 609-3** Verify that the lead locomotive is stopped less than 1/4 mile from the crossing. Verify that whistle signal (7) is sounded at least 15 seconds before the lead locomotive enters the crossing if traffic is approaching or stopped at the crossing or if the gates are not fully lowered.

Note: This may require the whistle to be sounded before actual movement of the lead locomotive. The test is a failure: If the whistle signal is not sounded at least 15 seconds before entering the crossing if traffic is approaching or stopped at the crossing or if the gates are not fully lowered.

- 609-4** Verify that whistle signal (7) is distinctly sounded as two long, one short and one long. The test is a failure: If whistle signal pattern of two long, one short and one long is not sounded.
- 609-5** Verify that whistle signal (7) is prolonged or repeated from the time the whistle is required to be initiated until the lead locomotive passes through the crossing. The test is a failure: If the whistle signal is not sounded until the lead locomotive passes through the crossing.

Note: For 609-1 through 609-5; in addition to the locomotive engineer, other crew members present in the cab of the locomotive should be failed only when the noted exception has occurred at multiple crossings.

- 609-6** If the crew fails to sound any form of a whistle signal at a road crossing where the whistle signal is required to be sounded. Other crew members should also be failed when present in the cab of the locomotive.

Note: The term “lead locomotive” used above includes the following lead locomotive of a train, lite locomotive consist, individual locomotive or lead cab car.

Certain states may have different whistle requirements for private crossings.

At slow speeds, whistle signal (7) should be repeated rather than using long sounds.

- 609-7** Verify that no whistle signal is sounded at crossings that are established Quiet Zone locations.

Event recorder data may be used to determine compliance with the requirements of this test. Up to three (3) events may be entered from one event recorder tape. Record the actual date, time location and outcome for each event separately.

#### **DATA REPORTING**

This test has been designed to require a special code to be entered that will provide specific testing information. When prompted to enter a “Rule Book Code” the code to be entered is “G”. When prompted to enter a “Rule Number”, use the appropriate code above that reflects your observation.

If an Amtrak train operating over BNSF territory is involved in an alleged failure to properly sound the engine whistle, contact the Passenger Operations Team at (817) 234-7332 or 800-871-0902 who will handle with Amtrak CNOC and appropriate Amtrak Division Officers.

## 610 Horsepower Compliance

### OBJECTIVE

The Horsepower Compliance Test determines ensures compliance with BNSF fuel conservation policy regarding isolating horsepower.

### APPLICABLE RULES

ABTH 106.1

### PREPARATIONS / PROCEDURES

1. Verify that crew isolates horsepower in excess of scheduled HPT as displayed on the train profile and/or train list, unless isolating excess horsepower would cause train to fall more than .5 HPT below scheduled HPT. "Z, Q or P" trains must isolate as close to but not below scheduled HPT.
2. Verify that crew isolates excess horsepower when advised of trains scheduled HPT by the train dispatcher as above.
3. Verify that empty unit coal, taconite, grain and potash trains operate with not more than 9000 horsepower on-line.

Exception: Empty coal trains on the Black Hills, Butte, Canyon, Dalhart, Orin, and Galveston Subdivisions may operate with a maximum of 12,000 horsepower.

Event recorder data may be used to determine if locomotives are isolated.

### FAILURE DEFINED

The test is a failure when crew fails to isolate excess locomotives, except when relieved by train dispatcher.

## 611 Locomotive Shutdown

### OBJECTIVE

The Locomotive Shutdown Test determines that locomotives are shut down at all points when locomotive will not be used within one hour and ambient temperature is 40 degrees or above.

### APPLICABLE RULES

ABTH 106.3 and 106.4

### PREPARATIONS / PROCEDURES

1. Verify that crew practices shutting down locomotives when they will not be used within one hour and ambient temperature is 40 degrees or above.
2. Verify that crew practices shutting down locomotives which have been isolated for fuel conservation or mechanical defects when ambient temperature is 40 degrees or above.

Note: This Locomotive Shutdown Test does not apply under the following conditions:

- Lead locomotive should not be shut down when consist is left attached to a train, in order to maintain integrity of brake pipe and prevent delay of Initial Terminal type air tests.
- Locomotives equipped with Smart Start or Auto Start should not be manually shut down unless defective or to perform maintenance.
- Locomotives should not be shut down when train dispatcher or supervisor instructs crew that locomotives will be used within one hour.

### FAILURE DEFINED

The test is a failure when locomotives idle more than one hour when left standing or when locomotives are improperly shut down, such as when switches have been left on that would drain batteries and prevent successful starting.



## 612 TWC Meeting Point/Signal—Radio Transmission

### OBJECTIVE

The TWC Meeting Point/Signal-Radio Transmission Test determines that train crew members are in compliance with the communication and documentation requirements at signals or meeting points.

### APPLICABLE RULES

SSI Item 15 Track Warrants - TWC Meeting Point

Division Instructions - Signal-Radio Transmission (Check division timetable/general order for requirements).

### PREPARATIONS / PROCEDURES

#### Non-signaled territory

**612-1** Determine the proper radio channel assigned on the specific subdivision where the test will occur. Establish a point approximately 2 miles in advance of a siding or junction where radio transmission is expected.

Note: Automatic switches, distant signals or switch point indicators do not change territory from non-signaled designation.

Monitor radio transmission for proper announcement by radio at the required location.

or

**612-2** Communicate with the train dispatcher to validate that condition exists where a “Not in Effect Until After the Arrival of \_\_\_\_\_” track warrant will be issued to the train to be tested. Determine the proper radio channel assigned on the specific subdivision where the test will occur. Establish a point where visibility of the stopped restricted train can be monitored.

When “Not in Effect Until After the Arrival of \_\_\_\_\_” is issued, the testing officer(s) must:

- Monitor radio communication and validate that the train dispatcher advises the train receiving the after arrival authority the identification of the train(s) that will be listed in after arrival track warrant (by initials, engine number and direction).
- Monitor radio communication and validate that the train being restricted establishes the location of the train(s) identified (by initials engine number and direction), advises the dispatcher that direct communication has been established and also the location of the trains(s) contacted.
- Observe and validate that the restricted train has stopped at the meeting point and has notified the dispatcher that they are stopped. After the meet has occurred, the train with after arrival authority must establish positive radio contact with the trains listed to confirm the identity of the passing train; if radio communication cannot be established with the train(s) listed, monitor radio communication to ensure that the dispatcher is contacted and the required confirmation provided.
- Observe the track warrant containing after arrival information and validate that the engineer and conductor have noted on the track warrant the identification, time passed and location passed, or the current time and location of the train that was met.
- Ensure that the restricted train does not leave until the train(s) listed on the authority has arrived at the meeting point.

**Signaled territory**

**612-3** In signaled territory, position a testing officer to visually monitor signal indication as train passes the signal requiring a radio transmission. Validate that the proper radio channel established for the territory being tested on has been selected prior to conducting this test.

Monitor radio transmission for proper announcement at the required location. Recorded audio communication and electronic traffic management data may also be used in determining signal indication, train location, speed and proper announcement. This test applies to all crew members in the controlling locomotive.

**FAILURE DEFINED**

This test is a failure when:

**Non-signaled territory:**

- 612-1**
- Transmission is not made approximately 2 miles in advance of a siding or junction.
  - Transmission is made on a channel other than that identified by subdivision special instructions.
  - Transmission does not contain the required information in proper format.
- 612-2**
- Dispatcher fails to advise the identity of the train(s) to be listed in Box 7 (notify chief dispatcher for OPT entry).
  - Restricted train fails to communicate with and/or determine location of train(s) to be met.
  - Restricted train fails to inform the dispatcher when direct communication has been made and/or the location of the train(s) contacted.
  - Restricted train is not stopped at the meeting point when Box 7 authority is issued.
  - Restricted train fails to communicate with the train(s) listed in Box 7 as the train(s) pass validating proper identity. If radio communication cannot be established the restricted train fails to contact the train dispatcher to establish proper identity of the train(s) that have passed.
  - Restricted train occupies the limits of track warrant containing Box 7 authority prior to the arrival of trains listed in Box 7.
  - Restricted train crew has failed to document the identification and time that trains listed in Box 7 as required.

**Signaled territory:**

**612-3** Transmission is not made at the applicable signal in the proper format as indicated by division instructions.

**DATA REPORTING:**

Data entry for this test will require the testing Supervisor to enter all items reviewed during the testing observation. This test has been designed to require a special code to be entered that will provide specific testing information. When prompted to enter a "Rule Book Code" the code to be entered is "T". When prompted to enter a "Rule Number", use one of the following codes based on your testing situation:

- For tests monitoring radio announcement 2 miles in advance of a siding or junction, use code: 612-1.
- For tests monitoring compliance with communications, train identification, documentation and authority limits as related to Box 7 authority, use code 612-2.
- For tests monitoring division specific requirements for radio announcement of signals, use code 612-3.

## 613 Clear Of Limits—Non-Signaled/DT-ABS

### OBJECTIVE

This test is designed to determine that a train crew, without a crew member at the rear of the train operating in non-signaled or double track ABS territory, has validated that the entire train is intact and properly reported all required information to the train dispatcher as outlined by the rules.

### APPLICABLE RULES

GCOR 8.3, 9.15.2, 14.7, and 14.10, System Special Instructions Item 15 (Reporting Clear/Releasing Track Warrants).

### PREPARATIONS / PROCEDURES

Ascertain that the train crew has properly reported that their train is in the clear or has properly reported that the train has passed a specific location and has reported that all hand operated main track switches operated are in the normal position and locked unless relieved by track warrant/permit.

The testing manager should ascertain that the rear of the train has a rear-end telemetry device, and air pressure on the head-end device indicates brake pipe continuity, when reporting clear of the limits or when reporting having passed a specific location determine train is complete by one of the following ways:

When train does not have an operative rear-end telemetry device: If an employee, other than crew member, reports to the train crew that the train is in the clear or reports to the crew that the train has passed a specific location, ascertain that the employee has verified that the marker is on the rear of the train.

Ascertain that a crew member can observe the rear car of the train on which the marker is placed.

If the train is stopped to determine that the train is in the clear or reporting having passed a specific location, ascertain that a crew member has verified that the marker is on the rear car of the train.

Ascertain that 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 when reporting clear of limits or when reporting having passed a specific location.

Note: Train crew may only report clear to last detector location.)

Main track switches are lined and locked in normal position, before crew member reports clear of the limits unless relieved by track warrant.

Employee reporting clear of track warrant/permit authority must state name or other identification, track warrant/ permit number being released, and limits being released.

Employee must state position of main track switches when reporting clear of track warrant/permit, the track warrant/permit is made void or a portion of the track warrant is released.

In non-signaled and double track ABS territory, when reporting clear of a track warrant, employee must state the Position of Switch Form has been properly completed.

**FAILURE DEFINED**

The test is a failure (613-1) when crew reports clear of the limits or reports having passed a specific location without brake pipe continuity on the head end device and does not determine train is complete by one of the following ways:

- An employee informs the crew that the train is clear of the limits or has passed a specific location and did not verify that the marker is on the rear of the train.
- A crew member cannot observe the rear car of the train on which the marker is placed.
- The train was stopped and a crew member did not verify that the marker was on the rear car of the train.
- The trackside warning transmitted an axle count for the train, and the axle count did not duplicate the axle count from the previous trackside warning detector.

The test is a failure (613-2) when either of the following did not take place:

- A crew member did not state their name or other identification, track warrant/permit number being released or limits being released.
- A crew member did not job brief with the train dispatcher that all hand operated main track switches used by his or her crew are lined and locked within the limits being released, referencing the completion of the Position of Switch form or stating no entries required.

The test is a failure (613-3) when a crew member did not line the main track switches to normal position before reporting clear of the limits unless relieved by track warrant.

**DATA REPORTING**

Data entry for this test will require the testing Supervisor to enter all items reviewed during the testing observation. This test has been designed to require a special code to be entered that will provide specific testing information. When prompted to enter a "Rule Book Code" the code to be entered is "G". When prompted to enter a "Rule Number", use one of the following codes based on your testing situation:

- Observation for compliance with the requirement to determine that the entire train is intact, use code 613-1.
- Observation for compliance with the requirement to provide all required verbal information when releasing track warrant/permit authority use code 613-2.
- Observation for compliance with the requirement to restore main track switches to normal position use code 613-3.

## 614 Mandatory Directives—TY&E

### OBJECTIVE

This test is designed to determine that employees have copied, repeated, and reported clear of mandatory directives.

### APPLICABLE RULES

GCOR 2.14, 2.14.1, 2.14.2, 6.1, 9.15, 10.3, 14.9, 15.7, 15.11, 18.1

### PREPARATIONS / PROCEDURES

This test should be conducted when mandatory directives are either transmitted or released by radio.

Monitor audio communications or historical voice recordings following the process for transmitting and repeating mandatory directives. Verify that employee copying informs dispatcher when ready to copy and states their name, title and location. Verify that the dispatcher / control operator and field employee have transmitted and repeated each item on the mandatory directive correctly.

- Directions—(North, East, West, South) must be pronounced, then spelled.
- Numbers— if the figure has more than one number, state the number in words then state each figure.
- When the figure has only one number, state the number then spell the word.

The testing supervisor should verify by visual inspection that the mandatory directive was copied correctly, on the proper form, using the correct format and that the proper number of copies were made.

Monitor audio communications or historical voice recordings following the process for reporting clear of authority ensuring the following takes place:

- A clear understanding of the authority being reported clear must be briefed between the field employee and train dispatcher / control operator.
- The train dispatcher / control operator and field employee must carefully match verbally transmitted information against the authority form to ensure the information matches and is correct.

### FAILURE DEFINED

The test is a failure when:

- Name, title and location of copying employee is not given before mandatory directive is issued.
- Mandatory directive is transmitted before the copying employee indicates they are ready to copy.
- Field employee does not indicate they are ready to copy.
- Any written authority does not match the issued wording.
- Any of these directives are not written on the proper form or copies required by rule have not been made.
- Transmission or repetition of directions and numbers are incorrect.
- When required the "OK" time and dispatcher / control operator's initials are missing.
- The field copy of the mandatory directive is filled out in advance of actual radio transmission.
- The name of copying employee when required is missing from the document.

## 615 Block Signal—Approach Aspects

### OBJECTIVE

The Block Signal – Approach Aspects Test determines that proper speed requirements are complied with whenever a train encounters any one of the approach aspect signals. The test applies to crew members riding in the lead unit.

### APPLICABLE RULES

Signal Rules 9.1.6, 9.1.7, 9.1.8, 9.1.10, 9.1.11, 9.1.12; GCOR 9.8

### PREPARATIONS / PROCEDURES

This test may be conducted without special assistance from the train dispatcher or control operator in locations where a train has passed one of the signals listed above. Specific monitoring of event recorder used in comparison with the signal awareness form may also be used to determine compliance with the conditions for this test.

This test may be conducted in conjunction with TEST 203, 205, 208 and 607 but is not considered an automatic test event with these tests unless tested according to the procedure below.

After the necessary preparations have been made:

1. Observe and confirm signal indications before beginning test.
2. Signal indication in advance of signal being tested must be verified and confirmed.
3. Determine speed is in compliance at the signal being tested using radar gun or event recorder analysis in comparison of signal awareness form.

Take into consideration signal in advance and next governing signal (GCOR 9.8) may affect speed.

### FAILURE DEFINED

The test is a failure when crew fails to comply with proper speed requirements in accordance with signal indication or increases speed above 30 MPH before leading wheels pass the next governing signal while operating under 9.1.8 or 9.1.12.

## 616 Operating Hand Brakes

### OBJECTIVE

This test determines that employees operate hand brakes properly.

### APPLICABLE RULES

Safety Rules S-13.6.1 and S-13.6.3 through 13.6.8

### PREPARATIONS / PROCEDURES

This test can be conducted any time employees are engaged in the activity of applying or releasing hand brakes on cars or locomotives.

### FAILURE DEFINED

The test is a failure any time an employee is observed operating a hand brake in a fashion inconsistent with existing rules. Pay particular attention to ensure:

- Feet are not used to manipulate hand brakes except to manipulate the pawl on horizontal wheel (staff) brakes.
- Feet are not placed on any moveable part of the car such as uncoupling levers or sliding sills.
- Employees do not reach through the wheel spokes to position the release lever or pawl.
- Steady pressure is used when applying hand brakes and the employee does not jerk the lever or wheel.
- The employee keeps their hands and clothing clear if the hand brake is of a design that allows the brake wheel to spin when releasing.
- Employee only operates the handbrake from the ground as prescribed by existing rules.

## 617 Operating Switches and Derails

### OBJECTIVE

This test determines that employees operate switches and derails properly. Additionally, that a verbal job briefing takes place regarding the operation of a hand operated main track switch in non-signaled territory.

### APPLICABLE RULES

Safety Rules S-13.7.1, S-13.7.2, S-13.7.3, S-13.7.4, S-13.7.5 and S-13.7.6; GCOR and MWOR 8.2, 8.3, 8.8, 8.12, 8.20; GCOR 14.10 and SSI #43

### PREPARATIONS / PROCEDURES

This test can be conducted any time an employee is engaged in the activity of operating a switch or derail including the operation of a hand operated main track switch or hand operated crossover switches.

Monitoring radio communications that all crew members conduct a verbal job briefing to confirm the position of the switch before a train or a train crew leaves the location where any hand operated main track switch is operated in non-signaled territory.

### FAILURE DEFINED

#### 617-1 Operating the Switch or Derail

- Employee stops the car, locomotive or other on track equipment less than 50 feet from the switch stand to be lined, and when possible less than 100 feet from the derail, except in an engine servicing area.
- Employee does not look in both directions watching for moving equipment.
- Employee does not inspect the switch to make sure it is not damaged, locked or spiked.
- Employee does not verify that ballast, ice, snow or other material do not foul the switch points.
- Employee removes the foreign material from between the switch point and the stock rail using their hands or feet.
- Employee operates a defective switch.
- Employee does not use good lifting practices and maintaining slow, even pressure (as required) when operating switch or derail.
- Employee does not reposition as required to maintain balance, control and proper ergonomics
- Employee is not alert for the possibility that a switch may be under compression which could result in handle movement when released from the latch or keeper slot.
- Employee does not make sure the switch is latched or secured by placing the lock or hook in the hasp if so equipped before movement over the switch.
- Employee does not secure the switch with the lock or hasp when equipped prior to departure from the location
- Employee does not report damaged or missing locks from the switch or derail equipped.



**617-2 Verbal job Briefing after operation of a hand operated main track switch in non-signaled or DT-ABS (excluding Restricted or Yard Limits)**

- The crew member does not verbally conduct the job briefing for the hand operated main track switch while physically at the switch location.
- A crew conducts the required job briefing after the train begins to depart the location where the hand operated main track switch was operated.
- A particular crew member does not provide their part of the required job briefing regarding the operation of a hand operated main track switch.
- A crew member does not provide all the required information when offering their part of the job briefing as required (occupation / title, name, switch location, position of the switch).

**617-3 Crossover Switches**

- The crew does not line both switches of a crossover before movement begins over the switch and through the crossover.
- The crew does not leave the crossover switches lined in the normal position except when in use or to provide protection.
- The crew does not leave the crossover switches not connected to a main track or siding in a corresponding position.

**DATA REPORTING**

This test has been designed to require a special code to be entered that will provide specific testing information. When prompted to enter a “Rule Book Code” the code to be entered is “T”. When prompted to enter a “Rule Number”, use one of the following codes based on your testing situation:

- Observation of employee who operates a switch or derail, use code: 617-1.
- When monitoring the communication by crew members when hand operated main track switches are used, use code: 617-2.
- Observation of crew members using crossover switches, use code: 617-3.

**618 Initial Terminal and Road Air Brake Test (Class 1)****OBJECTIVE**

The Initial Terminal Air Brake Test and Freight Car Safety Inspection determines that initial terminal air brake test requirements are met. This test will also be used when cars that have not been pre-tested are added to the train.

**APPLICABLE RULES**

GCOR 1.33; ABTH Rules: 100.1, 100.2, 100.3, 100.5, 100.6, 100.7, 100.8, 100.9, 100.10, 100.10.1, 100.12.2, 100.14, 100.18

**PREPARATIONS / PROCEDURES**

This test may be conducted at locations outlined in rule 100.9A Requirement for Test.

**From the cab of the lead or controlling locomotive:**

1. Verify that air brake system is charged as prescribed by Rule 100.10 (Procedure for Initial Terminal and Road Air Brake Test and Inspection).
2. Verify that, after receiving the proper signal, a 20-PSI service application is made.
3. Verify that the air flow method is properly used (Rule 100.9B), as follows:
  - Verify that the brake system has been charged to within 15 psi of the regulating valve setting.
  - Verify that the air flow meter does not exceed 60 psi or the airflow pointer is left of the calibration mark.
  - Verify that after the signal is received, a 20-psi brake pipe reduction has been made.



4. If the train does not meet AFM test conditions or is equipped with Distributed Power, verify a brake pipe leakage test (Rule 100.9C) is conducted as follows:
  - Verify that, after brake pipe exhaust ceases, 60 - second waiting period is observed.
  - Confirm that Automatic Brake Valve has been cut out or lapped.
  - Observe a second 60 - second waiting period.
  - Observe the leakage is then checked for 60 seconds and does not exceed 5 psi. Do not actuate during test.

**From the ground:**

5. Observe that an employee walks both sides of the train during the inspection to comply with the requirements of GCOR 1.33 and walks the set to determine:
  - The brakes apply on each car.
  - The brake riggings do not bind or foul.
  - The brake equipment parts are properly secured.
  - Brake cylinder piston travel on each car meets the requirements.
6. Verify that employee on the ground signals for release and determines brakes totally release on all cars.
7. Verify that employee walks the release or release may be observed as train departs.

Note: Observe that employee making the inspection re-tests any car whose brakes are found released prior to signal given to release the brakes and determines that brakes will remain applied on any such car for a minimum of 3 minutes.

**FAILURE DEFINED**

The test is a failure when employee fails to conduct an initial terminal test as required or fails to follow all proper procedures described above.

## 619 Transfer Train Movements

**OBJECTIVE**

The Transfer Train Air Brake Test and Freight Car Safety Inspection determine that Transfer train air brake test requirements are met.

**APPLICABLE RULES**

GCOR 1.33; ABTH Rules 100.1, 100.2, 100.3, 100.4, 100.5, 100.6, 100.7, 100.8, 100.8.1, 100.18

**PREPARATIONS / PROCEDURES**

This test may be conducted at locations where transfer and yard train movements are required.

Determine that a train making a transfer train and yard movement does not exceed 20 miles in one direction.

**From the cab of the lead or controlling locomotive:**

1. Verify that the air brake system has been charged to at least 60 psi as indicated by a gauge or device at the rear of the train.
2. Confirm that a 15-psi brake pipe reduction has been made.

**From the ground:**

3. Verify that brake pipe hoses have been coupled between all cars
4. Confirm that a gauge or portable device is used to measure train line pressure, that the rear of train is at least 60 psi
5. Verify that an employee walks both sides of the train during the inspection to comply with the requirements of GCOR 1.33 and walks the set to determine:
  - The brakes apply on each car
  - The brake riggings do not bind or foul
  - The brake equipment parts are properly secured
  - Brake cylinder piston travel on each car meets the requirements
6. Verify that employee on the ground signals for a release

Note: Observe that employee making the inspection re-tests any car whose brakes are found released prior to signal given to release the brakes and determines that brakes will remain applied on any such car for a minimum of 3 minutes.

**FAILURE DEFINED**

The test is a failure when employee fails to conduct a Transfer Train test as required or fails to follow all proper procedures described above.

## 620 Remote Control Operations

**OBJECTIVE**

This test determines compliance with specific operating requirements for remote control operation.

**APPLICABLE RULES**

System Special Instructions Item No. 23 and 49.

**PREPARATIONS / PROCEDURES**

This may be conducted at any location where remote control operations are in use. This test can be conducted only on employees utilizing remote control technology for the movement of their locomotives.

- Verify which locomotive(s) are using remote control.
- Determine which employees are assigned to the locomotive(s).

Monitor all aspects of the remote control operation using the RCO checklist as a guideline for determining compliance.

**Valid Certificate**

Ensure remote control operators have a valid certificate in his/her possession while operating remote control equipment.

**Setup and Testing**

Are employees complying with prescribed setup and testing procedures prior to operating a remote control system? Is the remote controlled locomotive operating on the appropriate frequency for the location? In lieu of the testing officer's actually being situated inside the locomotive during this procedure, much of the process can be determined by monitoring messages being transmitted by the radio. To actually validate the entire process was performed correctly and in the right sequence, qualified individuals can download the event recorder data for the testing/audit period.

Note: Refer to Trifold Reference Card for proper methods and procedures for initiating and ending remote control operations.

Note: Refer to Operator's Manual for modified RCT safety tests that should be performed when handing off control to relieving crews.

**Going Between Equipment**

Refer to Test No. 102 for going in between or working on the end of equipment. Record a “Y” in the RCO field when testing Remote Control Operations.

**Radios (Packsets)**

Does each operator have in their possession an operative holstered hand-held radio equipped with a microphone?

Note: Upper body mounted holsters or headsets that do not require removal of the radio for transmitting will satisfy this requirement.

**Shoving Moves**

Refer to Test No. 108 for shoving moves. Record a “Y” in the RCO field when testing Remote Control Operations.

**Pitching from One Crew Member to Another**

Is the receiving remote control employee being notified and acknowledging he/she is ready to receive the pitch and in a safe position to assume control before the pitch is made? With the GE remote system, this can be done via the remote control transmitter.

**Making Couplings**

When making couplings, does the remote control operator at the coupling have primary control of the remote control transmitter? Are couplings being made consistently at 1 MPH using “Couple”?

**Remote Control Zones**

Before activating a remote control zone, are employees ensuring that all switches and derails are properly lined and the zone is clear of trains, engines, railroad cars and men or equipment fouling the track before any initial pullout movement? Are the employees deactivating the zone at the end of their tour of duty; or, conducting a job/safety briefing with the relieving remote control job if the zone is to remain active?

**Moving Motorized Vehicles**

Operation of the remote control transmitter must not be performed from a moving motorized vehicle. Operator may ride in moving vehicle, but must STOP before operating RCT.

**Securing Equipment**

Remote control locomotives and remote control transmitters must not be left unattended unless secured and/or disabled. For remote control system purposes, “unattended” means remote control locomotive is not set up (linked) to an operating remote control transmitter in the possession of a crew member. When leaving equipment for meal period, break, etc., the remote control operator will secure remote control locomotive as required and turn the remote control transmitter power off (CANAC) or Sleep Mode (GE). When ending tour of duty, the remote control operator must place the locomotive in MANUAL mode unless being relieved by another remote control operator. If another remote control operator is relieving a remote control operator, a job/safety briefing must be held between the employees.

**Locomotive Daily and Mid-Trip Inspection**

Are employees determining whether daily inspection is required by checking the 229.21 (locomotive cab card)? If it is determined the locomotive needs inspecting, are they properly complying with ABTH RULE 101.2B before signing the cab card?

**Locomotive Air Brake Test**

When coupling to other locomotive equipment and a Locomotive Air Brake Test is required, are proper procedures being following per ABTH RULE 101.6?

### **Proper Operating Procedures as Trained**

Speed Selector vs. Independent Brake Override - A preponderance of the time, the operator should be using the Speed Selector (right-hand side of the remote control transmitter), NOT the Independent Brake Override (left-hand side of the transmitter) during normal switching operations. The Independent Brake Override should only be used during an emergency or when speed and distance to a coupling or spot has been miscalculated and more immediate independent brake cylinder pressure is required to stop the move. It should NOT be used as a consistent, normal method of operating remote control equipment.

### **Ending Remote Control Operations**

At the conclusion of the tour of duty, do the employees comply with procedures to end remote control operations? Do they properly condition the locomotive for lead and secure per the rules?

Note: Refer to Tri-fold Reference Card for proper methods and procedures for initiating and ending remote control operations.

### **FAILURE DEFINED**

This test will be recorded as a failure when the testing Supervisor detects any variance from the items listed in the RCO checklist.

Note: Data entry for this test will require the testing Supervisor to enter all items reviewed during the observation. This test has been designed to require a special code to be entered that will provide specific testing information. When prompted to enter a Rule Book Code the code to enter is R. When prompted to enter a Rule Number, use one of the following codes based on your RCO testing situation:

- When the test event is focused around Valid Certificate, use code RCO-1.
- When the test event is focused around Setup and Testing, use code RCO-2.
- When the test event is focused around Going between Equipment, use Test No. 102.
- When the test event is focused around Radios (Packsets), use code RCO-4.
- When the test event is focused around Shoving Moves, use Test No. 108.
- When the test event is focused around Pitching from One Crew Member to Another, use code RCO-6.
- When the test event is focused around Making Couplings, use code RCO-7.
- When the test event is focused around Remote Control Zones, use code RCO-8.
- When the test event is focused around Moving Motorized Vehicles, use code RCO-9.
- When the test event is focused around Securing Equipment, use code RCO-10.
- When the test event is focused around Locomotive Daily and Mid-Trip Inspection, use code RCO-11.
- When the test event is focused around Locomotive Air Brake Test, use code RCO-12.
- When the test event is focused around Proper Operating Procedures and Trained, use code RCO-13.
- When the test event is focused around Ending Remote Control Operations, use code RCO-14.

## 621 Roadway Worker Compliance for TY&E Employees

### OBJECTIVE

This test is designed to determine that train crewmen comply with the requirements regarding approach and interaction with roadway workers who may be on or near the track.

### APPLICABLE RULES:

GCOR: 5.8.1, 5.8.2, 6.3, 6.3.1, 6.4.1, 15.2.

### PREPARATIONS / PROCEDURES

This test may be performed anywhere it is observed that train crews are approaching roadway workers on or near the track. It may be performed where crews are working with MW employees in work train type duties or where crews have been notified that they will be governed by MW employee instructions. Additionally, this test may be performed where mandatory job safety briefings are required or when notification is made that the train is “joint” with MW employees or working limits have been established behind their train.

Supervisors may simulate roadway workers by wearing orange vests and either white or orange hard hats to test for the audible warning required by train crews.

Based upon the activity being observed, verify that the applicable GCOR rules are being applied by train crews to notify, protect and / or comply with valid instructions of roadway workers.

The test has been designed to require a rule number. When prompted to enter a Rule Book Code, the code to enter is G. When prompted to enter a Rule Number, enter the appropriate rule number based on your testing situation.

### FAILURE DEFINED

Failure to notify MW employees or comply with instructions within the confines of a track bulletin Form B (Rule 15.2).

Failure to sound the prescribed audible warnings when approaching roadway workers on or near the track (Rule 5.8.1 and 5.8.2).

Failure to have a job safety briefing with MW employees or determine the employee in charge of working limits prior to occupying a track within “joint” authority limits (Rule 6.3).

Failure to notify and have a job safety briefing with the employee in charge of the working limits prior to making a reverse movement after having been advised that working limits are being established “behind” their train (Rule 6.4.1).

Failure to comply with instructions from the employee in charge of working limits when using train coordination (Rule 6.3.1).

## 623 Class 1A Brake Test

### OBJECTIVE

This test determines that employees are properly performing an air brake test and inspection on trains at intervals of not more than 1,000 miles.

### APPLICABLE RULES

ABTH 100.9 and 100.12

### PREPARATIONS / PROCEDURES

This test must be performed on trains at no more than 1,000 mile intervals.

Inspectors must be qualified to perform the Class 1A Air Brake Test & Inspection.

Verify that the brake system is charged to within 15 psi of the regulating valve setting on the controlling locomotive, but no less than 75 psi.

Verify that the air flow meter does not exceed 60 psi or the airflow pointer is left of the calibration mark.

Verify that after a signal is received, a 20-psi brake pipe reduction is made.

If the train does not meet AFM test conditions or is equipped with Distributed Power, verify a brake pipe leakage test is conducted as follows:

Verify that after brake pipe exhaust ceases, a 60-second waiting period is observed.

Verify that the Automatic Brake Valve maintaining feature is cutout or lapped.

Verify that after the valve is cutout, a 60-second waiting period is observed.

Verify that the leakage is then observed for 60 seconds and it does not exceed 5 psi.

Verify that inspector(s) inspect both sides of the equipment while the cars are stationary to insure:

- The brakes apply on each car.
- The brake rigging does not bind or foul on each car.
- All air brake parts are properly secured on each car.
- Brake cylinder piston travel is correct on each car. If any car is observed with brakes that are not applied, a re-test of the car can be performed and the brakes must remain applied for a period of at least 3 minutes and must not release on its own during the observation.

Note: Data entry for this test requires the testing Supervisor to provide information relating to the specific craft being tested. To assist in the data reporting process please use the appropriate codes specific to the craft being tested. When prompted to enter a Rule Book Code, the code to enter for a mechanical employee is "M" and for an operating employee "O". When prompted to enter a Rule Number, use one of the following codes:

- For mechanical department tests, use code M-623
- For operating department tests, use code O-623

### FAILURE DEFINED

It is a failure any time an employee is observed not performing any of the required tasks.

## 624 Locomotive Daily Inspection—TY&E and Mechanical

### OBJECTIVE

The Locomotive Daily Inspection test verifies the (FRA Rule 229.21) daily inspection is properly performed and documented by the locomotive engineer, RC Operator, Hostler, or mechanical inspector as required.

### APPLICABLE RULES

ABTH 101.2

### PREPARATIONS / PROCEDURES

Identify locomotive(s) that required a daily inspection as outlined in ABTH 101.2

Inspect the FRA Rule 229.21 Daily Inspection form (cab card) in each locomotive for the following information being completed on the card:

- Date.
- Location.
- Time.
- Signature.

Make note of the inspected locomotive(s) number and date of inspection.

Validate that locomotive inspection reporting has been completed by one of the following methods:

- Review electronic records (TSS command LODYINQ).
- Review written daily inspection documentation as required by local instructions.

### FAILURE DEFINED

Locomotive daily inspection has not been performed as required.

Daily Inspection form (cab card) (FRA Rule 229.21) not properly completed.

Electronic reporting process not completed

or

Where required by local instructions, written locomotive inspection report form not completed and submitted at the designated location.

## 625 SCBA Instructions

### OBJECTIVE

This test will verify that employees who are operating where Self-Contained Breathing Apparatus (SCBA) are required to be used are compliant with division instructions.

### APPLICABLE RULES

Instructions found in division timetables, general orders or notices.

### PREPARATIONS / PROCEDURES

Officers prior to conducting observations for this application must review division instructions, timetables, general orders or notices regarding use of SCBA's and be familiar with their use.

Verify the location of observation does or will require the active possession by the employee of the SCBA for the territory they are or will be operating on.

Verify the employee properly checks out or returns the SCBA unit according to given instructions.

Verify the employee operating on the territory where the SCBA is required to be carried is currently certified in its use according to division instructions.

### FAILURE DEFINED

- The employee fails to have the SCBA unit in their possession for use as required by current division instructions.
- The employee fails to properly check out or return the SCBA unit according to current division instructions.
- The employee required to carry the SCBA is not currently certified regarding the use of the apparatus for the employee's particular trip.

## 626 Leaving Equipment in the Clear

### OBJECTIVE

This test determines that employees comply with the procedures for leaving rolling equipment and on-track maintenance-of-way equipment in the clear of a connecting track

### APPLICABLE RULES

GCOR 7.1, MWOR 7.1, and Mechanical Safety Rule 10.16

### PREPARATIONS / PROCEDURES

This test can be conducted where employees are required to leave rolling equipment or on-track maintenance-of-way equipment in the clear of a connecting track.

Verify that employees leave equipment beyond indicated clearance points.

However, if the clearance point is not indicated or visible, the employee determines the clearance point by standing outside the rail of adjacent track and extends their arm towards the equipment, and when unable to touch the equipment, leaves equipment at least an additional 50 feet into the track to ensure equipment is beyond the clearance point.

### FAILURE DEFINED

This test is a failure when either of the following is found:

- Unattended equipment is left standing between the indicated clearance point and the adjacent track switch.
- Where clearance point is not indicated or visible, procedure is not properly utilized to determine clearance point and location where equipment must be left standing.

Note: It is not a failure to leave equipment in the foul "if" the employee is attending the equipment and protecting it from on track movement.



## 627 Electronic Devices

### OBJECTIVE

This test is designed to determine employee compliance with electronic device restrictions.

### APPLICABLE RULES

GCOR 2.21, MWOR 1.10, TDOCOM 40.23, TDOCOM 55.22, Mechanical Safety Rules S-28.10

### PREPARATIONS / PROCEDURES

Procedures include visual observations and supervisor inquiry to determine if prohibitive use is occurring or devices are turned on or off. Two primary testing procedures will be used for this test:

- Observation that an employee is using an electronic device when device use is restricted  
or
- A determination that an electronic device is turned off (when required) per referenced rules or instructions

### TY&E Employees

When determining whether a device is turned on or off, supervisors are to use the following guidance when testing for personal electronic devices:

- Supervisors are prohibited from calling or text messaging an electronic device to determine compliance for this test
- Except when deadheading in other than a controlling locomotive, TY&E employees on duty must have each personal electronic device turned off and stowed out of sight with any earpiece removed from the ear when:
  - On moving rolling equipment or on track equipment.
  - Any member of the crew is on the ground performing safety related duties  
or
  - Any employee is assisting in preparation of the train, engine(s) or on-track equipment
- A TY&E employee may use a personal electronic device only for voice communication, texting, emailing or referencing rule books when the following conditions are met:
  - Rolling and on track equipment is stopped
  - A safety briefing is conducted and all members of the crew agree that the device can be used safely; and that it will not interfere with any safety related or required duty
  - No member of crew will foul any track
- Any other electronic device must remain turned off and stowed out of sight
- When no cellular phone or electronic device is in view and use of such device would be restricted, a supervisor may ask the employee if any such device is in the employee's possession. If answer is yes, supervisor will ask if device is turned off.

A personal electronic device used for voice communication, texting, emailing or referencing rule books must be turned off and stowed and out of sight when communication or use has been completed.

Railroad Supplied Electronic Devices may be used after a safety briefing is conducted and all members of the crew agree that the device can be used safely. Railroad operating employees may use such devices to send or receive work related information. These railroad supplied devices must not be used for purposes other than which it was intended or while:

- Operating the controls of a moving locomotive
- On the ground within 4 feet of any track

- On the ground and engaged in an active switching operation
- At the controls of the locomotive and any other employee is assisting in the preparation of the train, engine(s), or on-track equipment, including testing of railroad equipment or brakes.
- Verbally obtaining or releasing mandatory directives when railroad radio communication is available

#### **Other Craft Employees**

Any non-TY&E employee's cellular phone must be turned off and ear pieces removed while occupying the controlling cab of a moving train or engine. Additionally, other electronic devices (not capable of voice communication) may be used while occupying the cab of a train or engine only as duties require. Prior to using such a device, a job safety briefing must be held with all assigned crew members of the train and all agree how the use of the device can safely take place.

Any non-TY&E employee are not to use a cellular phone or other electronic device in an area restricted by rule.

#### **FAILURE DEFINED**

Failures that include any of the following observations:

#### **TY&E Employees**

- Personal electronic device is not turned off and stowed out of sight with any earpiece removed from the ear when on moving rolling equipment (Except during emergency or as provided by GCOR 2.5)
- Employees at the controls of a locomotive using a personal electronic device while a member of their crew is engaged in a safety related duty
- Employees on the ground using a personal electronic device while a member of their crew is engaged in a safety related task
- Crew members using a personal electronic device while conducting an inspection of a passing train
- Personal electronic device is turned "on" while engaged in any safety related task including an air brake test
- Employee is using a railroad supplied electronic device while train is moving if no job safety briefing with all crew members took place

#### **Other Craft Employees**

- Employees such as dispatchers, yardmasters, control operators, etc., are using a personal cell phone or electronic device in an area restricted by rule
- Mechanical employees' cellular phones are not turned off or ear pieces removed while occupying the controlling cab of a moving train or engine. (Except when train/engine is stopped or during technical evaluations as provided in S-28.10.)
- Mechanical employees are using personal electronic device while:
  - Engaged in moving cars, locomotives or other on track equipment
  - Foul of a track (within 4 feet of the nearest rail) unless Blue Signal protection has been established on that track
- Mechanical employees are using electronic devices not related to their duties
- Engineering employees' cellular phone not turned off and ear pieces removed while occupying the controlling cab of a moving train or engine
- Engineering employees' other electronic devices (not capable of voice communication) used while occupying the cab of a train or engine before a job safety briefing is held with all assigned crew members of the train and all agree how the use of the device can safely take place
- Engineering employee use of cellular phone or other electronic devices where prohibited by rule

## 696 Hazardous Shipments

### OBJECTIVE

This test is designed to validate that the crew has the required documentation, inspections and train placement for all hazardous material shipments in the train or cut of cars that are being handled.

### APPLICABLE RULES

US Hazardous Material Instructions for Rail in effect on BNSF Railway

### PREPARATIONS / PROCEDURES

This test can be conducted any time when contacting a crew to ensure they have a copy of all required information. It can also be performed when observing and inspecting trains and their associated crews.

No employee may accept a hazardous material shipment unless a member of the crew has each of the following documentation:

#### Shipping Papers:

A member of the crew must have a paper copy of acceptable shipping papers when accepting or delivering shipments at a customer's facility, interchange point, or other location; when moving shipments in a train, or switching shipments outside a yard. These papers are not required when moving shipments within a yard or at a customer's facility.

Any one of the following documents is an acceptable shipping paper for hazardous material shipments, as long as it includes the required shipping description entries, is legible, and is printed (manually or mechanically in English).

- Railroad-produced documents - for example, train consists, train lists, wheel reports, waybills, industry work orders, or other similar documents.
- Customer-produced documents - for example, bills of lading {including United Parcel Services (UPS) hazardous materials packets}, or switch lists.
- A connecting carrier's documents.
- A hand-printed document (printed, not cursive letters) - for example, radio waybills.
- A hazardous waste manifest.

#### Acceptable Emergency Response Information:

Any of the following documents is acceptable emergency response information:

- Emergency response information printed as part of the train list/consist.
- Emergency Response Guidebook (ERG).
- Similar information provided by the customer - for example, a Material Safety Data Sheet (MSDS).

#### Document Indicating Position in Train:

Before moving hazardous material shipments in a train, a member of the crew must have a document (train list) that shows the current position in the train of each hazardous material shipment (loaded and residue/empty). When the crew is making pickups or setouts, update the document before proceeding. A member of the crew must update the document by hand-printing on it or by appending or attaching another document to it. The train crew is responsible for the proper placement of hazardous material shipments in their train. See the train placement section in the US Hazardous Material Instructions for Rail and the associated charts for reference for trains and switching.

During an inspection a crew member must ensure that all required placards are consistent with the shipping paper information on any train or cut of cars. They must ensure placards are displayed on both sides and both ends of the shipment.

**FAILURE DEFINED**

Data entry for this test will allow the testing Supervisor to enter employee specific items reviewed during the testing observation. This test has been designed to require a special code to be entered that will provide specific testing information. When prompted to enter a “Rule Book Code” the code to be entered is “H”. When prompted to enter a “Rule Number”, use the code listed below based on your testing situation.

- When the crew does not have the required shipping papers for hazardous material shipments use 696-1.
- When the appropriate document (train list) indicating the current position in train of each hazardous material shipment is not correct use 696-2.
- When transporting a hazardous material shipment outside a yard or industry that does not have the proper placards attached or are missing them altogether use 696-3.

## 697 Switch Point Monitoring System

### OBJECTIVE

This test determines that crew members and dispatcher comply with the procedures for Switch Point Monitoring System which will alert the dispatcher that a main track switch may not be properly lined for an approaching train in non-sigaled TWC territory.

### APPLICABLE RULES

Subdivision specific general order or special instructions and dispatcher notices.

### PREPARATIONS / PROCEDURES

Identify the subject train and validate that train has authority beyond the switch to be tested. Contact the chief dispatcher for territory and coordinate testing event for both dispatcher and train crew.

There are two methods that can be used to test this system:

- 697-1** With the assistance of a signal supervisor or the signal supervisor's designee open the switch indication circuit. This will transmit a switch alert to the dispatcher who then must follow procedure outlined below.
- 697-2** With the assistance of a signal supervisor or the signal supervisor's designee power off the radio. Once the radio has been disabled switch can no longer communicate with the NOC. Since each switch location is only polled once every five minutes and must miss three polls before an alert is generated for the switch, alert may not be received by dispatcher for up to 15 minutes. Due to this design, testing should be set up well in advance of train arrival at location if train crew action is to be tested.

Under either scenario described above the dispatcher should receive an alert of indeterminate switch for that location. If the train is closely approaching the alerting switch, the train dispatcher may notify the crew verbally using the appropriate verbiage in the dialog box presented by CTWC database. If the train is not closely approaching the alerting switch, but has passed the last station (or if no siding at the last station and it is less than seven miles from the alerting switch), the train dispatcher is required to do the following: " Issue a new track warrant to the affected train that voids the authority over the alerting switch. Use box 1 in combination with box 2 or 3 and 20 to include the alerting switch.

If the train is authorized with a box 2, 3, or 4 track warrant and is not beyond the last station (or if no siding at the last station and the train is more than seven miles from the alerting switch), the dispatcher is required to: " Issue a new track warrant to the affected train that voids the authority over the alerting switch. Use box 1 in combination with box 2, 3 or 4 that ends at the alerting switch.

When a train crew is notified to be prepared to stop at an alerting switch, (either verbally or with a box 20 track warrant), the train must not proceed over the switch until a crew member inspects the switch from the ground. The position of the switch must be reported to the train dispatcher as soon as possible after the inspection. The dispatcher must not "normal" an alerting switch until it has been inspected by a field employee.

(TY&E) Determine that train stops short of switch and a crew member dismounts locomotive and performs ground inspection that switch is properly lined before proceeding over a switch when instructed verbally or by track warrant to be prepared to stop until known to be in the normal position, and advised by the train dispatcher of SPMS indeterminate alert status at that switch. Crew member must report to the train dispatcher as soon as possible the position of the switch after inspection is complete.

(Dispatcher) Trains must not be issued track warrants item 4 authority beyond any indeterminate switch. When an indeterminate switch alert is received, the dispatcher must promptly determine the location of the train with authority over the alerting switch and arrange to cancel the alert if the train has passed the alerting switch or notify the crew if train has not yet passed over the alerting switch.

### **TRAIN DISPATCHER CRITICAL PROCESSES ASSOCIATED WITH SWITCH POINT MONITORING SYSTEM (SPMS) TERRITORY**

- MUST when an alert is received, promptly determine the location of the train with authority over the alerting switch. If the train has passed the alerting switch, must perform a track release to cancel the alert. If the train is closely approaching the alerting switch, notify the crew verbally using the appropriate verbiage in the dialog box presented by CTWC. DS Notice
- MUST when an alert is received and train is determined to not be closely approaching the alerting switch but is past the last station or the last station has no siding and train is within 7 miles of alerting switch, void current authority and reissue a proceed authority with a box 20 for the alerting switch. DS Notice
- MUST when an alert is received and train is determined to not be closely approaching the alerting switch and is not past the last station or within 7 miles of the alerting switch, void current authority and reissue box 2, 3 or 4 authority that ends at the alerting switch. DS Notice
- MUST NOT restore alerting switch to “verified normal” position in CTWC until it has been inspected by a field employee. DS Notice
- MUST NOT issue track warrants to trains authorized by box 2 and/or 3 beyond an indeterminate switch until the train has departed the previous station to reaching the indeterminate switch location. DS Notice

Exception: If the last station previous to the indeterminate switch has no siding and is less than 7 miles from the indeterminate switch, authority may be issued beyond the indeterminate switch when the train is within 7 miles of the open/indeterminate switch. DS Notice

- MUST NOT issue track warrants to trains authorized by box 4 beyond any open/indeterminate switch. DS Notice

### **DATA REPORTING**

Data entry for this test will allow the testing Supervisor to enter specific test procedure used during the testing observation. This test has been designed to require a special code to be entered that will provide specific testing information. When prompted to enter a “Rule Book Code” the code to be entered is “G”. When prompted to enter a “Rule Number”, use the segment code 697-1 or 697-2 listed above based on your testing situation.

## **698 Inhalation Hazard Car Handling Instructions**

### **OBJECTIVE**

This test determines compliance with rules and procedures for handling of loaded tank car shipments that require the notation “Inhalation Hazard” and “Poison (Toxic) Inhalation Hazard”

### **APPLICABLE RULES**

General order, System Special Instructions, US Hazardous Materials Instructions for Rail, and Dispatcher Notices covering the handling of these shipments.

### **PREPARATIONS / PROCEDURES**

Review requirements applicable to the employee(s) and activity to be tested. Following procedures contain specific testing instructions for train dispatchers, engineering employees, and train or yard crews.

Note: Verify location specific requirements as defined in General Orders and / or Special Instructions.

#### **698-1 Train crew**

Verify conductor of train operating in non-signaled TWC territory on subdivisions identified in the Special Instructions and carrying two or more IH shipments (some routes may only require one shipment) contacts trains to be met or passed in a siding and determines that train in siding is stopped before IH train passes.

**698-2 Engineering employees**

Verify the responsible engineering employee has evaluated IH train route and informed the train dispatcher that the track evaluation is complete, noting any exceptions.

Verify authority is obtained to operate main track switches on non-signaled TWC subdivisions identified in the Special Instructions. Engineering employees may not operate a main track switch while using individual train detection (lone worker, or lookout for minor work or routine inspection) on these specified subdivisions.

Verify main track switches are not operated within Form B limits after the IH train route has been evaluated and before the IH train has passed.

**698-3 Train Dispatcher**

Verify IH train is not authorized prior to dispatcher receiving notification from track evaluator that route evaluation has occurred.

Verify the train dispatcher sends CAD IM to chief dispatcher with subdivision name and route evaluation completion time following notification by the responsible engineering employee.

Verify IH trains are not authorized without chief dispatcher approval if any exceptions are reported by the evaluator.

Verify that if evaluation is being performed during shift change, that fact is included on the train dispatcher transfer under heading "Listing of Hazardous Materials Instructions".

Verify that TIH/PIH Track Evaluation Form has been properly filled out and archived.

Verify no authorities are issued after route evaluation has been completed and before IH train has passed location where track will be entered.

**698-4 Train or Yard Crew (not including locomotive engineer)**

Verify compliance with following requirements while handling/switching any loaded tank car with SCHI code "IH":

During conventional (flat) switching operations:

- Must not be cut off in motion or "kicked."

During humping operations:

- Must not be "humped" into a clear track.
- Must not be "humped" or cut off until all preceding cars are in the clear of the lead.
- Must not cut off any cars to follow until the lead is clear.

**DATA REPORTING**

This test has been designed to require a special code to be entered providing specific testing information. When prompted to enter a "Rule Book Code" the code to be entered is "O". When prompted to enter a "Rule Number", use the code listed above based on your testing situation.



## **699 All Other Failures (Exceptions)**

Many observations can be made while performing daily activities. When rules compliance is observed, it is not always necessary to enter that fact as an operations test. A rules violation, however, can have a detrimental impact on the employees involved. When such violations are observed, the rule violation must be entered into the operations testing data base to allow management to have access to data which provides information about behavior. This information helps management to assign resources to problem areas in order to achieve the best possible safety.

Supervisors should re-test (observe) the employee of the exception failure. A “passing” observation for the employee who receives an OPT 699 failure (exception) can be entered. The 699 “passing” observation entry requires the supervisor to use the exact book code and rule number in order for the OPT system to accept the “passing” entry; and should be done within the time frame specified.

## **500 Series**

These tests are specific to Train Dispatcher / Control Operator functions. Only those supervisors responsible for testing train dispatchers / control operators will be authorized to enter these tests.

Field supervisors can only test dispatchers with the aid of another supervisor in the respective dispatching center or on site where control operator is working.

## **700 Series**

These tests are specific to BNSF owned passenger operations. Only those supervisors responsible for these areas will be authorized to enter tests in the 700 series.

## **800 Series**

Designated supervisors authorized to enter tests under the 800 series utilizing technology resources.



## Attachment A—Operations Testing Regulatory Program

January 1, 2009

The BNSF Railway operations testing program is designed to comply with Federal Regulations CFR §217.9, §217.11, and §218 subpart F. BNSF supervisors will conduct operations testing with particular emphasis on rule exceptions that cause or are likely to cause the most accidents or incidents such as those identified in CFR §218 subpart F.

BNSF supervisors will perform testing, auditing, and inspections for rules, policies, and regulations that require demonstrated compliance in meeting expectations. The term “Operations Testing” includes tests, audits, and inspections conducted by qualified supervisors through visual observation, technological review, or other means in validating and documenting performance.

### 1. Supervisor Qualification

Supervisors will be qualified on the rules, regulations, and policies in accordance with the operations tests they may conduct. Supervisors will receive appropriate field training as necessary to achieve proficiency on the operations tests they may conduct. Supervisors conducting operations testing will be qualified by one of the following methods:

- Supervisors on BNSF Railway promoted prior to 01/01/2009 will be surveyed via CBT (computer based training) to validate their competence to perform operations testing for the tests they conduct. Supervisors will self validate via the CBT program their qualified status to conduct these tests. Any identified qualification deficiencies will be addressed and corrected by the supervisor’s appropriate manager.
- Supervisors on BNSF Railway promoted after 01/01/2009 will complete training including the following; rules and operations testing training via classroom or CBT (computer based training), and appropriate field training.

Upon completion of the required training, the supervisor’s manager will provide electronic confirmation of the training and qualification status to the Senior Manager of Operations Testing. Designated managers and members of the System Rules Team are authorized to enter new supervisors into the operations testing system for the purpose of recording operations tests.

Documentation of transportation supervisor qualification on the relevant rules will be maintained by the General Director, Railroad Training Services or their designee. The documentation of officer qualifications will be made available upon request through the Senior Manager of Operations Testing or their designee by request from outside entities during normal business hours.

Supervisors will participate in re-occurring training programs to maintain qualified status on rules, regulations, and policies. All supervisors will participate in re-occurring operations testing training for the operations tests they may conduct.

### 2. Written Program

BNSF Railway will maintain a documented operations testing program. The program will include the appropriate Operations Testing Reference Guides, supplements, and applicable notices or instructions under the direction of the Division General Manager, Mechanical Shop Superintendent, and / or Senior Manager of Operations Testing or their designees. The program will be documented through identified electronic means.

The Operations Testing Reference Guide may provide elements deemed as “Failure Defined”, but may not include all exceptions that may be associated with the applicable rules identified for a particular test. The guide may contain special instructions regarding testing procedures and entry criteria for recording the test.

### 3. Operations Testing Frequency

CFR §218 Subpart F — Operations Testing Frequency — Objectives — Monthly Average by Division						
Division	108	613-2	617	617-2	626	627
California & LA	436	1	83	1	186	186
Chicago	285	2	60	2	106	106
Colorado	126	20	22	10	36	36
Gulf	221	8	73	8	128	128
Kansas	277	4	40	4	130	140
Montana	82	16	20	16	32	32
Nebraska	207	12	36	12	64	64
Northwest	284	15	75	15	112	112
Powder River	109	0	37	0	70	70
Southwest	170	12	39	12	86	86
Springfield	253	2	74	2	92	92
Texas	155	8	24	8	66	66
Twin Cities	349	36	95	36	70	70
System Total	2954	136	721	126	1162	1172

#### Operations Testing Purpose – CFR §218 Subpart F:

##### Operations Test 108 – Handling Cars Ahead of Engine

This test is designed to determine that train, engine and yard crews are in compliance with the requirement to provide necessary protection when handling cars ahead of engine(s). This test will also establish that proper communication has taken place prior to and during the shoving movement.

##### Operations Test 613-2 – Clear of Limits

This test is designed to audit for compliance the requirement to provide all required verbal information when releasing track warrant / permit authority and to determine that a train crew, without a crew member at the rear of the train operating in non-signaled or double track ABS territory, has validated that the entire train is intact and properly reported all required information to the train dispatcher as outlined by the rules.

##### Operations Test 617 – Operating Switches and Derails

This test determines that employees operate switches and derails properly. Additionally, that a verbal job briefing takes place regarding the operation of a hand operated main track switch in non-signaled territory.

##### Operations Test 617-2 – Verbal Briefing for Hand Operated Main Track Switches

This test verifies that a verbal job briefing after operation of a hand operated main track switch in non-signaled or double track ABS territory.

##### Operations Test 626 – Leaving Equipment in the Clear

This test determines that employees comply with the procedures for leaving rolling equipment and on-track maintenance-of-way equipment in the clear of a connecting track

##### Operations Test 627 – Cellular Phones / Electronic Devices

This test is designed to determine employee compliance with cellular phone and electronic device restrictions.

<b>Operations Testing Frequency — All Tests — Monthly Average by Division</b>				
Division	100 Series	200 Series	300 Series	600 Series
California & LA	1,345	556	493	1,374
Chicago	1,260	550	431	1,271
Colorado	358	208	157	641
Gulf	879	352	250	1,221
Kansas	1,150	337	370	1,209
Montana	419	365	315	845
Nebraska	569	321	239	903
Northwest	993	610	664	1,410
Powder River	572	389	451	808
Southwest	859	196	275	1,049
Springfield	911	455	437	1,488
Texas	673	315	222	737
Twin Cities	1,307	651	611	2,197
System Total	11,295	4,940	4,915	15,153

BNSF supervisors will conduct tests at various periods throughout the entire month. Testing activities should be included on weekends and holidays. Selecting certain days for testing or performing a large number of tests at one time or location should be avoided.

The Senior Manager of Operations Testing will review system objectives on an annual basis for the tests identified and communicate findings to the Division General Managers, Mechanical Shop Superintendents, and Managers of Safety. Testing objectives may be adjusted annually beginning February 1st, 2010 and then each calendar year thereafter. The above list of operations tests may be adjusted according to future needs based on periodic analysis, review, and / or regulation.

All BNSF Transportation, Engineering, Mechanical and Dispatching supervisors will conduct or exceed the minimum number of tests as listed in the quarterly reviews. Additional division or department specific operations testing expectations are internal to BNSF and are not part of this regulatory program.

#### **4. Operations Testing Records**

Qualified supervisors will record test observations in the computerized data entry system. This will include the date, time, place and result of each test. Each record entry will identify the supervisors administering the test. It is the responsibility of each supervisor to accurately reflect the testing observation in accordance with the operations test program of BNSF Railway in the record. If a record of a test or audit requires removal or correction and cannot be accomplished by the administering supervisor, the change may only be made upon formal request per the BNSF Operations Testing Reference Guide instructions.

Operations testing records will be kept in the authorized data system for BNSF. These records are the property of BNSF Railway and are not for any unauthorized distribution. All formal requests for operations testing records must be approved through the Senior Manager of Operations Testing or their designee. The Senior Manager of Operations Testing or their designee will determine the method of delivery of these records in accordance with the records policy of BNSF Railway and records will be provided during normal business hours.

Access to operations testing records is restricted to supervisors of BNSF Railway. Any internal means of delivery of part or all of these records for the various purposes to employees of BNSF does not include authorization to share any part or all of these records to any outside entity or party; nor does the internal delivery method constitute an authorized copy of operations testing records. Any review or analysis of operations testing records is considered an internal document only.

## 5. Periodic Reviews

The division quarterly reviews will identify exceptions related to transportation accidents and incidents that occurred on their division during the quarter. This review will include FRA reportable accident and incident data, results of operations testing, and other pertinent safety data. The review will also include the regulatory program minimum expectations, name of each testing officer and the number of tests conducted. The review will be completed by the 30th day following the end of the previous quarter. A copy of this review will be electronically submitted to the Division General Manager and Senior Manager of Operations Testing.

The Senior Manager of Operations Testing will conduct a six month review of the operations testing program. This review will ensure that the program is being utilized as intended and that the quarterly reviews have been properly completed. Six month reviews shall be completed no later than 60 days after the review period has ended.

The records of the above periodic reviews will be retained for a period of one year after the end of the calendar year to which they relate and shall be made available to representatives of FRA for inspection and copying during normal business hours.

## 6. Employee Instruction, CFR §217.11

BNSF Railway will provide on-going periodic instruction to employee's on rules as required by BNSF in relation to their craft designation. This instruction will include but not be limited to one or more of the following methods: CBT (computer based training), classroom instruction, briefings, safety marathons, field instruction, or other methods identified. Employees will be provided instruction on technology tools used in the performance of their duties.

Rules instruction and examinations will be conducted for train and engine service, engineering, mechanical, and dispatching employees triennially at a minimum and in relation to their craft designation, .

New employees will be required to complete the identified training program on applicable rules associated with their occupation designation. This will include documentation of their training and evaluation pertaining to these rules. This instruction will include but not be limited to one or more of the following methods: CBT (computer based training), classroom instruction, briefings, safety marathons, field instruction, or other method identified.

The General Director, Railroad Training Services or designee will maintain rules qualification records for BNSF transportation employees. These records will be made available via electronic means to the Senior Manager of Operations Testing and / or the Division Managers of Safety when requested by representatives of the FRA during normal business hours.

## Attachment B—015 Alcohol & Drug Observations

Observations recorded under number 015 are not considered Operations Tests under 49 CFR Part 217 for internal or Federal Reporting purposes. Results of supervisor observations are recorded in the Operations Testing Database in order to maintain a centralized repository of records. 015 observations are intended to satisfy Federal requirements to conduct employee drug/alcohol observations under 49 CFR Part 219.

### OBJECTIVE

This observation determines that employees are in compliance with GCOR Rule 1.5, MWOR Rule 1.5 and Safety Rule S-28.5.

### APPLICABLE RULES

GCOR and MWOR 1.5, Safety Rule S-28.5

### PREPARATIONS / PROCEDURES

The supervisor can make this observation when in close proximity with the employee and able to communicate face-to-face verbally to observe the employee's physical appearance and actions. Failure of this observation will result in handling of employee as described below.

### REQUIREMENTS

Performing this observation requires that the supervisor:

- Be in a position to communicate in person with the observed employee.
- If, as a result of your observations you find that the employee exhibits any signs of impairment (see Impairment Indicators below), the observation must be turned over to a supervisor who has been trained in "Signs and Symptoms Awareness".

Note: Follow up Drug/Alcohol Testing as a result of For Cause, Post Accident, or Random testing is not considered an Alcohol and Drug Observations and Reasonable Suspicion Observation.

### TESTING QUALIFICATIONS

Any supervisor may observe an employee for drug and alcohol observation purposes. If the employee exhibits any of the signs and symptoms listed under IMPAIRMENT INDICATORS, the employee must be observed by a supervisor who has completed the training program on Signs and Symptoms Awareness, or secure another supervisor who has completed the required training. If the employee exhibits any of the impairment indicators below, promptly arrange for an on-site collector to test the employee (within 2 hours), or take employee to a medical facility in accordance with BNSF's Reasonable Suspicion policy.

### IMPAIRMENT INDICATORS

Impairment indicators include:

- Identifiable odor of alcohol or controlled substances
- Flushed face, neck and/or head
- Dilated pupils
- Constricted pupils
- Redness/irritation around nasal area
- Uncoordinated gait
- Thick, slurred speech
- Poor motor coordination
- Glassy eyes
- Sleepiness and drowsiness

A complete list of impairment indicators may be found in BNSF Signs and Symptoms of Possible Alcohol and Drug Abuse. This document, as well as Signs and Symptoms Awareness training is provided by Employee Assistance Services, Corphealth, Inc., at (800) 383-2327.

- Arrange for a supervisor who has received “Signs and Symptoms Awareness” training
- Arrange for a breath alcohol test and a urine drug screen
- Withhold employee from service pending investigation
- Arrange handling according with FRA CFR 49, Section 240 (Engineer Certification)
- Arrange employee’s transportation off the property
- Provide for the safety and securement of the train, if required

Note: When an employee is Drug/Alcohol Tested under Reasonable Suspicion as a result of a Drug/Alcohol observation, do not enter results into the computer system until it is known if employee tests positive or negative for drugs or alcohol. If the employee results are negative, enter this test as a “pass”. If the employee tests positive, enter results as a “failure.”

**DATA ENTRY**

The supervisor will enter this observation using number ‘015’.

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SPEED TABLE								
Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour	Time Per Mile		Miles Per Hour
Min.	Sec.		Min.	Sec.		Min.	Sec.	
-	36	100	-	58	62.1	1	40	36.0
-	37	97.3	-	59	61.0	1	42	35.3
-	38	94.7	1	-	60.0	1	44	34.6
-	39	92.3	1	02	58.0	1	46	34.0
-	40	90.0	1	04	56.2	1	48	33.3
-	41	87.8	1	06	54.5	1	50	32.7
-	42	85.7	1	08	52.9	1	52	32.1
-	43	83.7	1	10	51.4	1	54	31.6
-	44	81.8	1	12	50.0	1	56	31.0
-	45	80.0	1	14	48.6	1	58	30.5
-	46	78.3	1	16	47.4	2	-	30.0
-	47	76.6	1	18	46.1	2	05	28.8
-	48	75.0	1	20	45.0	2	10	27.7
-	49	73.5	1	22	43.9	2	15	26.7
-	50	72.0	1	24	42.9	2	30	24.0
-	51	70.6	1	26	41.9	2	45	21.8
-	52	69.2	1	28	40.9	3	-	20.0
-	53	67.9	1	30	40.0	3	30	17.1
-	54	66.6	1	32	39.1	4	-	15.0
-	55	65.5	1	34	38.3	5	-	12.0
-	56	64.2	1	36	37.5	6	-	10.0
-	57	63.2	1	38	36.8	12	-	5.0

FEET	TENTHS OF A MILE
528	.1
1,056	.2
1,584	.3
2,112	.4
2,640	.5
3,168	.6
3,696	.7
4,224	.8
4,752	.9

## ***TERMSDXO***

T - Trains

E - Engines

R - Railroad cars

M - Men & equipment fouling track

S - Stop signal

D - Derail or switch lined improperly

X - Crossings at grade

O - Other crew movements

**Remember “TERMSDXO” when shoving cars**

To assist in determining where to start sounding the whistle as described in Whistle Signal 7, use the following:

At the speed indicated in the left column, wait the time indicated in the right column before sounding the whistle.

Train Speed	Delay to Sound Whistle
40 MPH	3 seconds
35 MPH	6 seconds
30 MPH	10 seconds
25 MPH	16 seconds
20 MPH	25 seconds
15 MPH	40 seconds
10 MPH	1 minute 10 seconds